## GLENDALE COMMUNITY COLLEGE



Academic Catalog 2023-2024

A MARICOPA COMMUNITY COLLEGE

## Table of Contents

Welcome to Glendale Community College ..... 13
Message from GCC President, Tiffany Hernandez, Ph.D., J.D ..... 13
Get Your Bachelor's Degree at GCC ..... 13
Making It Happen in Glendale Since 1965 ..... 13
History of GCC Main ..... 14
History of GCC North ..... 14
About Us ..... 14
Accreditation ..... 14
Values, Vision \& Mission ..... 14
Learning Environment. ..... 15
Assessing Student Learning ..... 16
Strategic Planning ..... 16
Compliance Disclosures ..... 17
Diversity ..... 18
Sustainability on Campus ..... 19
Near-Z Cost Learning Materials ..... 19
Academic Calendar ..... 20
Academic Policies ..... 21
Arizona General Education Curriculum. ..... 21
Arizona General Education Curriculum-Arts ..... 22
Arizona General Education Curriculum-Business ..... 23
Arizona General Education Curriculum-Science ..... 24
Description of AGEC Designations ..... 25
Academic Certificates ..... 26
Associate in Applied Science Degree and General Education Requirements ..... 27
Associate in Arts Degree ..... 28
Associate in Arts, Elementary Education Degree ..... 30
Associate in Arts, Fine Arts Degree ..... 33
Associate in Business, General Requirements Degree ..... 35
Associate in Business, Special Requirements Degree ..... 38
Associate in General Studies Degree and General Education Requirements ..... 40
Associate in Science Degree ..... 44
Bachelor of Arts Degree ..... 47
Graduation Requirements ..... 49
First Year Experience ..... 49
General Graduation Requirements ..... 49
Maricopa Community Colleges Allied Health or Nursing Program ..... 50
Catalog Under Which A Student Graduates ..... 52
University Transfer ..... 53
University Transfer ..... 53
General Academic Policies for Associate Degrees Designed for University Transfer ..... 53
Transfer Pathways ..... 55
Academic Departments ..... 57
Art and Humanities. ..... 57
Automotive Technology ..... 57
Biology ..... 57
Business and Information Technology ..... 58
Chemistry ..... 59
Communication and World Languages ..... 59
Counseling ..... 60
English, Reading, Journalism and Creative Writing ..... 60
Fitness and Wellness ..... 61
Library ..... 61
Mathematics and Computer Sciences ..... 61
Nursing ..... 62
Performing Arts ..... 62
Philosophy and Religious Studies. ..... 62
Physical Sciences ..... 63
Psychology ..... 63
Public Safety Sciences ..... 63
Social Sciences ..... 64
Technology and Consumer Sciences ..... 65
Programs of Study ..... 67
Accounting, Banking, and Finance ..... 67
Administration of Justice ..... 67
Aerospace Studies ..... 68
Anthropology ..... 68
Astronomy ..... 69
Automotive Service. ..... 69
Behavioral Health Sciences ..... 70
Biochemistry ..... 71
Biology/Biological Sciences ..... 71
Business ..... 72
Business and Organizational Management ..... 73
Business and Personal Computers ..... 73
Chemistry ..... 74
Communication ..... 74
Communication Sciences and Disorders ..... 76
Computer Assisted Design and Drafting ..... 76
Computer Information Systems. ..... 77
Computer Science ..... 77
Counseling ..... 78
Creative Writing ..... 79
Dance ..... 79
Desktop Support ..... 79
Digital Arts ..... 80
Early Childhood Education. ..... 80
Economics ..... 81
Education ..... 81
Emergency Medical Technology ..... 82
Emergency Response Management ..... 83
Engineering ..... 83
English. ..... 84
English Literature ..... 84
Entrepreneurial Studies ..... 85
Ethnic Studies ..... 85
Exercise Science ..... 85
Family Studies ..... 86
Film. ..... 87
Fine Arts ..... 87
Fire Science ..... 88
Forensic Science ..... 88
Geography ..... 89
Geology ..... 89
History ..... 91
Honors Program ..... 91
Humanities ..... 91
Information Studies and eSociety ..... 92
Journalism ..... 92
Languages ..... 92
Law and Policy ..... 93
Marketing ..... 93
Mathematics ..... 94
Microsoft Certification Preparation ..... 94
Military Science ..... 94
Music/Music Education/Music Performance ..... 95
Music Industry Studies ..... 96
Musical Theatre ..... 96
Networking and Security ..... 96
Nursing. ..... 97
Nutrition and Dietetics ..... 98
Paramedicine ..... 98
Philosophy ..... 99
Photography ..... 99
Physics ..... 99
Political Science ..... 100
Pre-Forestry ..... 100
Pre-Health ..... 101
Pre-Law ..... 102
Programming and Mobile Applications ..... 103
Psychology ..... 103
Reading ..... 105
Real Estate and Real Estate Appraisal ..... 105
Religious Studies ..... 105
Social Work ..... 106
Sociology ..... 106
Sustainability ..... 107
Sustaining and Advancing Indigenous Nations ..... 107
Theatre ..... 107
Video Game Production ..... 108
Web Design and Web Development ..... 108
Women and Gender Studies ..... 109
Fields of Interest ..... 110
Applied Technology ..... 110
Behavioral Science and Human Services. ..... 110
Business, Entrepreneurialism, and Management ..... 111
Computer and Information Technology ..... 111
Culture and Society. ..... 112
Education ..... 112
Health Sciences ..... 113
Science, Technology, Engineering and Mathematics ..... 113
Visual and Performing Arts ..... 113
Degrees ..... 115
Bachelor's Degree ..... 115
Elementary Education and Special Education ..... 115
Associate in Applied Science ..... 118
Accounting ..... 118
Administration of Justice Studies ..... 119
Administrative Professional ..... 121
Animation and Time-Based Media ..... 122
Architectural and Civil CAD Technology ..... 123
Audio Production Technologies ..... 125
Automotive Service ..... 126
Behavioral Sciences ..... 127
Biotechnology and Molecular Biosciences ..... 128
Cybersecurity ..... 130
Digital Media Arts ..... 132
Early Childhood Education ..... 133
Engineering Technology. ..... 134
Exercise Science: Health, Fitness, and Sports Performance ..... 136
Film and Media Production. ..... 137
Fire Science ..... 139
Fire Service Management ..... 140
Forensic Science ..... 141
General Business. ..... 142
Information Security ..... 143
Information Technology ..... 144
Law Enforcement Training ..... 150
Management ..... 151
Marketing and Sales ..... 152
Music Industries: Music Business ..... 152
Network and Systems Administration ..... 154
Nursing ..... 156
Organizational Management ..... 158
Paramedicine ..... 159
Photography ..... 160
Programming and Systems Analysis ..... 162
Retail Management ..... 163
Video Game Production ..... 164
Web Design/Development ..... 166
Certificates ..... 168
Academic Certificates ..... 168
Chicana and Chicano Studies ..... 168
Communication Competence in the Workplace ..... 168
Communication Skills for Non-Native English Speakers ..... 169
Creative Writing ..... 169
Language Studies ..... 170
Oral Communication Fluency for Non-Native English Speakers ..... 171
Sustainability. ..... 171
Certificates of Completion ..... 172
Accounting ..... 172
Administration of Justice ..... 172
Administrative Professional ..... 173
Adobe Foundations: Animation and Graphics Production. ..... 173
Advanced Behavioral Sciences ..... 173
Amazon Web Services Cloud Associate ..... 174
Amazon Web Services Cloud Practitioner. ..... 175
Amazon Web Services Cloud Specialist ..... 175
Animation ..... 176
Audio Production Technologies ..... 176
Automotive Automatic Transmission and Transaxle ..... 177
Automotive Brake Systems ..... 177
Automotive Chassis ..... 178
Automotive Drive Train ..... 178
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems ..... 178
Automotive Electronic/Electrical Systems ..... 179
Automotive Engine and Operations Management ..... 179
Automotive Engine Management and Repair ..... 179
Automotive Engine Repair ..... 180
Automotive Heating, Ventilation and Air Conditioning Systems ..... 180
Automotive Maintenance and Light Repair ..... 180
Automotive Manual Drive Train and Axles ..... 181
Automotive Service ..... 181
Automotive Steering and Suspension ..... 182
Business Administration Fastrack ..... 182
CAD Application ..... 182
CAD Fundamentals ..... 183
Certified Bookkeeping ..... 183
Child and Family Organizations Management and Administration ..... 184
Cisco Certified Network Professional: Enterprise Advanced Routing and Services ..... 184
Cisco Certified Network Professional: Enterprise Core ..... 185
Cisco Network Administration: CCNA ..... 185
Cisco Network Administration: CCNP ..... 186
Cisco Network Administration and Security ..... 187
Commercial and Freelance Photography ..... 187
Commercial Real Estate ..... 188
Community Health Paramedicine ..... 188
Computer System Configuration and Support ..... 189
Computer System Configuration and Support, Linux. ..... 189
Computer System Configuration and Support, Network ..... 190
Computer System Configuration and Support, Security ..... 190
Corrections ..... 191
Crime Scene Investigation ..... 191
Critical Care Paramedicine ..... 192
Critical Infrastructure ..... 192
Cyber Engineering ..... 192
Cyber Operations ..... 193
Cybersecurity Fundamentals ..... 194
Desktop Support ..... 194
Developmental Disabilities Specialist ..... 195
Documentary Film Production ..... 196
Driver Operator ..... 196
Early Childhood Education ..... 196
Emergency Management ..... 197
Emergency Medical Technology ..... 198
Emergency Medical Technology Comprehensive ..... 198
Enrolled Agent ..... 199
Entrepreneurial Studies Level I ..... 199
Entrepreneurial Studies Level II ..... 199
Fingerprint Identification and Photography ..... 200
Fire Service Management ..... 200
Firefighter Operations ..... 200
Foundations of Behavioral Sciences ..... 201
Foundations of Early Childhood Education ..... 201
General Business. ..... 202
Health and Wellness Coaching ..... 202
Homeland Security ..... 203
Human Resources Management ..... 203
Infant and Toddler Development ..... 203
Information Security Technology ..... 203
iOS App Development. ..... 204
Law Enforcement ..... 204
Law Enforcement Investigation ..... 205
Law Enforcement Training Academy ..... 205
Leadership in Public Safety Organizations ..... 206
Legal Studies ..... 206
Linux Associate ..... 206
Linux System Administration ..... 207
Management ..... 207
Marketing ..... 208
Microsoft Desktop Associate ..... 208
Microsoft Office Professional ..... 208
Microsoft Office Specialist ..... 209
Microsoft System Administration ..... 209
Music Business I ..... 210
Music Business II ..... 210
Non-Sworn Fire Service Professional ..... 211
Nurse Assisting. ..... 211
Organizational Leadership ..... 212
Paramedicine ..... 213
Personal Training ..... 213
Personal Training: Advanced ..... 214
Practical Nursing ..... 215
Programming and Systems Analysis Level I ..... 217
Programming and Systems Analysis Level II ..... 217
Real Estate: Prelicense ..... 218
Red Hat Linux Administrator ..... 218
Red Hat Linux Engineer ..... 219
Retail Management ..... 219
Securities Industry Essentials ..... 220
Security Industry Essentials: Pre-licensure ..... 220
Small Business Management Level I ..... 220
Small Business Management Level II ..... 221
Social Media Marketing ..... 221
Tactical Emergency Casualty Care ..... 222
Technical Theatre: Audio Technician ..... 222
Technical Theatre: Costuming ..... 222
Technical Theatre: Stage Crew Technician ..... 223
Victimology ..... 223
Video Game Production: Audio and Sound ..... 223
Video Game Production: Coding and Scripting ..... 224
Video Game Production: Game Art ..... 224
Video Game Production: Game Narrative ..... 225
VMware Foundations ..... 225
VMware Network Administrator ..... 226
VMware Systems Administrator ..... 227
Web App Development ..... 227
Web Design ..... 228
Web Development ..... 228
Web Foundations ..... 229
Faculty and Administration ..... 230
MCCCD Governing Board ..... 230
MCCCD Administration ..... 230
GCC Administration ..... 230
GCC Administration Emeritus ..... 230
GCC Faculty ..... 230
GCC Faculty Emeritus ..... 233
Appendices ..... 236
Appendix A - Math Course Sequence Pathways Flowchart ..... 236
Appendix B - MCCCD Academic Calendar 2023-2024 ..... 237
Appendix C - Maricopa Community Colleges Field of Interest Matrix: 2023-2024 ..... 241
Applied Technology ..... 241
Behavioral Science and Human Services ..... 243
Business, Entrepreneurialism, and Management ..... 244
Computer and Information Technology ..... 245
Culture and Society ..... 247
Education ..... 248
Health Sciences ..... 248
Science, Technology, Engineering and Mathematics. ..... 250
Visual and Performing Arts ..... 251
Appendix D - Fast Track Certificates ..... 253
Appendix E - Degrees with Summer 2023 Final Term ..... 254
Administration of Justice Studies ..... 254
Administrative Professional ..... 255
Animation and Time-Based Media. ..... 256
Audio Production Technologies ..... 257
Automotive Service ..... 258
Behavioral Sciences ..... 260
Biotechnology and Molecular Biosciences ..... 261
Digital Media Arts ..... 262
Early Childhood Education ..... 263
Exercise Science: Health, Fitness, and Sports Performance ..... 265
General Business. ..... 266
Law Enforcement Training ..... 267
Nursing ..... 268
Photography ..... 270
Video Game Production ..... 271
Appendix F - Certificates with Summer 2023 Final Term ..... 274
Advanced Behavioral Health Sciences ..... 274
Audio Production Technologies ..... 275
Automotive Automatic Transmission and Transaxle ..... 275
Automotive Brake Systems ..... 275
Automotive Chassis ..... 276
Automotive Drive Train ..... 276
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems ..... 276
Automotive Electronic/Electrical Systems ..... 277
Automotive Engine Performance ..... 277
Automotive Engine Repair ..... 277
Automotive Engine Repair and Performance ..... 278
Automotive Heating, Ventilation and Air Conditioning Systems ..... 278
Automotive Maintenance and Light Repair ..... 279
Automotive Manual Drive Train and Axles ..... 279
Automotive Service ..... 279
Automotive Steering and Suspension ..... 280
Basic Behavioral Health Sciences ..... 280
Biomedical Equipment Technology ..... 281
Commercial Real Estate ..... 281
Crime Scene Investigation ..... 282
Developmental Disabilities Specialist ..... 282
Early Childhood Education ..... 282
Emergency Medical Technology Comprehensive ..... 283
Fingerprint Identification and Photography ..... 284
Foundations of Early Childhood Education ..... 284
General Business ..... 284
Homeland Security ..... 285
Kubernetes Administration ..... 285
Kubernetes Application Development. ..... 285
Kubernetes Security ..... 285
Personal Training ..... 286
Personal Training: Advanced ..... 286
Programming and Systems Analysis Level II ..... 287
Real Estate: Prelicense ..... 288
Small Business Management Level I ..... 288
Small Business Management Level II ..... 289
Victimology ..... 289
Video Game Production: Audio and Sound ..... 289
Web Design. ..... 290
Appendix G - Glossary of College Terminology ..... 291

# Welcome to Glendale Community College 

## Message from GCC President, Tiffany Hernandez, Ph.D., J.D.

Welcome to Glendale Community College! As a native Arizonan and proud graduate of Arizona's public schools, I am deeply committed to the excellence in education that Glendale Community College provides for all who seek opportunities for themselves and their families. Together with our dedicated faculty, staff, and student leaders, I am committed to our mission of preparing students for further higher education, employment
 and advancement, and successful participation in a global society.

As you travel your academic journey with us, take time to explore the educational possibilities we have to offer. With over 100 degrees and certificates leading to success at your transfer university or the job you've been seeking, I'm confident that you will find the pathway that aligns with your goals. With classes available both in-person and online, you can create a schedule that fits into your life.

At Glendale Community College, you will experience academic rigor that challenges you to learn and think deeply about your chosen area of study and the world around you. Outside of the classroom, you will have the support you need to succeed academically and to engage with your fellow students and the community in the West Valley. I encourage you to use the many services we offer, such as tutoring, advising, and career services. Get involved in the vibrant life of the college by joining student organizations, honor societies, and our championship athletics teams. Most importantly, get to know our faculty who are experts in their fields and our staff who are passionate about helping you navigate your college journey and reach your goals. Everyone is here for one purpose: Your Success!

Glendale Community College has been serving the West Valley for over 50 years. We are proudly designated a Hispanic Serving Institution (HSI) and are committed to an environment of inclusivity and belonging. We focus on the strengths of our students and are dedicated to helping you achieve your dreams through innovation, student-centered teaching, and community partnerships.

It is my deepest honor and a privilege to serve as Glendale Community College's ninth president. Thank you for choosing us as your partner in education; I'm so glad you're here!

## Get Your Bachelor's Degree at GCC

Welcome to the 2023-2024 academic year at Glendale Community College (GCC). We are looking forward to another great year ahead of learning, growth, and community!

This year, we are especially excited to launch our first-ever bachelor's degree program in Elementary Education and Special Education (Bachelor of Arts).

If you're thinking about getting your bachelor's degree and are interested in K-12 education, this is an excellent opportunity to do it.

Our program is affordable, convenient, and high qualityoffering personalized support, small class sizes, and flexible schedules to foster your success and achievement. While we hope you take all of your classes at GCC, with this program you have the flexibility to take up to 90 credits of the required courses at any of the 10 Maricopa Community Colleges. The upper division ( 300 and 400 level) courses for this major are only offered at GCC, Paradise Valley Community College, and Rio Salado College.

A bachelor's degree from GCC is a great investment in yourself and your future.

Our elementary education degree prepares students to share their love of learning with the next generation. Earning the BAEE can serve as a pathway for entering the field of education and provides you with the skills and training necessary to be prepared for a career in the fast-growing field, with greater job security, opportunities for advancement and competitive wages.

Learn more about all the bachelor's degree opportunities at Maricopa Community Colleges.

## Making It Happen in Glendale Since 1965

Education has the power to inspire growth and change lives. Since 1965 Glendale Community College has welcomed over 500,000 students as they worked towards graduating with twoyear degrees, transferring to a university, completing new career training, or finishing an occupational certificate.

Glendale Community College upholds the guiding principles and foundations of the Maricopa Community College District and works to serve the diverse and evolving needs of students and the community.

Welcome to Glendale Community College.

## History of GCC Main

In 1965, Glendale welcomed the first community college in the West Valley. Housed in temporary facilities at the Camelback and Maryland extensions of Phoenix College, 1,974 students enrolled in liberal arts classes at the brand-new Glendale Community College.

By September the following year, the college had moved to its permanent home at 59th Avenue and Olive Avenue. The sprawling 147-acre campus was anchored by 226 majestic palm trees that line the central mall. These beautiful and stately trees were part of the original ranch and were carefully moved and replanted during construction. The look of the iconic palm was incorporated into the main architectural elements used throughout campus and is prominent in the official campus logo.

The Northwest Valley population exploded in the 1980s and 1990s and with it, the need for affordable higher education. In 2000, the GCC North campus opened at 57th Avenue and Happy Valley Road. In 2004 a bond election provided capital funds for critical expansion and renovations to main campus facilities. The most recent additions, the Public Safety Science and Life Sciences buildings, incorporate innovative, hands-on teaching facilities, collaborative environments and LEEDcertified design.

Keeping pace with rapid population growth and growing business needs, GCC continues to expand community development efforts and partnerships that contribute to the economic vitality of Glendale, the West Valley and Maricopa County.

Glendale Community College remains focused on serving the community, sustainability, strategic growth, advancing technology, continuing its commitment to student success, building on a reputation of quality education and striving to inspire excellence in all who attend.

## History of GCC North

In 1994, \$2 million from Maricopa Community Colleges Capital Development Bond was allocated to be used to provide initial site development such as sewer, water, electricity, and parking for the 20,000 square-foot campus. In 2004, $\$ 25$ million from Maricopa Community Colleges Capital Development Bond was allocated to be used to expand and create a master plan for the GCC North site. Fall 2008, phase one of the GCC North Master Plan opened adding 67,000 square feet of new facilities and services.

- 75-acre site at 57th Avenue and Happy Valley Road purchased with monies approved in the 1984 Maricopa Community Colleges Capital Development Plan.
- $\$ 2$ million of capital monies provided 10,000 square feet of classrooms, study areas, student support services, and offices.
- $\quad \$ 25$ million of capital monies approved to provide a master plan and additional 67,000 square feet of new services and facilities.


## About Us

## Accreditation

Glendale Community College is accredited by the Higher Learning Commission (HLC). For more information see www.ncahlc.org.

GCC completed its previous Reaffirmation Accreditation in April 2012. Our accreditation relationship has continued with the Higher Learning Commission on the Open Pathway.

The Maricopa Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN).

Some GCC programs are also accredited/approved by:
Arizona Peace Officer Standards and Training Board (AZPOST)
2643 E. University Drive
Phoenix, AZ 85034
(602) 223-2514

## Values, Vision \& Mission

## GCC Values

Glendale Community College is guided by six core values:

- Learning - Provide comprehensive and transformative experiences to assist students in achieving their personal, academic, and career goals.
- Quality - Assure excellence in instructional and support services through employee development and continuous assessment for optimal results.
- Integrity - Demonstrate an unwavering commitment to honesty, transparency, and accountability.
- Inclusiveness - Promote a community that supports diversity, equity, and social justice.
- Community - Foster a culture that enables positive internal and external relationships based on mutual respect, trust, and a sense of belonging.
- Future-Focused - Enhance innovative and forwardthinking perspectives and approaches to prepare students for evolving educational, workforce, and societal needs.


## GCC Vision

Glendale Community College fosters student success by providing innovative, quality learning experiences for all members of the community.

## GCC Mission

Glendale Community College prepares students for further higher education, employment and advancement, and successful participation in a global society.

## Learning Environment

## Guiding Principles

Maricopa's Excellence in Teaching and Learning Guiding Principles provide an overarching framework for defining who we are and how we engage students in transformative ways.

We actualize these principles at Glendale Community College (GCC) by committing to create learning environments that align with GCC's institutional values and intentionally move students toward the achievement of our institutional learning outcomes.

## Because we value LEARNING, our learning environments ...

- Provide comprehensive and transformative experiences that help students achieve their personal, academic, and career goals
- Spark intrinsic interest in course content and challenge students through problem-solving, analyzing, synthesizing, and evaluating ideas
- Assume intelligence and abilities can grow with experience
- Engage students in hypothesizing and then testing their conceptual understanding
- Teach students to create and assess different types of information and ways of knowing
- Encourage students to take risks, receive feedback, and build resilience to try again

Because our learning environments are designed in this way, our students are able to demonstrate critical and creative thinking skills as well as quantitative reasoning and analysis.

## Because we value QUALITY,

 our learning environments ...- Assure excellence in instruction and support services and continuous assessment for optimal results
- Engage students in deep learning in which they challenge their existing paradigms to evaluate the merit of their own ways of thinking
- Encourage students to take responsibility and selfregulate their own learning so the quality of their
educational experiences extends beyond an individual class
- Provide students opportunities to test their understanding and apply their knowledge through real-world experiences

Because our learning environments are designed in this way, our students are able to demonstrate information literacy.

## Because we value INTEGRITY, our learning environments ...

- Demonstrate unwavering commitment to honesty, transparency, and accountability
- Ensure fair and honest consideration of student work
- Encourage students to strive to be the best students they can be both in terms of character and commitment
- Provide students a sense of control over and responsibility for their own learning
- Help students develop ethical principles and an understanding of the world
- around them

Because our learning environments are designed in this way, our students are able to demonstrate responsible decisionmaking that leads to personal and community well-being.

## Because we value INCLUSIVENESS, our learning environments ...

- Cultivate and support diversity, equity, and social justice
- Develop cultural awareness and sensitivity
- Attend to students' intellectual, emotional, and physical well-being to ensure a sense of belonging and empowerment
- Build connections among different people, disciplines, and perspectives

Because our learning environments are designed in this way, our students are able to demonstrate awareness and appreciation of diversity.

## Because we value COMMUNITY, our learning environments ...

- Foster a culture that enables positive relationships based on mutual respect, trust, and a sense of belonging
- Ensure students believe we have confidence in their ability to learn and they believe that they can learn
- Afford opportunities for students to collaborate with other learners who are struggling with the same problems
- Encourage teamwork and an understanding of how students can share their skill set with others at multiple levels of society (locally, nationally, and globally)
- Cultivate student understanding of the importance of being a responsible citizen

Because our learning environments are designed in this way, our students are able to demonstrate the communication skills necessary for effective oral, written, and visual communication.

## Because we value being FUTURE-FOCUSED, our learning environments ...

- Enhance innovative and forward-thinking perspectives and approaches to prepare students for evolving educational, workforce, and societal needs
- Pose significant, encompassing, important questions to challenge students with relevant learning that prepares them to address problems impacting their lives, their work, and the world around them
- Engage students in inventing ways to solve problems
- Prepare students to be self-directed, intentional, lifelong learners
- Assist students in acquiring leadership skills and the ability to manage complex projects

Because our learning environments are designed in this way, our students are able to clarify their career goals and demonstrate the knowledge and skills needed for success in the workplace.

## References:

Bain, K. (2004). What the best college teachers do. Cambridge, Mass: Harvard University Press.

Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses. San Francisco, Calif: Jossey-Bass.

## Assessing Student Learning

When their time at GCC is complete, we want to ensure that students leave with the content knowledge, marketable skills, and life skills necessary for success. Our process of student learning assessment addresses that question. Student assessment at GCC focuses on verifying and improving student learning through a comprehensive program of academic benchmarking, data collection, analysis, and implementation. GCC uses multiple sources of evidence to discover what and how students learn and how they might use their learning experiences upon exiting the institution.

GCC is committed to hearing the voices of our students. We want to ensure that these voices represent the learning and engagement of our students. By contributing to assessments, students benefit from improved instruction and programs. On occasion, students may be asked to complete nationally recognized assessment instruments and should take their participation in these activities seriously. There is no cost to students to participate in any assessment activity. Information obtained from these instruments will be used solely in determining the effectiveness of programs and student learning in ways that do not reflect personally on individual students.

Assessment of student learning occurs in GCC's curricular and cocurricular programs on an annual to triennial cycle. Curricular assessment includes data gathering and student learning improvement interventions at the course, program, and institutional levels, while co-curricular assessment targets student support programs and student organizations.

Students can find competencies and outcomes for all Academic and Career \& Technical Education courses, certificates, and degree programs here: https://curriculum.maricopa.edu/

Our GCC Institutional Learning Outcomes state that, by the end of their college experience, students at GCC will have demonstrated:

- oral, written, and visual communication
- critical and creative thinking
- quantitative reasoning and analysis
- personal and community well-being
- diversity awareness and appreciation
- information literacy
- career goals and workplace skills

For more information about our assessment program, including our public reports, visit
https://www.gccaz.edu/about/assessment.

## Strategic Planning

At GCC, our strategic plan defines and communicates our most important efforts to realize our college's vision to foster student success by providing innovative, quality learning experiences for all members of the community. Springing from our fundamental institutional values, the strategic plan also sets forth the metrics by which we will hold ourselves accountable as we work to make this vision a reality.

## Focus 2024

Focus 2024 is GCC's college-wide strategic plan, accessible via the link included in the Downloads section on this page.
Developed through an inclusive process, the plan leverages the Four Disciplines of Execution (4DX) to help to ensure forward momentum by asking individuals and departments to take an
active role in our GCC Super Goal: Increase completion with equity from $23 \%$ to $33 \%$ by Fall 2024. The plan also includes three strategic goals to advance specific areas across the college: Enrollment, Operational Effectiveness, and GCC's Reputation and Competitive Edge. Together, our Super Goal and three Strategic Goals will result in a stronger and more integrated engagement in our strategic efforts to better serve our community.

## Background

In fall 2020, the Strategic Plan Design Team (SPDT) was formed to draft the institution-wide 2021-2024 strategic plan. The SPDT was tasked with the mandate to engage in a process that was thorough, inclusive, transparent, data-informed, and futurefocused. The SPDT engaged with constituencies across the college, including direct interviews and listening sessions with more than 150 students, faculty, staff, administrators, and community members who provided feedback on key areas and big ideas requiring college-wide attention for future success. Out of this process came a strategic plan that was shorter, more streamlined and more focused than prior plans, and which included quantified metrics for success. The plan also provides vertical and horizontal alignment of college strategy across all departments and with the Maricopa District.

## Strategy Execution and 4DX

Many institutions create a strategic plan and then struggle with follow-through to actually execute the strategy they have developed. Recognizing the need for a structured, diligent and integrated approach to strategy execution, GCC has devoted significant institutional energy and resources to make sure its strategy execution is achieving the goals set forth in the college's strategic plan. The tool we are using to support this is Franklin Covey's Four Disciplines of Execution ${ }^{\circledR}$ (4DX). The 4DX program and process is enabling GCC to focus on our strategic goals and to engage everyone in a standardized framework for weekly accountability.

In Fall 2021, GCC launched a college-wide effort to begin the organizational change to implement 4DX, train hundreds of employees in the new methodology, and identify the college's goals-of-focus. Through an inclusive process, GCC identified one primary Wildly Important Goal (WIG) focusing on increasing Student Completion, and three sub-WIGs focusing on increasing Enrollment, Fall-to-Fall Student Retention and Successful Course Completion. Each of these WIGs is stated with clear, numerical metrics for success, with Equity as an explicit component of every metric.

In January 2022, GCC began its first 4DX Run Cycle with 75 teams and over 500 employees, representing nearly every department in the college. Each team developed a goal aligned with one of the college's WIGs and established Lead Measures to guide their weekly work and commitments. Following a successful completion of the first Run Cycle in May 2022, GCC
began its second Run Cycle in Fall 2022 with 80 teams. At GCC, 4 DX is proving to be a useful tool to enable the college to focus on goals most critical to its institutional Vision to foster student success by providing innovative, quality learning experiences for all members of the community.

## Get Involved with Strategic Planning

Executing the strategy outlined in Focus 2024 requires an inclusive and engaging approach to ensure all constituents have the opportunity to share their ideas as we engage in this concerted effort to implement a plan for our future. If you would like to schedule a meeting or listening session, please contact us at strategicplanning@gccaz.edu to coordinate a time that works for your group to ensure your voices and ideas are heard and integrated into our future plan.

## Compliance Disclosures

## Office of Compliance

As part of Institutional Effectiveness, the Office of Compliance provides tools and support to college departments to help fulfill the mission of the institution in an ethical way that adheres to Maricopa Community College policy and federal, state, and local regulations.

The Office of Compliance provides direction, education, oversight, ongoing risk monitoring, guidance, and resources to the College to optimize ethical and compliant behavior, provide assurance, and continuously improve our compliance and ethics program.

Glendale Community College adheres to all Federal, State, and Maricopa District policies, regulations, disclosure reporting requirements, and laws.

Most policies can be found in at one of these links:

- GCC Student Handbook
- Maricopa Technology Resource Standards
- Maricopa Community College District Website


## Student Right to Know:

- Campus Security Report: The Glendale Community College Public Safety department publishes annual reports that disclose relevant information about campus security policies and crime statistics.
- Cost of Attendance: The Net Price Calculator is a tool designed to help students estimate the annual cost to attend a Maricopa Community Colleges. This broad estimate is based on the cost of attendance and the financial aid that was provided to full-time, first-time degree/certificate-seeking undergraduate students in 2019-20. The actual net price can vary significantly based on student eligibility and does not represent an
actual award. The submission of the FAFSA is the only way to obtain a true and accurate determination of eligibility.
- Diversity of Enrollment: In Fall 2020 enrollment of all full-time undergraduate students in credit programs was 4,133 . Of these $56 \%$ were female and $44 \%$ were male. 1\% were American Indian/Alaska Native, 5\% were Asian/Pacific Islander, $5 \%$ were Black, $41 \%$ were Hispanic, $39 \%$ were White, $5 \%$ were Two or More Races, and $2 \%$ were Non-Resident Alien.
- Diversity of Pell Recipients: Federal Pell Grant recipients comprised $43 \%$ of the full-time enrolled students in Fall 2020. Of these, $61 \%$ were female and $39 \%$ were male. $69 \%$ of the Pell recipients identified themselves as members of a racial or ethnic minority.
- Retention Rates: $56 \%$ of the first-time, full-time undergraduate students who enrolled in Fall 2019 returned in Fall 2020. The part-time student retention rate was $35 \%$.
- Graduation and Transfer Rates: The 3-year graduation rate for full-time students entering in Fall 2017 was $14 \%$. The 3 -year transfer-out rate was $26 \%$.
- Out of State Enrollment in Online Programs: Glendale Community College is currently not authorized to deliver online classes to students who reside in a state other than Arizona per 34 CFR Part 600.9 - Institutional Eligibility under the Higher Education Act of 1965.
- FERPA and GDPR Rights: Glendale Community College complies with the Family Educational Rights and Privacy Act (FERPA) and the General Data Protection Regulation (GDPR), which affords students certain rights with respect to their education records.
- Voter Registration: Voter Registration forms are available in the Enrollment Center or may be requested via the website.


## Equal Employment Opportunity Policy Statement

It is the policy of Maricopa to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination, against any applicant or employee because of race, color, religion, gender, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information. Additionally, it is the policy of Maricopa to provide an environment for each Maricopa job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sex, sexual orientation, gender identity, or national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information.

## Diversity

The GCC student body is as diverse as its surrounding community. The college is committed to celebrating this diversity and ensuring that students coming into college receive equitable opportunities for success. Two organizations on campus committed to the goal of diversity and equity across the campus are the Diversity Committee and the Diversity, Equity, and Inclusion (DEI) Council.

## Classes to Help Improve Your Understanding of Diversity

There are a lot of different classes offered on the GCC campus that will help you better understand different diverse cultures and groups. Use Find A Class to learn more about them. To make it easier to find these classes, consider limiting to the General Education Designations:

- Cultural Diversity in the US [C]
- Global Awareness [G]
- Historical Awareness [H]
- Social-Behavioral Science [SB]


## Achieving the Dream

At Glendale Community College we recognize the value in ongoing assessment of our efforts and outcomes as relates to diversity, equity and inclusion. In collaboration with Achieving the Dream (ATD), GCC participated in a college-wide assessment, which resulted in the GCC Equity Opportunity Assessment Report. The ATD report provides recommendations based on GCC's existing equity efforts both inside and outside of the classroom, focusing on engaging leadership around the conditions necessary for an impactful campus climate and equity-focused strategic actions, examining the core conditions necessary for addressing equity in teaching and learning and student supports, and identifying the foundation for building momentum for sustainable efforts in diverse, equitable, and inclusive practices. Within these areas, a number of core recommendations to improve equity at GCC were provided:

1. Engage faculty as change agents in building an equityfocused culture
2. Intentionally design the student experience using a student-centered design approach and systems perspective
3. Develop an inclusive feedback loop with faculty, staff, and the community
4. Develop a transparent plan for democratizing student success data
5. Develop a comprehensive plan for recruiting and retaining diverse faculty, especially LatinX
6. Develop an equity statement with the support of a cross-functional team

While equity change work is not limited to one area or department, the impacts of inequities directly affect how GCC
students, faculty, staff, community members, and administrators experience the college and feel supported. As such, we all, in our various roles, are essential to closing equity gaps. We support our faculty commitment to culturally-relevant teaching and eliminating unconscious bias, as we support and leverage the strength of a diverse student population.

GCC chose to work with ATD because we continually strive to be agile and dynamic in addressing the diversity of student needs. On our campus will find no shortage of faculty, staff, and leaders who care deeply and passionately champion the removal of challenges in support of student success and a sense of belonging. GCC offers a plethora of services, programs, interventions, and supports to address identified equity needs within the general student population.

## Sustainability on Campus

Glendale Community College (GCC) is a strong proponent of sustainability with many initiatives in place which are actively supported by students, faculty and staff. In line with GCC's commitment to sustainability, we have pledged to be carbon neutral by 2025 through the signing of the American College and University Presidents' Climate Commitment in 2011.

The Sustainability Board, chaired by Vice President of Administrative Services, Augustine Erpelding, works with the Green Efforts Committee, Environmental Club, and academic members of the Sustainability degree \& certificate programs to incorporate sustainable ideas and programs in the administration of the college.

The list of green efforts at the main and North campuses have continued to flourish through the years, for example:

- Energy Conservation: temperature set points, LED light bulbs, hybrid vehicles, electric vehicle charging stations, sensors to reduce energy and resource usage, LEED-designed buildings, locally-sourced building materials, meatless cafeteria menu, telecommuting policy and more.
- Water Conservation: landscaping without the use of irrigation, environmentally-friendly chemicals \& cleaners.
- Plastic and Paper Use Reduction: water bottle fill stations, reusable cups, increase the use of aluminum cans vs plastic, paper-reduction pledge.
- Recycling and Waste Reduction: e-cycling events, zero waste program, co-mingled recycling bins.
- Bee Campus USA Affiliate: GCC is an affiliate of the Bee Campus USA program, designed to marshal the strengths of educational campuses for the benefit of pollinators. GCC was the first college in Arizona to be named a Bee Campus and joins with other campuses
across the country who are united in improving their landscapes for pollinators.
- Maricopa Native Seed Library at GCC Main Library: The Maricopa Native Seed Library provides free, native seed to the community, as well as education and information to make it easy to incorporate these plants into your yards, patios and balconies. Anyone can include some native plants into their residences, whether you have a lot of space or a small apartment.


## Near-Z Cost Learning Materials

GCC offers Near-Z (near-to-zero) cost learning materials programs and degrees. This means that all required courses within a program or degree pathway have textbook costs between $\$ 0-\$ 40$ per class*.

## Open Educational Resources (OER)

Open Educational Resources (OER) are learning, teaching, and research materials in any format and medium that reside in the public domain or have an open license copyright that permits no-cost access, re-use, re-purpose, retention, redistribution, and adaptation by others.

## Low Textbook Cost (LTC)

The total cost of the required materials for this course is $\$ 40$ or less. Some materials may be provided by the college and only be available while enrolled in the course.

## Zero Textbook Cost (ZTC)

Zero-Textbook-Cost Class: The total cost of required instructional materials for this "Z Class" is \$0.

[^0]
## Academic Calendar

The dates listed below which are directly related to instruction refer to the traditional academic year model. Some courses may be offered over time periods for which these dates are not applicable. Most dates are based on the Maricopa County Community College District Academic Calendar and are subject to change without notice.

## Summer Semester 2023

May 15...........Final Grades Due for Spring 2023 Semester
May 22 ............Tuition Due for Summer 2023 Semester
May 29 ............ Memorial Day (Colleges Closed)
May 30...........Summer Semester Begins
Jun 19.............Juneteenth National Independence Day (Colleges Closed)

Jul 3-8 ............Summer Break for Clock Hour Programs Only
Jul 4. $\qquad$ Independence Day (Colleges Closed)

Aug 3. $\qquad$ Summer Semester Ends

Aug 7 $\qquad$ Final Grades Due for Summer 2023 Semester

## Fall Semester 2023

Aug 9. $\qquad$ Tuition Due for Fall 2023 Semester
Aug 11............First Day of Faculty Accountability
Aug 19............Classes Begin
Sep 4 ............... Labor Day (Colleges Closed)
Sep 18 ............ Find a Class Opens for Spring 2024
Oct 2 $\qquad$ Spring 2024 Priority Registration for Currently Enrolled Students

Oct 7 $\qquad$ .Last Day for Withdrawal without Instructor's Signature ${ }^{+}$

Oct 9 $\qquad$ Student Withdrawal with Instructor's Signature Begins ${ }^{++}$
Oct 9 $\qquad$ Spring 2024 Open Registration Begins

Oct 9 $\qquad$ Application for December 2023 Graduation*

Nov 10............ Observance of Veterans Day (Colleges Closed)
Nov 23-26 ...... Thanksgiving Day Holiday (Colleges Closed)
Dec 10 $\qquad$ Last Day of Regular Classes
Dec 11-15.......Final Exams Week**
Dec 15 . $\qquad$ Fall Semester Ends (Last day of Faculty Accountability)

Dec 16 $\qquad$ Mid-Year Recess Begins for Students
Dec 18 $\qquad$ Final Grades Due for Fall 2023 Semester

Dec 23-Jan 1...Mid-Year Recess (Colleges Closed)

## Spring Semester 2024

Jan 2 .............. Employees Return
Jan $\qquad$ Tuition Due for Spring 2024 Semester
Jan 8 $\qquad$ First day of Faculty Accountability
Jan 8 $\qquad$ Clock Hour Student Classes Begin
Jan 13 $\qquad$ Classes Begin
Jan 15 ............ Martin Luther King, Jr. Day (Colleges Closed)
Feb 19............ Presidents' Day (Colleges Closed)
Feb 20............ Find a Class Opens for Summer/Fall 2024
Mar 2............ Last Day for Withdrawal without Instructor's Signature ${ }^{+}$

Mar 4............. Student Withdrawal with Instructor's Signature Begins ${ }^{++}$

Mar 4............. Summer/Fall 2024 Priority Registration for Currently Enrolled Students

Mar 4 $\qquad$ Application for May 2024 Graduation*
Mar 11-17...... Spring Break (Colleges Closed)
Mar 18........... Summer/Fall 2024 Open Registration Begins
May 5 ............ Last Day of Regular Classes
May 6-10 ....... Final Exams Week**
May 10 .......... Commencement
May 10 .......... Spring Semester Ends (Last day of Faculty Accountability)
May 13 $\qquad$ Final Grades Due for Spring 2024 Semester

## Summer Semester 2024

May 20 .......... Tuition Due for Summer 2024 Semester
May 27 .......... Memorial Day (Colleges Closed)
May 28 .......... Summer Semester Begins
Jun 19 ............ Juneteenth National Independence Day (Colleges Closed)
Jul 1-6 $\qquad$ Summer Break for Clock Hour Programs Only
Jul 4 . Independence Day (Colleges Closed)
Aug 1 Summer Semester Ends
Aug 5 Final Grades Due for Summer 2024 Semester

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
${ }^{++}$After the 7 th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages).


## Academic Policies

## Arizona General Education Curriculum

## Description

The Maricopa County Community College District (MCCCD) Arizona General Education Curriculum (AGEC) is a general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit. In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed.

As described below, the AGECs are a component of most MCCCD associate degrees and comparable degrees at other Arizona public community colleges. The AGEC-A defines the general education requirements in the Associate in Arts (AA), Associate in Arts, Elementary Education (AAEE), and the Associate in Arts, Fine Arts (AAFA) degrees. The AGEC-B defines the general education requirements in the Associate in Business-General Requirements (ABUS-GR) and Associate in Business-Special Requirements (ABUS-SR) degrees. The AGEC-S defines the general education requirements in the Associate in Science (AS) degree.

As described in more detail below, all AGECs require designated courses in First Year Composition [FYC], Literacy and Critical Inquiry [L], Mathematical Studies [MA], Social-Behavioral Sciences [SB], Humanities, Design and Fine Arts [HU], and Natural Science [SQ/SG]. Students must satisfy two Awareness areas as well: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. In addition, the AGEC-A and AGEC-B require a Computer/Statistics/Quantitative Applications course [CS] that is not required for students pursuing the AGEC-S.

## Purpose of the AGECs

AGECs were designed to articulate with different academic majors at the state universities, and their particular requirements vary accordingly. In some major-specific pathways, students are allowed to choose from a broad list of courses to satisfy the AGEC requirements, and for others the courses are more restricted or even specified. Additional information on academic majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

1. The AGEC-A is designed to satisfy General Education requirements in many liberal arts majors as well as other majors that articulate with an Associate in Arts degree (e.g., social sciences, fine arts, humanities, elementary education). AGEC-A requires a minimum
of college mathematics or college algebra to satisfy the Mathematics [MA] requirement.
2. The AGEC-B is designed to satisfy requirements in business majors that articulate with the Associate in Business (ABUS-GR, ABUS-SR). AGEC-B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.
3. The AGEC-S is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements such as many in the sciences, technology, engineering and mathematics. AGEC-S requires a minimum of the first course in a calculus sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight (8) credits of either university chemistry, university physics, general biology for majors, or physical and historical geology to satisfy the Natural Sciences [SO/SG] requirement. In addition, students must select six (6)- to ten (10) additional credits of Subject Options composed of math and/or science appropriate to their major.

## Academic Policies that Govern the AGEC A, B, S:

- Requires completion of at least 35 credit hours* (for AGEC-A and AGEC-B) and 36 credit hours* (for AGECS) in courses numbered 100 and above that have been approved for one or more AGEC designations; a minimum of 12 of those credits must be completed at one or any combination of the MCCCD colleges. See First Year Composition [FYC] notes in the following AGEC descriptions and footer for credit minimum exceptions. *
- All MCCCD courses applied to the AGEC must be completed with a grade of $C$ or better.
- All MCCCD courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the Course Equivalency Guide for the academic year in which the course was taken. Courses approved for transfer exclusively toward the Bachelor of Applied Science are ineligible for inclusion in the AGEC.
- A single course can simultaneously count toward one or more Awareness Areas and other AGEC requirements. For example, an approved course in world geography may be used to satisfy [SB] and [G] requirements. While multiple requirements can be met with a single course, the credits for that course are only counted one time toward the required minimum total for the AGEC. Except as detailed
below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC requirement, with the exception of Awareness Areas. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. Except as detailed below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC core requirement other than Awareness Areas. For example, for AGEC-A and AGEC-B, a single course cannot be used to satisfy both [HU] and [SB], but it could be used to meet [HU] and [C], [G] and/or [H].
- Awareness Areas and MCCCD's Additional Requirements may also be shared with other AGEC Requirements. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64.


## Transfer Credit from Institutions Outside of MCCCD:

- Credits transferred from outside of MCCCD must be completed with a grade of C (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade ("P") is equivalent to a C or better.
- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on AZTransfer's Course Equivalency Guide (CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCCD direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements will be based on the source institution's AGEC designation for the semester in which the course was completed.
- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System composed of Arizona's public community colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCCD equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment in a non-traditional setting is transferable to other colleges in the MCCCD
district but is not necessarily transferable to other colleges and universities outside of the MCCCD system. No more than 20 such assessed semester credit hours may be applied toward AGEC.


## Completion and Transfer:

- Completion of the AGEC with a minimum grade point average of 2.0 for Arizona residents and 2.50 for nonresidents (on a 4.0 scale) meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree. For some majors, the statewide Common Course matrix, AZTransfer Pathway Guides and/or University Transfer Guides posted on the AZTransfer website can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.


## AGEC Requirements

Descriptions and definitions of the requirements for each of the three AGECs follow. The following website identifies the courses that apply to the different requirements within each AGEC for a given academic year:

AGEC Matrix. AGEC designations are subject to change. It is important to verify a course's AGEC value in the semester it is taken. For convenience, this information is provided for the current and upcoming semester in the Find a Class tool on maricopa.edu and on each MCCCD college's website as well as in the AGEC Matrix provided by AZTransfer.

Note that for students pursuing an associate degree with a specific emphasis (for example: Associate in Arts, Emphasis in History; Associate in Arts, Fine Arts, Emphasis in Theatre; Associate in Science, Emphasis in Physics), the AGEC course requirements are usually more prescriptive. Students pursuing a major-specific pathway should consult the Program (Degree) Search at curriculum.maricopa.edu (click on Current Programs) for specific degree and AGEC requirements. Consultation with an academic advisor about course selection is always recommended.

## Arizona General Education Curriculum-Arts

Credits: 35 (min.) *

The Arizona General Education Curriculum - Arts (AGEC-A) requires a minimum of 35 credits ( 32 if [FYC] is met by single
transfer course) *; courses applied to meet AGEC-A requirements vary by emphasis.

Refer to the program (Degree) Search at curriculum.maricopa.edu (click on Current Programs) for specific course requirements. The Required Courses and/or Restricted Electives for some areas of Emphasis may also have AGEC designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.

## AGEC-A Requirement

 CreditsA. First-Year Composition [FYC] .6*
ENG101 OR ENG107 (3) *
AND END102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L]
C. Mathematical Applications [MA] 3-6
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus (MAT187) or higher [MA]-approved general education course.
D. Computer/Statistics/Quantitative Applications [CS]........ 3
E. Humanities, Arts and Design [HU] $\qquad$ Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB]. $\qquad$ .. 6
Students are encouraged to choose course work from more than one discipline.
G. Natural Sciences [SQ/SG] $\qquad$ .9
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credits. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement.
H. Awareness Areas

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States $[C](0-3)$
2. Global Awareness [G] OR Historical Awareness [H] (0-3)
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

## Arizona General Education CurriculumBusiness <br> Credits: 35 (min.) *

The Arizona General Education Curriculum-Business (AGEC-B) requires a minimum of 35 credits ( 32 if FYC is met by single transfer course) *.

The Required Courses and/or Restricted Electives for corresponding Associate's degree may also have AGEC designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree.

## AGEC-B Requirement

## Credits

A. First-Year Composition [FYC]. 6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L]........................................ 3
C. Mathematical Applications [MA] ................................. 3-5

MAT212 Brief Calculus (3) OR
MAT213 Brief Calculus (4) OR
Higher [MA] designated course (3-5)
D. Computer/Statistics/Quantitative Applications [CS] ....... 3

CIS105 Survey of Computer Information Systems (3)
E. Humanities, Arts and Design [HU]................................... 6

Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB] .6
ECN211 Macroeconomics AND
ECN212 Microeconomics
G. Natural Sciences [SQ/SG]

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four (4) credits. Credits for lecture and lab components may be combined or each may carry separate credit. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement.
H. Awareness Areas 0-6
The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States $[C](0-3)$
2. Global Awareness [G] OR Historical Awareness [H] (0-3)
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

## Arizona General Education Curriculum-Science Credits: 36 (min.) *

The Arizona General Education Curriculum—Science (AGEC-S) requires a minimum of 36 credits ( 33 if FYC is met by single transfer course) *; courses applied to meet AGEC-S requirements vary by emphasis.

Refer to the program (Degree) Search at curriculum.maricopa.edu (click on Current Programs) for specific course requirements. The Required Courses and/or Restricted Electives for some areas of Emphasis may also have AGEC designations including one or more of the Awareness Areas ([C], [G] and/or [H]). A single course may meet more than one requirement but its credits are only counted once toward the total for the degree.

Some courses have been approved for more than one AGEC designation (see AGEC Matrix). For the AGEC-S only, a single course with an [L] designation may be used to satisfy a second AGEC requirement (as well as any approved Awareness Areas). Only courses with [L] designations may be shared in this way.

## AGEC-S Requirement

A. First-Year Composition [FYC] $\qquad$ .6*
ENG101 OR ENG107 (3) *
AND END102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L] -3**
Students pursuing AGEC-S and/or AS degree are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use CRE101 or COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. The [L] course selected may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). Thus, a single [L] course could potentially meet another AGEC requirement as well as one or more Awareness areas.
C. Mathematical Applications [MA] 4-5
Requires the first semester of calculus courses designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a prerequisite.
D. Humanities, Arts and Design [HU] $\qquad$ .. 6
A single course approved for both [L] and [HU] designations may be used to satisfy both requirements. This policy is unique to AGEC-S and to [L] courses. A course approved for both [HU] and [SB] can be counted for one or the other designation, not both. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.
E. Social-Behavioral Sciences [SB]

A single course approved for both [L] and [SB] designations may be used to satisfy both requirements. This policy is unique to AGEC-S and to [L] courses. A course approved for both [SB] and [HU] can be counted for one or the other designation, not both. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.
F. Natural Sciences [SQ/SG] 8-10
Students must complete eight (8) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer major or associate degree with corresponding emphasis. for guidance.
[(CHM150 or CHM151) \& CHM151LL] OR
CHM150AA or CHM151AA General Chemistry I
AND
[CHM152 \& CHM152LL] or CHM152AA General Chemistry
II
OR
PHY115 or PHY121 University Physics I
AND
PHY116 or PHY131 University Physics II
OR
BIO181 or BIO181XT General Biology (Majors) I
AND
BIO182 or BIO182XT General Biology (Majors) II OR
GLG101IN Introduction to Geology I - Physical OR
GLG101 Introduction to Geology I - Physical Lecture AND
GLG103 Introduction to Geology I - Physical Lab
AND
GLG102IN Introduction to Geology II - Historical OR
GLG102 Introduction to Geology II - Historical Lecture AND
GLG104 Introduction to Geology II - Historical Lab
G. Subject Options - Math/Science 6-10
Students should refer to transfer resources, including academic advisement, transfer guides and/or requirements for associate degree with corresponding area of emphasis, to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major.

This Math/Science requirement can be met by selecting Mathematics course(s) [MAT] that require Calculus I as a prerequisite and/or Computer Science course(s) [CSC] and/or additional Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)
H. Awareness Areas .0-6
The same courses may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements (see AGEC Matrix for current course values).

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**O only if shared with HU or SB

## Description of AGEC Designations

## First-Year Composition (FYC)

First-Year Composition courses emphasize skills necessary for college-level expository writing, including correct grammar and punctuation, logical organization of ideas, and identification of supporting documentation.

## Literacy and Critical Inquiry [L]

In the [L] course, students typically at the sophomore level, express their findings in writing or speech. This course includes a series of graded written or spoken formal assignments.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering, interpreting, and evaluating of evidence. Building on the proficiency attained in traditional First-Year Composition courses, the Literacy and Critical Inquiry [L] requirement sustains and extends students' ability to thoughtfully use and critically analyze written and/or spoken language.

## Mathematical Applications [MA]

The Mathematical Studies requirement is intended to ensure that students have requisite skill in mathematics appropriate for their discipline and can apply mathematical analysis in their chosen fields.

## Computer/Statistics/Quantitative Applications [CS]

AGEC-A and AGEC-B require a course that emphasizes the use of statistics, other mathematical methods, computer programming languages and/or software in the interpretation of data and in describing and analyzing quantitative relationships.

## Humanities, Arts and Design [HU]

The study of the humanities and the disciplines of art and design deepen awareness of the complexities of the human condition and its diverse histories and cultures. Courses in the humanities are devoted to the production of human thought and imagination, particularly in philosophical, historical, religious and artistic traditions. Courses with an emphasis in fine arts and design are devoted to the study of aesthetic experiences and the processes of artistic creation. They may
also feature a design emphasis in which material culture is studied as a product of human thought and imagination.

## Social-Behavioral Sciences [SB]

Social-Behavioral Sciences provide scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. This area of emphasis may include study of such disciplines as anthropology, economics, history, political science, psychology, or sociology. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

## Natural Sciences [SQ/SG]

In addition to an understanding of basic scientific principles and concepts, courses in the Natural Sciences are designed to help students appreciate, from firsthand laboratory and/or field research experience, the nature of science as a process that embraces curiosity, inquiry, testing, and communication to better understand natural phenomena. At least one of the two natural science courses must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

## Awareness Areas

Students must satisfy two Awareness areas: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. Courses can satisfy other AGEC requirements and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas provided courses selected are approved for those designations (see AGEC Matrix).

Cultural Diversity in the United States [C]: The contemporary "culture" of the United States involves the complex interplay of many different cultures that exist side by side in various states of harmony and conflict. U.S. history involves the experiences of European immigrants and their descendants, American Indians, Hispanic Americans, African Americans and Asian Americans--all of whom played significant roles in the development of contemporary culture and together shape the future of the United States. At the same time, the recognition that gender, class, and religious differences cut across all distinctions of race and ethnicity offers an even richer variety of perspectives from which to view one. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and can help to foster greater mutual understanding and respect.

The objective of the Cultural Diversity area requirement is to promote awareness of and appreciation for cultural diversity within the contemporary United States. This is accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of
successful or unsuccessful interactions between and among cultural groups.

Global Awareness [G]: Human organizations and relationships have evolved from being family and village centered to the modern global interdependence that is apparent in many disciplines--for example, contemporary art, business, engineering, music, and the natural and social sciences. Many serious local and national problems are world issues that require solutions which exhibit mutuality and reciprocity. These problems occur in a wide variety of activities, such as food supply, ecology, health care delivery, language planning, information exchange, economic and social developments, law, technology transfer, and even philosophy and the arts. The Global Awareness Area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. The Global Awareness Area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human goals and welfare.

Courses that satisfy the global awareness option in the requirements are of one or more of the following types:

1. Area studies that are concerned with an examination of culture-specific elements of a region of the world.
2. The study of a non-English language.
3. Studies of international relationships, particularly those in which cultural change is facilitated by such factors as social and economic development, education, and the transfer of technology.
4. Studies of cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology.

Historical Awareness [H]: The Historical Awareness Area option in the requirements aims to develop a knowledge of the past that can be useful in shaping the present and future. Because historical forces and traditions have created modern life and lie just beneath its surface, historical awareness is an aid in the analysis of present-day problems. Also, because the historical past is a source of social and national identity, historical study can produce intercultural understanding by tracing cultural differences to their origins. Even the remote past may have instructive analogies for the present.

The Historical Awareness Area consists of courses that are historical in method and content. In this area, the term "history" designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence.

The requirement presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. History is present in the languages, art, music, literature, philosophy, religion, natural
sciences, as well as in the social science traditionally called history.

## Academic Certificates

## Purpose of the Academic Certificate

The Maricopa County Community College District Academic Certificate (AC) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in a specific area of emphasis in an academic discipline. While this program of study can result in proficiency in the specified skills and competencies, as well as mastery of a body of knowledge, it is not designed to prepare someone for employment in a specific occupation. The coursework for an Academic Certificate may be from a variety of disciplines or it can be discipline specific. There is no required general studies component to an Academic Certificate; however, the program may include some courses that have specific general education (AGEC) designations such as Humanities, Arts and Design [HU], Social-Behavioral Sciences [SB], Literacy and Critical Inquiry [L], or Cultural Awareness [C]. (See AGEC Matrix for current course values.)

## Academic Policies that Govern the Academic Certificate:

- Although the program of study for an Academic Certificate (AC) does not have a mandated minimum number of credit hours, most ACs require approximately 12-39 credit hours in courses numbered 100 and above; students must have earned a minimum of 6 credits toward the certificate at the institution awarding the certificate. For certificates with less than 6 credit hours, all credits must be completed at the college granting the award.
- Students must earn a grade of $C$ or better in each course in the program.
- Follows the graduation policies listed in the college's general catalog for the appropriate catalog year.
- Any course cross-referenced under another prefix(es) (for example ENH291/EDU291-Children's Literature) covers identical content and its credits can only be counted once toward certificate requirements.
- Although ACs may include a subset of coursework required in particular transfer degrees, the intent of an $A C$ is not to align with any specific university major. There is no presumption of block transfer to another college or university.
- May have admission criteria established by the college if and when appropriate.
- Generally offered at a limited number of colleges. For a listing of all ACs available in the district and their affiliated college(s) see the CCTA web site.


## Associate in Applied Science Degree and General Education Requirements

## Description

The Associate in Applied Science (AAS) degree requires at least 60 credits in its program of study. The exact number of credits for a specific degree is identified as part of the presentation of its requirements at curriculum.maricopa.edu click on Current Programs or search in the offering college(s') catalog.

## Purpose of the Degree

The Maricopa County Community College District Associate in Applied Science (AAS) degree is recommended for students who wish to gain a depth of technical expertise in a particular workforce-related area of study. The AAS degree options vary at the different MCCCD colleges and can be searched alphabetically (click on Current Programs) or by field of interest. Requirements for each degree can be found on the linked web pages and in the corresponding college(s)'s catalog.

## Academic Policies that Govern the AAS Degree:

- Degree requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;
- All courses must be completed with a grade of C or higher; any additional requirements such as grades of B or higher or minimum grade point average requirements are listed on individual degrees and certificates
- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9). First Year Experience is required (FYE 101 or FYE 103).
- Some courses also have equivalent combinations of modular variants; all options are listed and completion of either the course or its modular equivalents will satisfy the AAS requirements.
- Requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog.
- Any course that is cross referenced with that of another discipline/subject (for example EDU/ENH291, Children's Literature) covers identical contents. A course under either subject (for example, EDU291 or ENH291) will count only once toward degree requirements.

| AAS GENERAL EDUCATION CORE (12-15 credits) * |  |
| :---: | :---: |
| Demonstrate college-level skills in the following areas: |  |
| First-Year Composition (6 credits) * |  |
| ENG | English [101/107] \& [102/108/111] |
| Oral Communication (3 credits) |  |
|  | $\begin{aligned} & \text { Communication } \\ & \text { 100/100AA\&100AB\&100AC/110/110AA\&110AB\&110 } \\ & \text { AC/225/230 } \end{aligned}$ |
| Critical Reading (3 credits) |  |
| CRE | Critical Reading 101 or Equivalent as indicated by assessment |
| Mathematics (3 credits) |  |
| MAT | Mathematics |
|  | 112/114/115/120/121/122/126/140/141/142/145/14 |
|  | 6/150/150\&182/151/151\&182/152/152\&182/155/15 |
|  | 5\&182/156/156\&182/172/187/206/212/213/217/21 |
|  | 8/220/221/225/227/230/231/240/241/256/257/276/ |
|  | 277/equivalent course/satisfactory completion of a |
| AAS GENERAL EDUCATION DISTRIBUTION AREAS (9-10 credits) |  |
|  |  |
| Humanities/Arts and Design (2-3 credits) |  |
| AHU | Arabic Humanities 245 |
| AIS | American Indian Studies 213 |
| AJS | Administration of Justice Studies 123 |
| ARH | Art Humanities Any ARH Course(s) |
| ART | Art 131 |
| ASB | Anthropology 211/214/220/222/223/253 |
| CCS | Chicana and Chicano Studies 101 |
| COM | Communication 241 |
| CON | Construction 101 (formerly CNS 101) |
| DAH | Dance Humanities 100/201/250/255 |
| EDU | Education 230/291/292/294 |
| ENG | English 200/213/218 |
| ENH | English Humanities Any ENH Course(s) |
| FMT | Film/Media/and Theatre 107 |
| FRE | French 265 |
| GST | Game Studies 202 |
| HCR | Health Care Related 210 |
| HIS | History |
|  | 101/102/103/108/110/111/113/114/203/212/251/252 |
| HON | Honors 190 |
| HUM | Humanities Any HUM course(s) (except 120/225) |
| INT | Interior Design 115/120 |
| LAT | Latin 201/202 |
| MHL | Music: History/Literature |
|  | 140/143/145/146/153/155/194/204/241/242/295 |
| PHI | Philosophy Any PHI Course(s) |
| REL | Religious Studies Any REL Course(s) |

## redits) *

Oral Communication (3 credits)

100/100AA\&100AB\&100AC/110/110AA\&110AB\&110 AC/225/230

Critical Reading (3 credits)
CRE Critical Reading 101 or Equivalent as indicated by assessment

```
Mathematics (3 credits)
MAT Mathematics
    112/114/115/120/121/122/126/140/141/142/145/14
    6/150/150&182/151/151&182/152/152&182/155/15
    5&182/156/156&182/172/187/206/212/213/217/21
    *)
    *77/equivalent course/satisfactory completion of a
    higher-level mathematics course
```

AAS GENERAL EDUCATION DISTRIBUTION AREAS
(9-10 credits)
Humanities/Arts and Design (2-3 credits)
AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s)
ART Art 131
ASB Anthropology 211/214/220/222/223/253
CCS Chicana and Chicano Studies 101
CoM Communication 241
Construction 101 (formerly CNS 101)
Education 230/291/292/294
English 200/213/218
English Humanities Any ENH Course(s)
Film/Media/and Theatre 107
French 265
Game Studies 202
History
101/102/103/108/110/111/113/114/203/212/251/252
HUM Humanities Any HUM course(s) (except 120/225)
NT Interior Design 115/120
LAT Latin 201/202
MHL Music: History/Literature
140/143/145/146/153/155/194/204/241/242/295
Religious Studies Any REL Course(s)

| SLC | Studies in Language \& Culture 201/202 |
| :---: | :---: |
| SPA | Spanish 241/242/265/266 |
| SPH | Spanish Humanities 241/245 |
| SSH | Sustainability/Social Sciences and Humanities 111 |
| STO | Storytelling 292/294 |
| SWU | Social Work 183 |
| TEC | Textiles and Clothing 105/125 |
| THE | Theatre 111/220 |
| THF | Theatre and Film 205/206/210 |
| THP | Theatre Performance/Production 217/241 |
| WST | Women's Studies 209/284/285/290 |
| Social-Behavioral Sciences (3 credits) |  |
| AFR | African American Studies 202/203/204 |
| AIS | American Indian Studies 101/140/141/160 |
| AJS | Administration of Justice Studies 101/200/225/258/270 |
| ASB | Anthropology 100/102/202/211/222/223/226/230/235/252 |
| ASM | Anthropology 104/275 |
| BHS | Behavioral Health Services Technology 150/155/175/210 |
| CAP | Counseling and Applied Psychology 120 |
| CCS | Chicana and Chicano Studies 202 |
| CFS | Child/Family Studies 112/157/159/176/205/235/259 |
| COM | Communications |
|  | 100/100AA\&100AB\&100AC/110/110AA\&110AB\&110 |
|  | AC/163/230/250/263 |
| CPD | Counseling and Personal Development 180 |
| ECH | Early Childhood Education 176 |
| ECN | Economics Any ECN course(s) |
| EDU | Education 221/222 |
| EED | Early Education 200/205/222 |
| EMT | Emergency Medical Technology 258 |
| ENG | English 213 |
| FOR | Forensic Science 275 |
| FSC | Fire Science 258 |
| GCU | Cultural Geography 102/113/121/122/141/221 |
| HES | Health Science 100 |
| HIS | History Any HIS course(s) (except 111,170/251/252) |
| HON | Honors 201 |
| HUM | Humanities 235 |
| IBS | International Business 109 |
| IFS | Information Studies 201/210/213 |
| MCO | Mass Communications 120 |
| MGT | Management 229/230 |
| PAD | Public Administration 200 |
| POS | Political Science Any POS course(s) |
| PSY | Psychology |
|  | 101/123/132/156/157/215/218/225/235/240/241/24 |
|  | 3/250/260/262/266/277/280/292 |
| REC | Recreation 120 |
| SBU | Society and Business 200 |
| SLC | Studies in Language \& Culture 201 |


| SOC | Sociology Any SOC course(s) (except |
| :--- | :--- |
|  | $143 / 245 / 253 / 265$ ) |
| SSH | Sustainability/Social Sciences and Humanities 111 |
| SUS | Sustainability/Natural Sciences 110 |
| SWU | Social Work 171/182/250/258/295 |
| TEC | Textiles and Clothing 105 |
| WED | Wellness Education 110 |
| WST | Women's Studies 100/161 |
| YAQ | Yaqui Indian History and Culture 100 |

## Natural Sciences (4 credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.

AGS Agricultural Science 164/260
ASB Anthropology (Soc/Behv. Science) 231
ASM Anthropology (Science/Math) 104/265/275
AST Astronomy 101/106/111/112
BIO Biology
100/101/102/105/107/108/109/111/145/149AN/156
/156XT/160/181/181XT/182/182XT/201/201XT/202/
205/241
CHM Chemistry
107\&107LL/130\&130LL/130AA/150\&151LL/150AA/15
1\&151LL/151AA/152\&152LL/152AA/154\&154LL/230
\&230LL/230AA
CON Construction 106 (formerly CNS106)
ENV Environmental Sciences 101
FON Food and Nutrition 241\&241LL
FOR Forensic Science 105/106/275
GLG Geology Any combination of GLG course(s) meeting
the minimums described above
GPH Physical Geography
111\&112/113/211/212\&214/213\&215
PHS Physical Science 110/115/120
PHY Physics
101/101AA/111/111AA/112/115/116/121/131
PSY Psychology 275/290AB/290AC

* FYC may be met with fewer than 6 credits if student has transfer credit
from ASU, NAU or UAZ for a single course that meets FYC in full.


## Associate in Arts Degree

## Description

The Maricopa County Community College District Associate in Arts (AA) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Arts, Emphasis in Psychology). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for credit minimums. A minimum grade point average of 2.0 (4.0
scale) and grades of C or better are required in all courses to earn the degree. The AA degree is governed by the MCCCD General Academic Policies for Degrees Designed for University Transfer.

The Associate in Arts degree includes the following components:
I. Program Prerequisites (as specified by emphasis area)
II. Required Courses
III. Restricted Electives (as specified by area of emphasis)
IV. Arizona General Education Curriculum for Arts (AGECA)
V. MCCCD Additional Requirements (Oral Communication and Critical Reading)
VI. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Associate in Arts (AA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCD Associate in Arts (AA) will apply to general university graduation requirements of the majors that align with the AA degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AA with majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

## Degree Requirements

The requirements for the Associate in Arts (AA) follow. The AA degree requires at least 60 credits; however, minimum credits for the AA vary for a specific area of emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis and credit minimums; review course sequence at maricopa.edu/degreescertificates\#programs. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix.

## AA Requirements <br> Credits

I. Program Prerequisites $\qquad$ Number varies Program prerequisites for the AA degree vary by specific emphasis, and are neither required for all emphases nor for the AA degree without a specific emphasis Refer to curriculum.maricopa.edu (click on

Current Programs) to search for the corresponding area of emphasis and credit minimums.
II. Required Courses Number varies
Students must complete FYE101 (1) or FYE103 (3) and select the required courses for the specific AA degree emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums.
III. Restricted Electives $\qquad$ Number varies Restricted electives for the AA degree vary by specific emphasis and are not required for the general AA degree without a specific emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums.
IV. Arizona General Education Curriculum-Arts
(AGEC-A) up to 44
The AGEC-A requires a minimum of 35 credits ( 32 if
FYC is met by single transfer course) *. Courses applied to meet AGEC-A requirements vary by emphasis. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis and credit minimums.

Any prerequisite/required/restricted elective courses that also have one or more AGEC designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation. Notes below will show how such courses may be used to meet multiple degree requirements.
A. First-Year Composition [FYC]. 6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG107 (3) *
B. Literacy and Critical Inquiry [L].
.3
C. Mathematical Applications [MA] .................. 3-6

Requires a course in college mathematics
(MAT140, MAT141, MAT142, MAT145, MAT146)
or college algebra (MAT150, MAT151, MAT152,
MAT155, MAT156) or precalculus (MAT187) or
higher [MA]-approved general education course.
D. Computer/Statistics/Quantitative Applications [CS]. 3
E. Humanities, Arts and Design [HU] $\qquad$ . .6
Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB] $\qquad$ .6

Students are encouraged to choose course work from more than one discipline.
G. Natural Sciences [SQ/SG] $\qquad$ .8
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.
H. Awareness Areas $\qquad$ .0-6

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

May be met by [HU] and/or [SB] course depending on specific course(s) selected. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)
V. MCCCD Additional Requirements. $\qquad$ 0-6
As noted below, courses in this area may also be applied toward AGEC-A requirements.
A. Oral Communication .................................. (0-3)
COM100 [SB] Introduction to Human
Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication
B. Critical Reading

CRE101 [L] Critical Reading OR equivalent as indicated by assessment

[^1]Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCCD has established recommended courses and sequencing to align with various "Emphasis Areas" in one of nine different "Fields of Interest." See maricopa.edu/degrees-certificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of $C$ or higher may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com/tools, maricopa.edu/degrees-certificates/transfer/pathways-partners, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

## TOTAL

60-64**
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

## Associate in Arts,

## Elementary Education Degree

## Description

The Maricopa County Community College District Associate in Arts, Elementary Education (AAEE) degree requires a minimum of 60 semester credits for the program of study. A minimum grade point average of 2.0 ( 4.0 scale) and grades of $C$ or better in all courses are required to earn the degree. The AAEE degree is governed by the MCCCD General Academic Policies for Transfer Degrees. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding 8101 AAEE. A minimum grade point average of 2.0 ( 4.0 scale) and grades of C or better are required in all courses to earn the degree. The AA degree is governed by the MCCCD General Academic Policies for Degrees Designed for University Transfer.

The Associate in Arts, Elementary Education degree includes the following components:
I. Required Courses
II. Restricted Electives
III. Arizona General Education Curriculum for Arts (AGEC-A)
IV. MCCCD Additional Requirements (Oral

Communication and Critical Reading)

## Purpose of the Degree

The Associate in Arts, Elementary Education (AAEE) degree is designed for the student who plans to transfer to an Elementary Education, Early Childhood, Multicultural/ Multilingual, or Special Education program at an Arizona public higher education institution and/or who plans to become a classroom instructional aide. Generally, the degree transfers as a block without loss of credit to Arizona's public universities, and in most cases, its required courses apply to graduation requirements for these Education majors. The AAEE is also embedded within the Bachelor of Arts, Elementary Education and Special Education (BAEE/SPED) offered by the Maricopa Community Colleges.

## Degree Requirements

The requirements for the Associate in Arts in Elementary Education follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC and the AGEC Matrix report. Courses available for both Areas during a current or upcoming semester can also be found using the Find a Class tool on maricopa.edu and on each MCCCD college's website. Course sequence is available at maricopa.edu/degrees-certificates\#programs.

## AAEE Requirements

Credits
I. Required Courses 14-20
EDU221 Introduction to Education (3)
EDU222 Introduction to the Exceptional Learner (3) EDU230 Cultural Diversity in Education (3) FYE101 OR FYE103 Introduction to College, Career and Personal Success (1-3)
MAT256 Investigating Quantity: Number, Operations, and Numeration Systems (4)
MAT257 Investigating Geometry, Probability, and Statistics (0-4)
II. Restricted Electives. 8
A total of eight (8) semester credits is required to satisfy the Arizona Professional Teacher Standards: three (3) credits in an additional Education (EDU) course and five (5) credits in Content Area Electives.

Courses must transfer to all public Arizona universities as elective credit, departmental elective, or equivalent to a university course as indicated in the

Arizona Course Equivalency Guide in effect when the course is taken. Courses identified as nontransferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.

Select one (1) additional EDU course (other than EDU221, EDU222, EDU230 or EDU250)

## Recommended:

EDU110 Education in Film (3)
EDU220 Introduction to Serving English Language Learners (ELL) (3)
EDU236 Classroom Relationships (3)
EDU/HUM/STO292 The Art of Storytelling (3) 3
Choose any combination from the following list of courses and prefixes to total five (5) credits of additional coursework. Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses.

Content Area Electives: Select five (5) credits from the following:
ARH+++ Any ARH Art Humanities course(s)
ART+++ Any ART Art course(s)
BPC+++ Any BPC Business-Personal Computers course(s)
CFS/ECH176 Child Development
CFS205 Human Development
CIS+++ Any CIS Computer Information Systems
course(s)
ECN+++ Any ECN Economics course(s)
EDU+++ Any EDU Education course(s) (except
EDU221, EDU222, EDU230, and EDU250
EED215 Early Learning: Health, Safety, Nutrition and Fitness OR
CFS123 Health and Nutrition in Early Childhood
Settings AND
CFS125 Safety in Early Childhood Settings
ENG+++ Any ENG English course(s)
ENH+++ Any ENH English Humanities course(s)
GCU+++ Any GCU Cultural Geography course(s)
GPH+++ Any GPH Physical Geography course(s)
HIS+++ Any HIS History course(s)
MAT+++ Any MAT Mathematics course(s) 140 or higher (except MAT256 and MAT257)
MHL+++ Any MHL Music: History/Literature course(s)
MTC+++ Any MTC Music: Theory/Composition course(s)
POS+++ Any POS Political Science course(s)
THE+++ Any THE Theatre course(s)
THF+++ Any THF Theatre and Film course(s)
THP+++ Any THP Theatre Performance/Production course(s)

Any Foreign Language course(s)
Any Natural Science course(s)
III. Arizona General Education Curriculum-Arts
(AGEC-A). .35-44*
The AGEC-A requires a minimum of 35 credits ( 32 if FYC is met by single transfer course) *; AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation. Notes below will show how such courses may be used to meet multiple degree requirements.
A. First-Year Composition [FYC] .6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L] ............................ 3

COM225 Public Speaking
C. Mathematical Applications [MA] .3-6
Requires a course in college mathematics (MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus (MAT187) or higher approved general education course in the Mathematical Applications [MA] area for which MAT15+ is a prerequisite. (Note that MAT182, MAT206, MAT256, MAT257 do NOT meet this requirement).
D. Computer/Statistics/Quantitative Applications [CS] $\qquad$ .. 3
BPC110 Computer Usage and Applications OR CIS105 Survey of Computer Information Systems OR
EDU/EED115 Digital Literacy for Teaching and Learning in Education
(EDU/EED115 recommended)
E. Humanities, Arts and Design [HU] $\qquad$ . .6
Note that some of these courses also have Awareness Areas designations and can be used to satisfy [G] and/or [H] requirements as well as [HU]. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)

1) Select one of the following ARH, DAH, MHL or THE courses:
ARH100 Introduction to Art (3) OR
ARH101 Prehistoric through Gothic Art (3) OR
ARH102 Renaissance through
Contemporary Art (3) OR
DAH100 Introduction to Dance (3) OR DAH201 World Dance Studies (3) OR

DAH250 Dance in Popular Culture (3) OR MHL140 Survey of Music History (3) OR MHL145 American Jazz and Popular Music (3) OR

MHL146 Survey of Broadway Musicals (3) OR
MHL153 Rock Music and Culture (3) OR
THE111 Introduction to Theatre (3) OR
THE220 Modern Drama (3) 3
AND
2) Select one of the following EDU, ENH or HUM courses:
EDU/ENH291 Children's Literature (3) OR
ENH110 Introduction to Literature (3) OR
ENH241 American Literature Before 1860
(3) OR

ENH242 American Literature After 1860 (3)
OR
HUM250 Ideas and Values in the Humanities: Early Civilizations to the Renaissance (3) OR
HUM251 Ideas and Values in the Humanities: Renaissance to the Contemporary World (3) 3
(EDU/ENH291 recommended)
F. Social-Behavioral Sciences [SB]

6
Note that some of these courses also have Awareness Areas designations and can be used to satisfy [G] and/or [H] requirement as well as [SB]. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)

1) Select one of the following US

History/Government courses**
These courses satisfy the United States
Constitution requirement for state teacher certification.
GCU/POS113 United States and Arizona
Social Studies (3) OR
HIS103 United States History to 1865 (3) OR
POS110 American National Government (3) 3
AND
2) Select one of the following CFS, $\mathrm{ECH}, \mathrm{GCU}$,

ECN, HIS or PSY courses
CFS205 Human Development (3) OR
CFS/ECH176 Child Development (3) OR
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
GCU121 World Geography I: Eastern
Hemisphere (3) OR
GCU122 World Geography II: Western
Hemisphere (3) OR
HIS104 United States History 1865 to

```
Present (3) OR
PSY101 Introduction to Psychology (3) }
(CFS/ECH176 recommended)
```

G. Natural Sciences [SQ/SG] $\qquad$ .. 8
The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of four (4) credits each. At least four (4) credits must be designated as [SQ]. Eight (8) credits of [SG] will not satisfy this requirement.

1) Life Sciences: Select four (4) credits of $S Q$ or SG in Biology (BIO) AND
2) Physical Sciences or Earth/Space Sciences: Select four (4) credits of SQ or SG from one of the following prefixes: AGS, ASM, AST, CHM, GPH, GLG, PHS, or PHY

Note: Students are advised to check with the university they plan to attend as specific requirements for lab sciences may vary.

## IV. Awareness Areas

 0-31. Cultural Diversity in the United States [C] (0) Met by EDU222 and EDU230 in Required Courses.
2. Global Awareness [G] OR Historical Awareness [H] (0-3)
May be met by [HU] and/or [SB] course(s)
depending on specific courses selected. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)

## V. MCCCD Additional Requirements. 0-3 <br> These requirements may be shared with other AGEC requirements. See the AGEC Matrix on aztransfer.com for course designations.

A. Oral Communication (0) Met by COM225 that is required to satisfy AGEC-A Literacy and Critical Inquiry [L] Critical Reading (0)
B. Critical Reading $\qquad$
CRE101 [L] Critical Reading OR equivalent as indicated by assessment (0-3)
*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**State certification requirements include courses on the constitutions of the U.S. and Arizona. Taking GCU/POS113 for [SB] fulfills this requirement completely. Students who instead take HIS103 or POS110 for [SB] should consider taking POS221 as a Content Area Elective so
they have completed study of both constitutions. POS220 meets state certification requirements for both constitutions but does not meet [SB].
***64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

## Associate in Arts, Fine Arts Degree

## Description

The Maricopa County Community College District Associate in Arts, Fine Arts (AAFA) degree requires a minimum of 60 semester credits for the program of study; however, minimum total credits for the AAFA vary by specific emphasis. Students must select one of the emphasis areas: Art, Dance, Music, Musical Theatre, or Theatre. If an emphasis area is not selected, this program is not eligible for Title IV Federal Financial Aid. Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums for each emphasis. A minimum grade point average of 2.0 ( 4.0 scale) and grades of $C$ or better are required in all courses to earn the degree. The AAFA degree is governed by the MCCCD General Academic Policies for associate degrees designed for university transfer.

The Associate in Arts, Fine Arts degree includes the following components:
I. Program Prerequisites (as specified by emphasis area)
II. Required Courses (as specified by area of emphasis)
III. Restricted Electives (as specified by area of emphasis)
IV. Arizona General Education Curriculum for Arts (AGEC-A)
V. MCCCD Additional Requirements (Oral Communication and Critical Reading)
VI. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Associate in Arts, Fine Arts (AAFA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts; program admission may have an additional emphasis-specific portfolio or performance requirements.

In most cases, courses used to satisfy the MCCCD Associate in Arts, Fine Arts (AAFA) will apply to general university graduation requirements of the majors that align with AAFA degree; however, students need to pay attention to any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA degree with majors at
the Arizona public universities can be accessed via the following website: aztransfer.com/tools

## Degree Requirements

The requirements for the Associate in Arts, Fine Arts (AAFA) follow. The Associate in Arts, Fine Arts degree requires at least 60 credits; however, minimum total credits for the AAFA vary by specific emphasis (Art, Dance, Music, Musical Theatre, or Theatre). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums; review course sequence at maricopa.edu/degrees-certificates. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the Find a Class tool on maricopa.edu and on each MCCCD college's website.

## AAFA Requirements

Credits
I. Required Courses $\qquad$ Number varies
Students must complete FYE101 or FYE103 and the required (major-specific) courses listed in the Associate in Arts Fine Arts degree Required Courses area for the specific emphasis (Art, Dance, Music, Musical Theatre, or Theatre). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums for each emphasis.
II. Restricted Electives $\qquad$ Number varies Restricted electives for the Associate in Arts, Fine Arts degree vary by specific emphasis: (Art, Dance, Music, Musical Theatre, or Theatre). Refer to curriculum.maricopa.edu (click on Current Programs) to search for the corresponding area of emphasis for specific courses required and credit minimums for each emphasis.
III. Arizona General Education Curriculum-Arts (AGEC-A) up to 44
The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course) *. However, depending on courses selected, it may take as many as 44 credits to satisfy all the General Education criteria. Any required/restricted elective courses that also have one or more AGEC designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken. Some of the courses may have been approved for more than one designation. Notes below will
show how such courses may be used to meet multiple degree requirements.
A. First-Year Composition [FYC]................... 6

ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L].................. 3
C. Mathematical Applications [MA] ...........3-6

Requires a course in college mathematics
(MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or higher [MA]-approved general education course.
D. Computer/Statistics/Quantitative Applications [CS] .. 3
E. Humanities, Arts and Design [HU].............. 6
F. Social-Behavioral Sciences [SB] .. 6
Students are encouraged to choose course work from more than one discipline.
G. Natural Sciences [SQ/SG] $\qquad$ .. 8

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.
H. Awareness Areas $\qquad$ .0-6 The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

May be met by [HU] and/or [SB] course(s) depending on specific courses selected. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)
IV. MCCCD Additional Requirements. 0-6
As noted below, courses in this area may also be applied toward AGEC-A requirements.
A. Oral Communication. $\qquad$ (0-3)
Refer to emphasis area (Art, Dance, Music, Musical Theatre, or Theatre) for specific COM
course to select from the following list: COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR COM225 [L] Public Speaking OR COM230 [SB] Small Group Communication (3 credits) OR
COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
B. Critical Reading

CRE101 [L] Critical Reading OR equivalent as indicated by assessment

## V. General Electives

$\qquad$ 0-25
Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCCD has established recommended courses and sequencing to align with the Fine Arts Emphasis Areas. See maricopa.edu/degreescertificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of C or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

[^2]
## Associate in Business, General Requirements Degree

## Description

The Maricopa County Community College District Associate in Business General Requirements (ABUS-GR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 ( 4.0 scale) and grades of $C$ or better are required in all courses to earn the degree. The Associate in Business-General Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees.

This degree provides the first two years of a four-year curriculum for students who wish to transfer to a university and pursue a bachelor's degree in business. For a comprehensive list of bachelor's degrees at Arizona's public universities, refer to the AZTransfer Business Matrix. With a bachelor's degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

The Associate in Business-General Requirements degree includes the following components:
I. Required Courses
II. Restricted Electives
III. Arizona General Education Curriculum for Business (AGEC-B)
IV. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Associate in Business General Requirements (ABUS-GR) degree is designed for students who plan to transfer to fouryear colleges and universities. In general, the components of this degree meet requirements for the various business majors (except Computer Information Systems) at Arizona's public universities. Computer Information Systems majors should follow the Associate in Business Special Requirements (ABUSSR) pathway instead. Generally, the ABUS-GR degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience)

Special Academic Policies that Govern the ABUS-GR Degree:

- The ABUS-GR does not include any MCCCD Special Requirements for Oral Communication and/or Critical

Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or transfer guide to verify the specifics for your program.)

## Degree Requirements

The courses required for the Associate in Business General Requirements follow. The following websites identify the courses that apply to the different General Education Areas: AGEC-B and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the Find a Class tool on maricopa.edu or on each MCCCD college's website.

```
ABUS-GR Requirements
                Credits
    I. Required Courses22-28
```

Accounting:
ACC111 Accounting Principles I (3) AND

```ACC112 Accounting Principles II (3) ANDACC212 Managerial Accounting (3)
OR
ACC111 Accounting Principles (3) AND
ACC230 Uses of Accounting Information I (3) AND
ACC240 Uses of Accounting Information II (3)
OR
ACC211 Financial Accounting (3) AND
ACC212 Managerial Accounting (3) 6-9
Some of the following courses can be used to satisfy
both this requirement and an AGEC-B requirement.
AGEC designations are subject to change. See AGEC
Matrix for each course's value(s) in the semester it is
taken.
ECN211 [SB] Macroeconomic Principles (3)
ECN212 [SB] Microeconomic Principles (3)
FYE101 OR FYE103 Introduction to College, Career
and Personal Success (1-3)
GBS205 Legal, Ethical, and Regulatory Issues in
Business (3)
GBS221 Business Statistics (3)
Quantitative Methods:
GBS220 Quantitative Methods in Business (3) OR
MAT217 or MAT218 Mathematical Analysis for
Business (3-4) 3-4
```


## NOTE:

- Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 or MAT218.
- Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220, MAT217, or MAT218.
- Students planning to transfer to the University of Arizona should take GBS220.
II. Restricted Electives 0-6
Complete six (6) credits from the following options. Some courses may be used to satisfy both Restricted Elective and Arizona General Education Curriculum (AGEC) requirements simultaneously. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.

CIS114DE Excel Spreadsheet (3)
CIS133DA Internet/Web Development Level I (3) CIS162AD C\#: Level I (3)

GBS110 Human Relations in Business and Industry (3) OR
MGT251 Human Relations in Business (3)
GBS151 Introduction to Business (3)
GBS220 Quantitative Methods in Business (3)
GBS233 Business Communication (3)
IBS101 Introduction to International Business (3)
MGT253 Owning and Operating a Small Business (3)
MKT271 Principles of Marketing (3)
PAD100 21st Century Public Policy and Service (3)
REA179 Real Estate Principles I (3)
REA180 Real Estate Principles II (3)
REA201 Real Estate Principles I and II (6)
SBU200 Society and Business (3)
(GBS151 recommended)
III. Arizona General Education Curriculum-Arts
(AGEC-B)
29-37*
The AGEC-B requires a minimum of 35 credits ( 32 if
FYC is met by a single transfer course). * Any
Required and Restricted elective course(s) that also have one or more AGEC designation(s) may be used to meet AGEC-B requirements. Credits for such shared courses only count once toward the total for the degree.

Some courses may be met by Required Courses or Restricted electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s), or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.
A. First-Year Composition [FYC] 6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L] 0-3

May Be Met by GBS233 in the Restricted Electives Area.
C. Mathematical Applications [MA] 3-5
MAT212 Brief Calculus (3) OR
MAT213 Brief Calculus (4) OR
Higher General Education Courses in the Mathematical Applications [MA] Area (3-5) 3-5
D. Computer/Statistics/Quantitative Applications [CS] $\qquad$
CIS105 Survey of Computer Information Systems
E. Humanities, Arts and Design [HU] $\qquad$ . 6
Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB] $\qquad$ . 0 Met by Required Courses ECN211 AND ECN212
G. Natural Sciences [SQ/SG] $\qquad$ ... 8

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four (4) credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement.
IV. Awareness Areas $\qquad$ 0-6
The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States $[\mathrm{C}](0-3)$
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

Students transferring to ASU to major in business should complete courses from the following list (up to the 64-credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

- Any course that transfers to ASU in the SOC prefix and carries the [SB] designation
- Any course that transfers to ASU in the PSY prefix and carries the [SB] designation
- One of the following courses in Oral Communication (COM) COM100 Introduction to Human Communication (3) OR

COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) OR
COM259 Communication in Business and Professions (3)

Note: COM requirements vary by business major. Check ASU's MyPath2ASU or major map for acceptable options.

## V. General Electives

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCCD has established recommended courses and sequencing for the various associate's degrees. See maricopa.edu/degrees-
certificates/business-entrepreneurialism-management/associate-business-general-requirements-8900-abus-gr for ABUS-GR course sequence.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HIS ELC for a history elective), or general electives (GEN ELC) that are numbered 100 level or higher, and completed with a grade of $C$ or better, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree.

Transfer advisement information is accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

## Associate in Business, Special Requirements Degree

## Description

The Maricopa County Community College District Associate in Business, Special Requirements (ABUS-SR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 ( 4.0 scale) and grades of $C$ or better are required in all courses to earn the degree. The Associate in Business-Special Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees.

This degree provides the first two years of a four-year curriculum for students who wish to pursue Computer Information Systems majors at Arizona's public universities. With a bachelor's degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, computer information systems, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

The Associate in Business-Special Requirements degree includes the following components:
I. Required Courses
II. Arizona General Education Curriculum for Business (AGEC-B)
III. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Associate in Business Special Requirements (ABUS-SR) degree is designed for students who plan to transfer to fouryear colleges and universities. In general, the components of this degree meet requirements for Computer Information Systems majors at Arizona's public universities. Other Business majors should follow the Associate in Business General Requirements (ABUS-GR) pathway instead. Generally, the ABUS-SR degree transfers as a block without loss of credit to Arizona's public universities and other institutions with districtwide articulation agreements. It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience).

Special Academic Policies that Govern the ABUS-SR Degree:

- The ABUS-SR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or
transfer guide to verify the specifics for your program.)


## Degree Requirements

The courses required for the Associate in Business Special Requirements follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-B and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the Find a Class tool on maricopa.edu or on each MCCCD college's website.

[^3]- Students planning to transfer to the University of Arizona should take GBS220.


## II. Arizona General Education Curriculum-Arts

(AGEC-B) 29-37*
The AGEC-B requires a minimum of 35 credits ( 32 if FYC is met by single transfer course) * Any Required and Restricted elective course(s) that also have one or more AGEC designation(s) may be used to meet AGEC-B requirements. Credits for such shared courses only count once toward the total for the degree.

Some courses may be met by Required Courses or Restricted electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements or Required Course(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.
A. First-Year Composition [FYC] .6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L] .. 3
C. Mathematical Applications [MA] 3-5
MAT212 Brief Calculus (3) OR
MAT213 Brief Calculus (4) OR
Higher General Education Courses in the
Mathematical Applications [MA] area (3-5)
D. Computer/Statistics/Quantitative

Applications [CS]
CIS105 Survey of Computer Information Systems
E. Humanities, Arts and Design [HU] $\qquad$
Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB]. $\qquad$ . 0 Met by Required Courses ECN211 AND ECN212
G. Natural Sciences [SQ/SG] $\qquad$ .. 8
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four (4) credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four (4) credits must be designated as SQ-Science Quantitative. Eight (8) credits of SG-Science General will not satisfy this requirement.
III. Awareness Areas

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

Students transferring to ASU to major in business should complete courses from the following list (up to the 64 -credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

- Any course that transfers to ASU in the SOC prefix and carries the [SB] designation
- Any course that transfers to ASU in the PSY prefix and carries the [SB] designation
- One of the following courses in Oral Communication (COM) COM100 Introduction to Human Communication (3) OR COM225 Public Speaking (3) OR COM230 Small Group Communication (3) OR COM259 Communication in Business and Professions (3)

Note: COM requirements vary by business major. Check ASU's MyPath2ASU or major map for acceptable options.

## IV. General Electives

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines. MCCCD has established recommended courses and sequencing for the various associate's degrees. See maricopa.edu/degrees-certificates/business-entrepreneurialism-management/associate-business-special-requirements-8800-abus-sr for ABUS-SR course sequence.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives
(GENELC) that are numbered 100 level or higher, and completed with a grade of C or better, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree.

Transfer advisement information is accessible on the following websites: aztransfer.com/tools, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

## TOTAL

*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

## Associate in General Studies Degree and General Education Requirements

## Description

The Maricopa County Community College District Associate in General Studies degree requires 60-64 semester credits in courses numbered 100 and above. The degree includes the following components:
I. Required Courses (1-3 credits) First Year Experience (all courses completed with a grade of $C$ or better)
II. General Education (minimum of 35 credits)
A. Core Areas (all courses completed with a grade of $C$ or better)

1. First-Year Composition
2. Mathematics
3. Computer Usage
4. Oral Communication
5. Critical Reading
B. Distribution Areas (all courses completed with a grade of $D$ or better)
6. Humanities, Arts and Design
7. Social-Behavioral Sciences
8. Natural Sciences
9. Literacy and Critical Inquiry
III. General Electives (enough additional courses
numbered 100 or above, completed with a grade of $D$ or better, to bring total credits to at least 60)

## Purpose of the Degree

The Associate in General Studies (AGS) degree is recommended for students whose educational goals require flexibility. The degree allows students to apply any course numbered 100 or above, including some that are not transferable to the Arizona public universities and may not be transferable to other universities, toward the credits required for the degree. Therefore, for students who intend to transfer to another college or university to pursue a bachelor's degree, this degree may be less appropriate than other associate degrees offered by the Maricopa Community Colleges: Associate in Arts (AA); Associate in Arts, Elementary Education (AAEE); Associate in Arts, Fine Arts (AAFA); Associate in Business-General Requirements (ABUS-GR); Associate in Business-Special Requirements (ABUS-SR); Associate in Science (AS); and all emphases of these degrees.

## Academic Policies that Govern the AGS Degree:

- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9).
- First Year Experience is required (FYE 101 or FYE 103).
- A single course can simultaneously count toward a Core Area and a Distribution Area requirement. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas (on the course list at the conclusion of this document). For example, CRE101 may be used to satisfy both the Literacy and Critical Inquiry requirement of the Distribution area and the Core curriculum's Critical Reading area. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. A course cannot satisfy more than one Core area, even if it is approved for more than one Core area. A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.
- Credits transferred from outside of MCCCD must be completed with a grade of $C$ ( 2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be transferred if documentation collected by the community college indicates that this was the only grading option available to the student and that the Pass grade ("P") is equivalent to a C or better.
- Completion of the AGS with a minimum Grade Point Average (on a 4.0 scale) of at least 2.0 for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. However, meeting all AGS minimums does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment. Furthermore, because the AGS is not designed to align with the requirements for
bachelor's degrees, not all credits may be transferable and students may have deficiencies in lower division (100- and 200-level) courses for a particular major.


## Summary of Degree Requirements

Details on how to identify courses approved for each of the categories is described following the outline.

```
AGS Requirements
I. Required Courses ..... 1-3
FYE101 Introduction to College, Career and Persona
```Success (1) ORFYE103 Exploration of College, Career and PersonalSuccess (3)
```

II. MCCCD General Education ..... 35-48*
A. Core Areas ..... 13-19

1. First-Year Composition ..... (6*)
ENG101 OR ENG107 AND
```ENG102 OR ENG108
```

2. Mathematics ..... (3-6)
3. Computer Usage ..... (1)
4. Oral Communication ..... (3)
```COM100 Introduction to HumanCommunication ORCOM110 Interpersonal Communication ORCOM225 Public Speaking ORCOM230 Small Group Communication ORCOM100AA \& COM100AB \& COM100AC (3credits) ORCOM110AA \& COM110AB \& COM110AC (3credits)
```

5. Critical Reading(0-3)CRE101 Critical Reading OR equivalent asindicated by assessment
B. Distribution Areas22-29
6. Humanities, Arts and Design

$\qquad$ ..... (9)Students are encouraged to choose coursework from more than one discipline.
2. Social-Behavioral Sciences $\qquad$ (6-9)
Students are encouraged to choose course work from more than one discipline. If COM100, COM110, or COM230 is shared between the AGS' Core and Distribution areas, the Social-Behavioral Sciences requirements for the degree may be met with just 6 additional credits in this area (see Academic Policies section on prior page). The credits for the shared COM
course are only counted once, but they may be applied to meet both Oral Communication and Social-Behavioral Science requirements.
3. Natural Sciences $\qquad$
Select additional courses 100 -level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.
4. Literacy and Critical Inquiry $\qquad$
The Literacy and Critical Inquiry requirement may be met by CRE101 (which also satisfies Critical Reading) or COM225 (which also satisfies Oral Communication) with a grade of C or better. The credits for shared courses are only counted once, but may be applied to meet both a Core (see course list above) and a Distribution Area requirement.

Alternatively, the Literacy and Critical Inquiry requirement may be met with a grade of " $D$ " or better by selecting an additional 3 credits from the list of approved options.
III. General Electives.............................................. 13-26

Select additional courses 100 -level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

TOTAL 60-64
*First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

All courses listed meet AGS requirements as specified. Courses in Purple Italic Underline also meet Arizona General Education Curriculum AGEC requirements.

Courses in bold print and underscored simultaneously count towards a Core Area and a Distribution requirement.

## AGS GENERAL EDUCATION CORE

(16 credits - grade of C or better) *
First-Year Composition (6 credits) *
ENG English [101, 107] \& [102, 108]
Oral Communication (3 credits)
COM Communication 100, 100AA \& 100AB \& 100AC, 110, 110AA \& 110AB \& 110AC, 225, 230

## Critical Reading (3 credits)

CRE Critical Reading 101 or Equivalent as indicated by assessment

## Mathematics (3 credits)

MAT Mathematics 112, 114, 115, 120, 121, 122, 126, 140 , $141,142,145,146,150,150$ \& $182,151,151$ \& 182 , $152, \underline{152} \& 182,155,155 \& 182, \underline{156}, \underline{156} \& \underline{182}, \underline{172}$, $\underline{187}, 206, \underline{212}, \underline{213}, \underline{217}, \underline{218}, \underline{220}, \underline{221}, \underline{225}, \underline{227}, \underline{230}$, 231, 240, 241, 256, 257, 276, 277, Equivalent course/Satisfactory completion of a higher level Mathematics course

## Computer Usage (1 credit)

Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

| ACC | Accounting 115 |
| :---: | :---: |
| ADA | Advertising Arts 169, 175, 177, 183, 283, 289 |
| AJS | Administration of Justice Studies 205 |
| ARC | Architecture 243, 244, 245 |
| AVC | Art and Visual Communication 100, 169, 170, 173, 175, 177, 179, any 180++ course, 183, 283, 289 |
| BIO | Biology 283 |
| BPC | Business-Personal Computers Any BPC Course(s), including 110 |
| CIS | Computer Information Systems Any CIS Course(s), including $105,162 A B, 162 A D, 163 A A$ (and except 159, 162AC, 217AM, 259) |
| CSC | Computer Science Any CSC Course(s), including $100 \mathrm{AA}, 100 \mathrm{AB}, 110,110 \mathrm{AA}, 110 \mathrm{AB}, 120,150,150 \mathrm{AA}$, $180180 \mathrm{AA}, 180 \mathrm{AB}, 181,181 \mathrm{AA}, 181 \mathrm{AB}, 182,182 \mathrm{AA}$, 205, 205AA, 205AB, 205AC, 205AD, 283 (and except 200, 200AA, 200AB, 210, 210AA, 210AB) |
| CTR | Court Reporting 101, 102 |
| DFT | Drafting Technology 105AA**, 254AA <br> **Must be taken with CSC100AA or AB to meet AGEC Value |
| ECH | Early Childhood Education 238 |
| EDU | Education 115 |
| EED | Early Education 115 |
| EEE | Electrical Engineering 120 |
| ELE | Electronic 131, 181, 241, 243, 245 |
| ELT | Electronic Technology 131, 243 |
| ENG | English 100AE |
| FMP | Film, Media, and Production 215 |
| FON | Food and Nutrition 100 |
| GBS | General Business $\underline{221}$ |
| GIS | Geographic Information Science 205, 211 |
| HRM | Hotel Restaurant Management 126 |
| JRN | Journalism 133 |
| LAS | Paralegal Studies 229 |
| MAT | Mathematics $\underline{206}$ |
| MTC | Music Theory/Composition 180, 191 |
| MUC | Music: Commercial/Business $\underline{180}$ |
| NET | Networking Technology 181 |
| OAS | Office Automation Systems 111AA |

PSY Psychology 230, 230WL
SWU Social Work 225

## AGS GENERAL EDUCATION DISTRIBUTION AREAS

(28-29 credits - grade of $D$ or better)

## Humanities, Arts and Design (9 credits)

Students are encouraged to choose courses from more than one discipline.

AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s), including 100,
101, 102, 109, 110, 112, 115, 118, 145, 201, 203, 204,
217, 216, 240, 250
ART Art 131
ASB Anthropology 211, 214, 220, 222, 223, 253
CCS Chicana and Chicano Studies 101
COM Communication 241
CON Construction 101 (formerly CNS101)
DAH Dance Humanities 100, 201, 250, 255
EDU Education $\underline{230}$ (eff. Spring '22), 291, 292, $\underline{294}$
ENG English 200, 213, 218
ENH English Humanities Any ENH Course(s), including 110,
$111,112,113,114,117,130, \underline{140 A A}, 190,201,202$,
204, 206, 214, 221, 222, 230, 231, 232, 235, 241, 242,
245, 251, 253, 254, 255, 256, 259, 260, 275, 277,
277AE, 277AG, 277AA-AK, 280, 284, 285, 291, 294, 295 (and except 250)
FMT Film, Media, and Theatre 107
FRE French 265
GST Game Studies 202
HCR Health Care Related 210
HIS History 101, 102, 103, 108, 110, 111, 113, 114, 203, 212, 251, 252
HON Honors 190
HUM Humanities Any HUM course(s), including 100, 101, 107, 108, 190AA, 190AB, 190AC, 190AD, 190AE, 190AF, 190AG, 190AH, 190AI, 201, 202, 205, 206, 209, 210, 211AA, 211AE, 212, 213, 214, 215, 216, 220, $\underline{235}, \underline{245}, \underline{250}, \underline{251}, \underline{260}, \underline{261}, \underline{292}, 295$ (and except 120, 225)
INT Interior Design 115, 120
LAT Latin 201, 202
MHL Music: History/Literature 140, 143, 145, 146, 153, 155, 194, 204, 241, 242, 295
PHI Philosophy Any PHI Course(s), including 101, 103, $104, \underline{105}, \underline{201}, \underline{212}, \underline{213}, 214,215,216,218,224$, 233AA, 233AB, 233AC, 244, 245, 250, 251, 282AC
REL Religious Studies Any REL Course(s), 100, 101, 151, $\underline{200}, \underline{202}, \underline{203}, \underline{205}, \underline{206}, \underline{207}, \underline{210}, 211, \underline{212}, 213,214$, $218,223, \underline{225}, 230, \underline{240}, \underline{244}, 245,248, \underline{250}, \underline{251}, \underline{270}$, 271, 277, 292, 294, 295, 282AA-AC, 290, 291
SLC Studies in Language and Culture 201, 202

Spanish 241, 242, 265, 266
SPH
SSH
STO
SWU
TEC
THE
THF
THP Theater/Performance/Production 217, 241
WST Women's Studies 209, 284, 285, 290

## Social-Behavioral Sciences (6-9 credits)

Students are encouraged to choose courses from more than one discipline. Social-Behavioral Sciences requirements may be met with 6 credits only if COM100, COM110, or COM230 is shared between Core and Distribution (see Academic Policies section). The credits are only counted once, but may be applied to meet Oral Communication and Social-Behavioral Science requirements.

AFR African American Studies 202, 203, 204
AIS American Indian Studies 101, 140, 141,160
AJS Administration of Justice Studies 101, 119, 200, 225, 258, 270
ASB Anthropology 100, 102, 202, 211, 222, 223, 226, 230, 235, 252
ASM Anthropology 104/275
BHS Behavioral Health Services Technology 150, 155, 175, 210
CAP Counseling and Applied Psychology 120
CCS Chicana and Chicano Studies 202
CFS Child/Family Studies 112, 157, 159, 176, 205, 235, 259
COM Communication 100, 100AA \& 100AB \& 100AC, 110, 110AA \& 110AB \& 110AC, 163, 230, 250, 263
CPD Counseling and Personal Development 180
ECH Early Childhood Education 176
ECN Economics 160, 211, 212, 213, 250
EDU Education 221, 222
EED Early Education 200, 205, 222
EMT Emergency Medical Technology 258
ENG English 213
FOR Forensic Science 275
FSC Fire Science Technology 258
GCU Cultural Geography 102, 113, 121, 122, 141, 221
HES Health Science $\underline{100}$
HIS History any HIS Course(s), including 100, 101, 102, $103,104,105,106,108,109,113,114,140,145,173$, 190, 201, 203, 204, 209, 240, 241, 242, 273, 277 (and except $111,170,251,252)$
HON Honors 201
HUM Humanities 235
IBS International Business 109
IFS Information Studies 201, 210, 213
MCO Mass Communications 120
MGT Management 229, 230

PAD Public Administration 200
POS Political Science Any POS course(s), including 100, $101, \underline{110}, \underline{113}, \underline{114}, \underline{115}, \underline{120}, \underline{125}, \underline{130}, \underline{140}, 180, \underline{210}$,
221, 222, 223, 281AB, 282AA-AC, 285
PSY Psychology 101, 123, 132, 156, 157, 215, 218, 225, 235, 240, 241, 243, 250, 260, 262, 266, 277, 280, 292
REC Recreation 120
SBU Society and Business 200
SLC
Studies in Language and Culture 201
SOC Sociology Any SOC course(s), including 101, 110, 130,
141, 157, 180, 212, 220, 241 251, 266, 270 (and
except $143,245,253,265)$
SSH Sustainability/Social Sciences and Humanities 111
SUS Sustainability/Natural Sciences 110
SWU Social Work 171, 182, 250, 258, 295
TEC Textiles and Clothing 105
WED Wellness Education $\underline{110}$
WST Women's Studies 100, 161
YAQ Yaqui Indian History and Culture 100

## Natural Sciences (7-8 credits)

Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

AGS Agricultural Science 164, 260
ASB Anthropology (Soc/Behv. Science) 231
ASM Anthropology (Science/Math) 104, 265, 275
AST Astronomy 101, 106, 111, 112
BIO Biology 100, 101, 102, 105, 107, 108, 109, 111, 145,
149AF, 149AH, 149AK, 149AL, 149AM, 149AN, 156,
156XT $, ~ 160, ~ \underline{181}, \underline{181 X T}, \underline{182}, \underline{182 X T}, \underline{201}, \underline{201 X T}, \underline{202}$, 205, 241
CHM Chemistry 107 \& 107LL, 130 \& 130LL, 130AA, 150 \& 151LL,150AA, 151 \& 151LL, 151AA, 152 \& 152LL, 152AA, 154 \& 154LL, 230 \& 230LL, 230AA
CON Construction 106 (formerly CNS106)
ENV Environmental Sciences 101
FON Food and Nutrition 241 \& 241LL
FOR Forensic Science 105, 106, 275
GLG Geology 101 \& 103, $101 \mathrm{IN}, 102$ \& 104, $102 \mathrm{IN}, 105$, $106, \underline{110} \& 111, \underline{110 I N}, 121,140,229 A B-A C, 230 A A-$ AC, 231AA-AD, 280, 281, 282AA
GPH Physical Geography 111 \& 112, 113, 211, 212 \& 214, $\underline{213}$ \& 215
PHS Physical Science 110, 115, 120
PHY Physics 101, 101AA, 111, 111AA, 112, 115, 116, 121, 131
PSY Psychology 275, 290AB, 290AC

Literacy and Critical Inquiry (0-3 credits)
Literacy requirements may be met with 0 credits only if CRE101
or COM225 is shared between Core and Distribution (see
Academic Policies section). The credits are only counted once,
but may be applied to meet [Critical Reading and Literacy and Critical Inquiry] or [Oral Communication and Literacy and Critical Inquiry] requirements.

| AIS | American Indian Studies 203, 213 |
| :---: | :---: |
| CAP | Counseling and Applied Psychology 260 |
| CPD | Counseling and Personal Development 160 |
| COM | Communication 222, 225, 241 |
| CRE | Critical Reading 101, 201 |
| CUL | Culinary Arts 223 |
| DAH | Dance Humanities $\underline{255}$ |
| EDU | Education 220, 282AC |
| ENG | English 111, 200, 215, 216, 217, 218 |
| ENH | English Humanities 241, 253, 254, 255, 277AE, 277AG |
| EXS | Exercise Science 290 |
| FON | Food and Nutrition $\underline{225}$ |
| GBS | General Business $\underline{233}$ |
| GPH | Physical Geography 267 |
| HUM | Humanities 225, 235, 250, 251 |
| IFS | Information Studies 201 |
| JRN | Journalism 201, 210, 234 |
| MCO | Mass Communications 220 |
| MHL | Music: History/Literature 204 |
| PHI | Philosophy 103, 218, 224, $\underline{244}$ |
| POS | Political Science 115 |
| PSY | Psychology 290AB, 290AC |
| REL | Religious Studies 203, 205, 207, 244 |
| SLC | Studies in Language and Culture 202 |
| THE | Theatre $\underline{220}$ |
| THP | Theatre Performance/Production $\underline{241}$ |

## Elective Courses (15-22 credits)

May select courses from prefixes already chosen for General Education Distribution requirements in order to develop depth in one or more subject areas.

* First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.


## Associate in Science Degree

## Description

The Maricopa County Community College District Associate in Science (AS) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Science, Emphasis in Physics). Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for credit minimums. A minimum grade point average of 2.0 (4.0 scale) and grades of $C$ or better are required in all courses to earn the degree. The AS degree is governed by the MCCCD General Academic Policies for Degrees Designed for University Transfer.
I. The Associate in Science degree includes the following components:
II. Program Prerequisites (as specified by emphasis area)
III. Required Courses
IV. Restricted Electives (as specified by emphasis area)
V. Arizona General Education Curriculum for Science (AGEC-S)
VI. MCCCD Additional Requirements (Oral Communication and Critical Reading)
VII. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Associate in Science (AS) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematicsbased science requirements. Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. It does not, however, guarantee acceptance into particular university majors/programs with a limited number of students. Students should consult with their transfer institution for any specific admission requirements (e.g., GPA, letters of reference, work experience).

In most cases, courses used to satisfy the MCCCD Associate in Science (AS) will apply to general university graduation requirements of the majors that align with the AS degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AS with majors at the Arizona public universities can be accessed via the following website: aztransfer.com/tools

It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of the Associate in Science degree.

Special Academic Policies that Govern the AS Degree:

- The AGEC-S does not require a course with [CS] Computer/Statistics designation.
- Unlike the AGEC-A and AGEC-B, the same course is allowed to satisfy the ([L] and [HU]) or ([L] and [SB]) areas for the AGEC-S. The credits for such a "shared" course are only counted once toward the required minimum for the degree.


## Degree Requirements

The requirements for the Associate in Science (AS) follow. The AS degree requires at least 60 credits; however, minimum
credits for the AS may vary for a specific area of emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis and credit minimums. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-S and the AGEC Matrix.

## AS Requirements <br> Credits

I. Program Prerequisites $\qquad$ Number varies
Program prerequisites for the AS degree vary by specific emphasis, and are neither required for all emphases nor for the general AS degree without a specific emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.
II. Required Courses $\qquad$ Number varies Students must complete FYE 101 (1) or FYE 103 (3) and select the required courses for the specific AS degree emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.
III. Restricted Electives $\qquad$ Number varies Restricted electives for the AS degree vary by specific emphasis and are not required for the general AS degree without a specific emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

## IV. Arizona General Education Curriculum-Arts

 (AGEC-S) up to 56The AGEC-S requires a minimum of 36 credits ( 33 if FYC is met by single transfer course) *. Courses applied to meet AGEC-A requirements vary by emphasis. Refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis for specific courses required and credit minimums.

Any prerequisite/required/restricted elective courses that also have one or more AGEC designation(s) may be applied toward both requirements. Credits for such shared courses are only counted once toward the total credits for the degree.

AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken. Some of the courses have been approved for more than one designation. Notes below will show
how such courses may be used to meet multiple degree requirements.
A. First-Year Composition [FYC]. 6*
ENG101 OR ENG107 (3) *
AND ENG102 OR ENG108 (3) *
B. Literacy and Critical Inquiry [L] $\qquad$ 0-3**
Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use CRE101 or COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)
C. Mathematical Applications [MA] 4-5
The AGEC-S requires the first semester of a calculus sequence designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a prerequisite.
D. Humanities, Arts and Design [HU] $\qquad$ 6 For the AGEC-S, a single course with both [HU] and [L] designations may satisfy both Areas. Note that some [HU] courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.
E. Social-Behavioral Sciences [SB] $\qquad$ 6 For the AGEC-S, a single course with both [SB] and [L] designations may satisfy both Areas. Note that some [SB] courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)
F. Natural Sciences [SQ/SG] 8-10
Students must complete 8-10 credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer major for guidance or refer to curriculum.maricopa.edu and click on Current Programs to search for the corresponding area of emphasis.
[(CHM150 or CHM151) \& CHM151LL] or CHM150AA or CHM151AA General Chemistry I AND
[CHM152 \& CHM152LL] or CHM152AA General Chemistry II
OR
PHY115 or PHY121 University Physics I
AND
PHY116 or PHY131 University Physics II OR

BIO181 or BIO181XT General Biology (Majors) I
AND
BIO182 or BIO182XT General Biology (Majors) II OR
GLG101IN Introduction to Geology I - Physical or GLG101 Introduction to Geology I - Physical Lecture and
GLG103 Introduction to Geology I - Physical Lab AND
GLG102IN Introduction to Geology II - Historical or
GLG102 Introduction to Geology II - Historical Lecture and
GLG104 Introduction to Geology II - Historical Lab
G. Subjects Options - Math/Science 6-10
Students should refer to transfer resources, including academic advisement and transfer guides, to select 6-10 additional math and/or science credits that meet requirements for the selected major.

This Math/Science requirement can be met by selecting Mathematics course(s) (MAT) that require Calculus I as a prerequisite and/or Computer Science course(s) (CSC) and/or additional Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO, CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)
H. Awareness Areas. $\qquad$ 0-6
The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)
V. MCCCD Additional Requirements $\qquad$ 0-6
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC Matrix on aztransfer.com/tools for course designations.
A. Oral Communication

COM100 [SB] Introduction to Human Communication OR COM110 [SB] Interpersonal Communication OR COM225 [L] Public Speaking OR COM230 [SB] Small Group Communication (3 credits) OR
COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
B. Critical Reading.

CRE101 [L] Critical Reading OR equivalent as indicated by assessment
VI. General Electives 0-28
Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. MCCCD has established recommended courses and sequencing to align with various "Emphasis Areas" in one of nine different "Fields of Interest." See maricopa.edu/degreescertificates for links to these transfer pathways.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of $C$ or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites:
aztransfer.com/tools, maricopa.edu/degrees-certificates/transfer/pathways-partners as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.
TOTAL 60-64**
*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ
for a single course that meets FYC in full.
**(O only if shared with HU or SB)

* 64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities.

Some exceptions apply; consult with an academic advisor for additional transfer information.

## Bachelor of Arts Degree

## Description

The Maricopa County Community College District Bachelor of Arts (BA) degree requires a minimum of 120 semester credits for the program of study; minimum total credits vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums for individual degree programs. A minimum grade point average of 2.0 and course grades of $C$ or higher are required to earn the degree.

The Bachelor of Arts (BA) degree includes the following components:
I. Program Prerequisites (if applicable)
II. Required Courses
III. Restricted Electives
IV. Arizona General Education Curriculum for Arts (AGEC-A)
V. MCCCD Additional Requirements (Oral Communication)
VI. General Electives (if needed to reach minimum credits for degree)

## Purpose of the Degree

The Bachelor of Arts (BA) degree is an undergraduate college degree that requires students to complete a core of general education courses and then focus remaining coursework on a core and electives in a major such as fine arts and humanities, business, or education. The Bachelor of Arts degree prepares students to continue their education at the graduate level, complete requirements for disciplinary certification, and/or pursue a wide variety of careers.

## Degree Requirements

The requirements for the Bachelor of Arts (BA) follow. No versions of the BA require fewer than a minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Additionally, a minimum of 30 credits of coursework must be completed at the upper-division (300/400 level). Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the Find a Class tool on maricopa.edu and on each MCCCD college's website.

## BA Requirements <br> Credits

I. Program Prerequisites $\qquad$ Number varies Program prerequisites for the Bachelor of Arts degree vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.
II. Required Courses $\qquad$ Number varies
Students who have not already earned an associate or higher degree, must complete FYE101 (1) OR FYE103 (3) and select the required courses for the specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.
III. Restricted Electives $\qquad$ Number varies Restricted electives for the Bachelor of Arts degree vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific courses and credit minimums by major.
IV. Arizona General Education Curriculum-Arts (AGEC-A) $\qquad$ up to 44 The AGEC-A requires a minimum of 35 credits ( 32 if FYC is met by single transfer course) *. However, prerequisite/required/restricted elective courses may also meet AGEC-A requirements but are only counted once toward the total credits for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course) * as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGEC-A requirements vary by major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well other AGEC requirements, Required Course(s) or Restricted Elective(s). Courses may meet more than one requirement but are only counted once toward the total credits for the degree. AGEC designations are subject to change.

```
A. First-Year Composition [FYC]. 6*
            ENG101 OR ENG107 (3) *
    AND ENG102 OR ENG107 (3) *
```

B. Literacy and Critical Inquiry [L] $\qquad$ .3

May be met by CRE101 among other courses
C. Mathematical Applications [MA] 3-6
Requires a course in college mathematics
(MAT140, MAT141, MAT142, MAT145, MAT146) or college algebra (MAT150, MAT151, MAT152, MAT155, MAT156) or precalculus (MAT187) or higher [MA]-approved general education course.
D. Computer/Statistics/Quantitative Applications [CS]3
E. Humanities, Arts and Design [HU] ..................... 6

Students are encouraged to choose course work from more than one discipline.
F. Social-Behavioral Sciences [SB] $\qquad$
Students are encouraged to choose course work from more than one discipline.
G. Natural Sciences [SQ/SG] $\qquad$ . 8

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.
H. Awareness Areas. $\qquad$ 0-6

The same course(s) may be used to satisfy one or more Awareness Area(s) as well as other AGEC requirements. (See AGEC Matrix for current course values). Credits for such shared courses may only be counted once.

1. Cultural Diversity in the United States [C] (0-3)
2. Global Awareness [G] OR Historical Awareness [H] (0-3)

May be met by [HU] and/or [SB] course depending on specific course(s) selected. (AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.)
V. MCCCD Additional Requirements $\qquad$
As noted below, courses in this area may also be applied toward AGEC-A requirements.
A. Oral Communication (0-3)
COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication
VI. General Electives $\qquad$ Number varies

Select courses 100-level or higher if needed to complete a minimum of 120 semester credits. Ideally, students should select courses that meet requirements for their major/area of interest and graduate-level transfer institution.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC). For appropriate course selection, students should consult with an academic advisor.

## TOTAL

120**
*FYC may be met with fewer than 6 credits if a student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
**120 semester credits are the minimum of 120 credits; however, minimum credits for a BA may vary by specific major. Refer to the Program (Degree) Search at curriculum.maricopa.edu for credit minimums by major.

## Graduation Requirements

## First Year Experience

Beginning in the Fall 2022 semester, all new students will be required to take a First Year Experience (FYE) course. These courses are a degree requirement for Maricopa Community Colleges students who are beginning any degree or transfer program.

Which course is right for you? Look at the questions below and determine your best fit!

## FYE101 Introduction to College, Career and Personal Success

FYE101 is a 1-credit course designed to help students learn how to succeed at your Maricopa Community College. You will explore your field of interest, confirm your program or degree pathway, understand the financial considerations for your career, and meet with your advising team.

Are you a student who:

- is returning to college and needs to focus on completing a degree or transferring to a 4-year university?
- is transferring from another college but new to Maricopa?
- is confident in your chosen program of study and would like to take a deeper dive into your respective field of interest?
- recently completed high school or another early college program and feels on track for your next steps in Maricopa?
- is paying out of pocket and needs to consider every option?

If the majority of the above apply to you, then FYE 101 is right for you!

## FYE103 Exploration of College, Career and Personal

 SuccessFYE103 is a 3-credit course that is similar to FYE101, but it also helps students determine what program is best for them, provides strategies for school/life balance, assists in preparing students for work in a diverse world, and provides opportunities for students to build connections.

Are you a student who:

- is new to college and unsure/anxious around college expectations and available resources?
- is undecided on your major or field of interest and needs some help researching and considering the best options for you and your future?
- is concerned about taking math, English or other prerequisite courses that align with your major and need to have additional information on how to be successful throughout the first year?
- has been out of school/college for more than 3 years and/or is concerned about your ability to manage work, school, family, and life?
- needs to meet full-time enrollment requirements for financial aid or scholarships and is concerned about taking more than 4 classes?
- would benefit from understanding of how you prioritize your finances while a college student and after you graduate?
- is interested in learning about resources available to support your academic pathway, like transportation, child care, housing, and/or additional financial assistance?
- is interested in understanding your own identity better and how to appreciate differences in your peers?

If the majority of the above apply to you, then FYE 103 is right for you!

## General Graduation Requirements

## ADMINISTRATIVE REGULATION 2.3.9

## Earning a Certificate or Degree

The Maricopa Community Colleges offers certificates and degrees in a variety of areas. Each certificate and degree have specified program requirements for graduation. See certificate and degree information for specific program requirements. It is the student's responsibility to be aware of these requirements.

Candidates for graduation must satisfy the following requirements:

- Complete the minimum number of credits required for the certificate or degree. For degrees, at least 15 credits must be completed at the awarding college. For certificates that are 15 or more credits, at least 6 credits must be completed at the awarding college. For certificates that are 14 or fewer credits, at least half of the credits must be completed at the awarding college. Exceptions to this institutional residency policy must have prior written approval of the program director, department/division chair, or
designee and documentation of rationale and approval included as part of application to graduate.
- All new to Maricopa students who declare an Associate degree, an Associate in Applied Science degree, or intend transfer to a college/university to complete a Bachelor's degree, will be required to successfully complete a first-year experience course (FYE101 or FYE103) within the first two semesters at a MCCCD college.
- Meet the general education, program requirements, and electives for the certificate or degree required. Requirements can be satisfied by MCCCD coursework, prior learning assessment, and transfer credit. No more than 45 credit hours can be accepted and applied to a degree using transfer credit and/or prior learning assessment. Transfer credit and prior learning assessment does not count as hours in residence for graduation requirements. Exceptions to this institutional policy must have prior written approval of the program director, department/division chair, or designee and documentation of rationale and approval included as part of application to graduate.
- Earn a minimum cumulative grade point average (GPA) of 2.0 on a four-point grading scale in all lettergraded courses (100-level and above) (completed in residence and accepted in transfer) used to fulfill requirements at the college granting the degree or certificate. Some awards may specify additional GPA requirements.
- Remove all deficiencies (e.g. incomplete grades, missing transcripts, national test results, etc.) on the record to use those courses toward program completion.
- Fulfill any financial obligations with the college.
- File a Petition for Graduation with the Admissions \& Records/Enrollment Services Office.
- The same degree or certificate can only be awarded once within the Maricopa Community College District.


## AutoAward Policy

MCCCD has an auto-award program that identifies some students who have completed a degree or certificate and never submitted a Petition for Graduation (e.g. Reverse Transfer). However, this program is limited and students should not depend on it for graduation. The Petition for Graduation should always be submitted when a student is intending to graduate.

## Maricopa Nursing Program

For the Maricopa Nursing program, the cumulative GPA for awarding purposes is calculated based on courses required for the degree or certificate taken at any Maricopa campus and includes pre-requisites, co-requisites, and nursing blocks. Students must apply for graduation from the college where
they have successfully completed Block 4 of the Associate in Applied Science in Nursing.

## Graduation with Honors

All courses used to fulfill graduation and degree requirements, including courses from other institutions are used in the grade point average calculation (GPA) at graduation. Degree-seeking students who have distinguished themselves with GPAs 3.50 and higher are recognized with the following graduation honors:

- to 3.69 graduation "with distinction"
- to 3.89 graduation "with high distinction"
- to 4.0 graduation "with highest distinction"

Certificate programs are not eligible for institutional honors.

## Maricopa Community Colleges Allied Health or Nursing Program

## STUDENTS APPENDIX S-13

## Allied Health or Nursing Assumption of Risk/Release of Liability

Most of the allied health or nursing program pathways include a program of study in a clinical training environment that may contain exposures to risks inherent in patient-oriented educational experiences (such as but not limited to bodily injury or communicable and infectious diseases). Students enrolling in clinical educational courses will be asked to sign a statement assuming all risks inherent in their coursework.

## Use of Confidential Information

Students enrolled in allied health or nursing program pathways will have learning experiences in a health care setting where they will have access to confidential information. Prior to beginning any clinical studies, the students will be asked to sign an agreement to adhere to the requirements of those clinical sites and applicable law, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

## MCCCD Required Background Checks

Students enrolled in an MCCCD allied health or nursing program are required to complete and pass clinical learning experiences, working with children, elderly persons, and other vulnerable populations. MCCCD's major clinical agency partners now mandate that any college students assigned to them for clinical experiences submit to a comprehensive background clearance prior to entering such learning experiences. Because the clinical experience portion of the programs is critical to completing a program of study, MCCCD has instituted two specific background check requirements in order for a student to enroll in a program. First, the student must obtain, at his or her own cost, a Level I Fingerprint Clearance Card from the

Arizona Department of Public Safety. Precluding offenses for a Level I card can be found in Arizona Revised Statute § 411758.07
(https://www.azleg.gov/viewdocument/?docName=https://ww w.azleg.gov/ars/41/01758-07.htm). Additionally, students must also obtain a "pass" status on a MCCCD supplemental background check from MCCCD's authorized background check contractor. The student must also pay for this background check. The supplemental check will be based on the most stringent standards of MCCCD's clinical experience partners.

The sole program for which the background check requirements are different is the Emergency Medical Technician program. For that program, students must have obtained a Level 1 Fingerprint Clearance Card from the Arizona Department of Public Safety. They are also required, at the time of their clinical assignments, to submit to, pay for and pass any additional background check requirements of the clinical agencies to which their EMT program places students.

Certain licensing boards may require a separate background check or clearance card upon application for licensure or certification.

The MCCCD supplemental background check review may include searches of the following databases and information but MCCCD reserves the right to change the search criteria and the program background check requirements at any time without notice:

1. National Federal Health Care and Abuse Databases
2. Social Security Verification
3. Residency History
4. Arizona Statewide Criminal Records
5. Nationwide Criminal Databases
6. Nationwide Sexual Offender Registry
7. Homeland Security Search

Examples of background information that will result in a "fail" status on the supplemental background check include:

1. Social Security number does not belong to the applicant
2. Any inclusion on any registered sex offender database
3. Any inclusion on any of the Federal exclusion lists or Homeland Security watch lists
4. Any conviction of a felony no matter what age of the convictions
5. Any warrant any state
6. Any misdemeanor conviction for the following no matter how long ago:
a. Violent crimes
b. Sex crime of any kind including nonconsensual sexual crimes and sexual assault
c. Murder, attempted murder
d. Abduction
e. Assault
f. Robbery
g. Arson
h. Extortion
i. Burglary
j. Pandering
k. Any crime against minors, children, vulnerable adults including abuse, neglect, exploitation
I. Any abuse or neglect
m. Any fraud
n. Illegal drugs
o. Aggravated DUI
7. Any misdemeanor-controlled substance conviction in last seven (7) years
8. Any other misdemeanor conviction within the last three (3) years [EXCEPTIONS: Any misdemeanor traffic (DUI is NOT considered traffic).

The information that MCCCD uses for the "pass/fail" background check is subject to change at any time without notice. MCCCD recommends that students carry proof of the background clearance at all times during any clinical agency learning experience.

## Duty to Report Changes; Removal

Students have an obligation to immediately report to the director of their program any change in the information that they supplied on forms submitted to initiate background checks relating to the allied health or nursing program. That includes information provided to the Arizona Department of Public Safety and MCCCD's supplemental background check vendor, as well as that related to the background check required by a clinical agency. Failure to do so will result in removal from the program. Additionally, any change in background check status that would affect the student's clearance under either MCCCD's or a clinical agency's standards will result in removal from a program.

## Additional Clinical Agency Background Check

Some clinical agencies require that students assigned to their sites submit to a criminal background check covering other offenses, as well as to a drug screening. Students are required to pay for the additional agency clinical background check. A clinical agency that requires this additional background check may refuse to place a student due to information the clinical agency obtains in its background check even though that student possesses a valid Level I Fingerprint Clearance Card and has obtained a "pass" status on the MCCCD supplemental background check.

Some conditions that have resulted in students being denied placement at clinical agencies include pending criminal charges, outstanding warrants, unfinished terms of a sentence (such as unpaid fines), pattern of repeated types of arrests/convictions,
and failure to disclose all past arrests/convictions when asked to do so on any background check application.

## Inability to Place

MCCCD has no obligation to make repeated attempts to place a student when the reason for MCCCD's inability to place the student is due to background check issues. Since clinical agency assignments are mandatory requirements for completion of a program, a student's inability to complete required clinical experience due to his or her background check issues will result in removal from the program.

## Changes to Admission or Background Check Requirements

MCCCD may change its program admission requirements or background check requirements without notice at any time.

## No Guarantee of Receipt of Licensure/Certificate

Many of the nursing and allied health programs prepare graduates for application for State or National certificates or licenses. In some professions, such licensure and certification are required prior to employment or practice in the profession. Graduation from a nursing and allied health program does not guarantee the receipt of a license or certificate to practice in the field of study.

## Catalog Under Which A Student

## Graduates

## ADMINISTRATIVE REGULATION 2.2.5

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a public community college and/or public university in the state of Arizona.

The rules for maintaining continuous enrollment are:

- A semester in which a student earns course credit will be counted toward continuous enrollment.
- Noncredit courses, audited courses, or courses from which the student withdraws do not count toward continuous enrollment.
- Failure to enroll in three consecutive regular (fall or spring) semesters breaks continuous enrollment; however, enrollment in the intervening summer terms may be used to maintain continuous enrollment status.
- If continuous enrollment is not maintained, the student must fulfill the requirements for graduation specified in the catalog in effect for the academic
year in which they re-enroll or any subsequent catalog of their continuous enrollment.
- Students who initially enrolled or re-enrolled during a summer term must follow the annual catalog of the subsequent academic year or any subsequent catalog of their continuous enrollment.


## Age of Credit

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Coursework that is more than ten years old is applicable to completion of certificate and degree requirements at the discretion of the designated individuals at the college. The college may accept such coursework, reject it, or request that the student revalidate its substance. The tenyear limit on coursework applies except when program accreditation agencies limit the life of coursework to less than eight years. Departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs, when completing earlier requirements is no longer possible or educationally sound.

## University Transfer

## University Transfer

## ADMINISTRATIVE REGULATION 2.2.13

The Maricopa Community Colleges have developed formal agreements to facilitate the transfer of credit to four-year colleges and universities. This is accomplished through the development of course and program articulation agreements. The Maricopa Community Colleges articulate with accredited private, public, and international baccalaureate granting institutions. Maricopa transfer agreements are on behalf of the District as a whole and not with individual colleges within the district. Courses taken at any of the Maricopa Community Colleges are equally transferable by institutions wishing to articulate. Students planning to transfer to a university may be required to submit official transcripts.

Articulated Transfer Programs and pathways between the Maricopa Community Colleges and baccalaureate-granting institutions [such as the Maricopa-ASU Pathway Program (MAPP), the UA Bridge Program, 2NAU and 90/30 transfer agreements] are official, recognized programs of study that fulfill both associate degree and bachelor's degree requirements. These articulated programs and pathways are designed to aid in a smooth transition for a student planning to transfer to a four-year college or university by identifying the required, transferable, and applicable coursework for that student's specific program of study. A complete list of Maricopa-ASU Pathway Program requirements by major and catalog year is maintained on ASU'S website, at Transfer.

## Arizona Public Community Colleges and Universities

Maricopa is a participant in the Arizona statewide transfer system. AZTRANSFER.COM is the official source of information for the statewide articulation agreements between the Arizona public community colleges and universities (Arizona State University, Northern Arizona University, and University of Arizona). Included on AZTRANSFER.COM is the Course Equivalency Guide (CEG), which shows transfer course equivalencies between Arizona's public community colleges and tribal institutions to Arizona State University, Northern Arizona University, and the University of Arizona. The transferability of a course does not indicate directly how the course will apply to meet requirements for specific bachelor's degrees. AZ Transfer Course Equivalency Guide

## (U.S.) and International Institutions

The Maricopa Community Colleges have transfer agreements with accredited U.S. universities and colleges as well as international institutions that have been approved by the Ministry of Education. These partnerships are formalized through District-wide memorandums of understanding and articulation agreements, and are designed to help students
maximize the applicability of transfer credit toward a bachelor's degree. To access a list of institutions with which Maricopa has established articulation agreements, visit: Maricopa University Partner List

## Time Limit for Transfer Coursework

Students should be aware other colleges and universities may have age of credit limits on certain coursework to be used in transfer. Students should refer to the policy of their intended transfer institution regarding time limits for transfer coursework.

## Shared Unique Numbering (SUN) System Course Information

Senate bill 1186, which passed into law in 2010, mandated the creation of a shared numbering system for public college and university courses in Arizona to identify courses that transfer from community colleges to universities toward a baccalaureate degree. The Shared Unique Number (SUN) system is a college course numbering system designed to help students locate and enroll in courses that have direct equivalents for transfer among Arizona's public community colleges and three state universities. However, even if a course at the Maricopa Community Colleges is not designated as a SUN course, it may still transfer to other Arizona public institutions with a direct equivalent as per the course equivalency guide on AZTRANSFER.COM. The SUN system does not address the applicability of courses. Students are encouraged to work with an Academic Advisor on course selections. To access a list of SUN courses, visit SUN

## General Academic Policies for Associate Degrees Designed for University Transfer

The following academic policies govern the associate degrees designed for university transfer: Associate in Arts (AA); Associate in Arts, Elementary Education (AAEE); Associate in Arts, Fine Arts (AAFA); Associate in Business-General Requirements (ABUS-GR); Associate in Business-Special Requirements (ABUS-SR); and Associate in Science (AS). Note that academic policies that govern the Associate in General Studies (AGS) and Associate in Applied Science (AAS) degrees are listed separately, with the requirements for each of those degrees.

- The graduation policies within the general catalog must be satisfied (administrative regulation 2.3.9). First Year Experience required (FYE101 Or FYE103)
- Minimum semester credits for completion vary slightly by degree and specific emphasis (when applicable). Refer to the Program (Degree) Search at
https://curriculum.maricopa.edu/ for credit minimums for individual degree programs.
- Credits completed toward these minimums must be in courses numbered 100 or above with a grade of $C$ or better. These credits must include a minimum of $35^{*}$ in satisfaction of the requirements of the Arizona General Education Curriculum (AGEC) along with a maximum of 6 credits towards MCCCD's Additional Requirements.
- Detailed degree requirements are maintained by the Center for Curriculum and Transfer Articulation (CCTA); refer to the program search at https://curriculum.maricopa.edu/.


## General Education Requirements:

- The AGEC requirements include a designated number of courses approved for each of the following areas:
- First Year Composition [FYC]
- Mathematical Applications [MA]
- Computer/Statistics/Quantitative Applications [CS] (not required for Associate in Science)
- Literacy and Critical Inquiry [L]
- Humanities, Arts and Design [HU]
- Social-Behavioral Sciences [SB]
- Natural Sciences: Science Quantitative [SQ], Science General [SG]
- Awareness Area: Cultural Diversity in the U.S. [C]
- Awareness Area: Global [G] or Historical [H] Awareness
- Note that there are three different AGECs each aligning with a different subset of associate degrees--AGEC-A for the AA, AAEE, and AAFA degrees; AGEC-B for the ABUS-GR and ABUS-SR degrees; and AGEC-S for the AS degree. For some types of AGECs/Associate degrees, students are allowed to choose from a broad list of courses; for others the courses are more restricted or even specified.
- A single course can simultaneously count toward one or more areas in the following. Awareness Areas of [C]; and/or [H]/[G] may be shared with AGEC requirements. MCCCD Additional Requirements e.g. Oral Communication and Critical Reading may be shared with other AGEC requirements. For example, CRE101 may be used to satisfy both the MCCCD Reading Requirement and [L] in the AGEC core. For some degree types, other lower division courses can be used to meet the degree requirements.
- While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. Except for the AGEC-S, a single course cannot be used to satisfy
more than one AGEC core requirement, with the exception of Awareness Areas. For example, a course cannot be used to satisfy [HU] and [SB], but a course can be used to meet [HU] and [C], [G] and/or [H].
- The AGEC-A and AGEC-B require a minimum of 35 credits* and the AGEC-S requires a minimum of 36 credits*; however, the AGEC credit count within the total credits for a degree may be under these minimums if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Awareness Areas and MCCCD's Additional Requirements may also be shared with AGEC Core Areas. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64 .
- All MCCCD courses applied to the AGEC must be completed with a grade of $C$ or better. All MCCCD courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the Course Equivalency Guide for the academic year in which the course was taken. Courses applied exclusively to the Bachelor of Applied Science are ineligible for inclusion in the AGEC.


## Coursework beyond General Education:

- For some degree types, the additional coursework required to complete the degree is specified while others offer the student more latitude. See degree check sheets for more complete description. Consultation with an academic advisor about course selection is always recommended.
- Oral Communication and Critical Reading are MCCCD Additional Requirements required for Associate in Arts; Associate in Arts, Elementary Education; Associate in Arts, Fine Arts; and Associate in Science degrees. Refer to the Program (Degree) Search at curriculum.maricopa.edu for acceptable options to meet these requirements for individual degree programs.
- Within the Restricted Electives, course recommendations are made for specific transfer institutions. Students should select a transfer plan (group of courses) based on their intended transfer institution. However, not all transfer institutions are reflected in these recommendations. Therefore, students may instead meet the minimum number of Restricted Elective credits using a combination of courses from the transfer plans listed. Restricted Electives should be selected in consultation with an academic, faculty, or program advisor.
- Note that some majors require up to a 4 th semester proficiency (202-course level) in a non-English
language. Students should consult with an academic advisor to discuss options to complete these requirements.
- General Electives may need to be selected to meet the minimum total credits required for the degree. Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives, (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer advisement information is accessible on the following websites: aztransfer.com, curriculum.maricopa.edu, as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.
- Any course cross-referenced under another prefix(es) (for example ENH291/EDU291-Children's Literature) covers identical content and its credits can only be counted once toward requirements.


## Transfer Credit from Institutions Outside of MCCCD:

- Credits transferred from outside of MCCCD must be at a grade of C ( 2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade ("P") is equivalent to a C or better.
- External courses evaluated either as equivalent to an MCCCD course or as elective credit may be applied toward the minimum credits for degree completion.
- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on AZTransfer's Course Equivalency Guide (CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCCD direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements will be based on the source institution's AGEC designation for the semester in which the course was completed.
- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System composed of Arizona's public community
colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCCD equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment is transferable to the other colleges in the district but is not necessarily transferable to other colleges and universities. No more than 20 such assessed semester credit hours may be applied toward AGEC, and no more than 30 credits (including up to 20 toward AGEC) may be applied toward a degree.


## Completion and Transfer

Completion of the AGEC with a minimum Grade Point Average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.

While MCCCD's associate degrees are designed to facilitate a seamless transfer to other Arizona institutions, courses may be transferable and/or meet associate degree requirements, but may not necessarily meet the specific requirements of a particular degree, major, or area of emphasis at another institution.

Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree and within their allowed transferable credit limit. For some majors, the statewide Common Course matrix and AZTransfer Major Guides at aztransfer.com and/or university transfer guides can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.
*Credit minimums may be lower if students have transfer credit from ASU, NAU or UAZ for a single course that meets First Year Composition in full. See notes on individual degree policies.

## Transfer Pathways

The Transfer Pathways program is a unique agreement between Maricopa Community Colleges and Arizona State University, Northern Arizona University, and the University of Arizona that provides guaranteed admission and university advising support throughout your first two years of college.

Under a pathway's agreement, you are considered a university transfer and are given a degree map that includes all of the courses you need to move seamlessly into the university program. You can contact your university advisor at any point leading up to transfer to confirm your course requirements and discuss any issues that might arise as you work toward your degree.

Beyond Transfer Pathways with Arizona's public universities, Maricopa Community Colleges also has well-established partnerships with more than 40 institutions within and outside the state. Private and out-of-state transfer partners include Grand Canyon University, Prescott College, Columbia College Chicago, and Western New Mexico University, to name a few.

Connect with your Advisor or Transfer Representative to create your customized transfer plan.

## Associate in Arts (AA)

- AA, Emphasis in American Indian Studies
- AA, Emphasis in Anthropology
- AA, Emphasis in Communication
- AA, Emphasis in Community Health
- AA, Emphasis in Counseling and Applied Psychological Science
- AA, Emphasis in Criminal Justice
- AA, Emphasis in Early Childhood Education
- AA, Emphasis in Economics
- AA, Emphasis in Educational Studies Early Childhood
- AA, Emphasis in English (Creative Writing)
- AA, Emphasis in English (Literature)
- AA, Emphasis in Exercise Science
- AA, Emphasis in Family Life Education
- AA, Emphasis in Geography
- AA, Emphasis in History
- AA, Emphasis in Humanities
- AA, Emphasis in Information Studies and eSociety
- AA, Emphasis in Japanese
- AA, Emphasis in Journalism and New Media Studies
- AA, Emphasis in Law and Policy
- AA, Emphasis in Mathematics
- AA, Emphasis in Nutritional Science
- AA, Emphasis in Philosophy
- AA, Emphasis in Political Science
- AA, Emphasis in Psychology
- AA, Emphasis in Religious Studies
- AA, Emphasis in Secondary Education
- AA, Emphasis in Social Work
- AA, Emphasis in Sociology
- AA, Emphasis in Spanish
- AA, Emphasis in Sustainability and Environmental Studies
- AA, Emphasis in Speech and Hearing Science
- AA, Emphasis in Women and Gender Studies


## Associate in Arts, Fine Arts (AAFA)

- AAFA, Emphasis in Art
- AAFA, Emphasis in Dance
- AAFA, Emphasis in Music
- AAFA, Emphasis in Musical Theatre
- AAFA, Emphasis in Theatre


## Associate in Science (AS)

- AS, Emphasis in Astronomy
- AS, Emphasis in Biochemistry
- AS, Emphasis in Biological Sciences
- AS, Emphasis in Chemistry
- AS, Emphasis in Computer Science
- AS, Emphasis in Engineering
- AS, Emphasis in Geography - Meteorology
- AS, Emphasis in Geology
- AS, Emphasis in Physics
- AS, Emphasis in Secondary Education


## Academic Departments

## Art and Humanities

Department Chair: Brendan Regan
Phone: (623) 845-3449
Email: brendan.regan@gccaz.edu
Description: GCC offers a wide range of classes in the study of art and humanities. Students can choose from a number of disciplines in both theoretical and production-based courses. Degrees and certificates are offered in various mediums that focus on traditional skills through the latest technological advances. Non-Degree seeking students interested in broadening their artistic skills are also encouraged to enroll.

Field of Interest: Visual and Performing Arts

## Programs of Study:

- Digital Arts
- Film
- Fine Arts
- Humanities
- Photography


## Degrees and Certificates:

- Animation (CCL)
- Animation and Time-Based Media (AAS)
- Associate in Arts, Fine Arts, Emphasis in Art
- Commercial and Freelance Photography (CCL)
- Digital Media Arts (AAS)
- Documentary Film Production (CCL)
- Film and Media Production (AAS)
- Photography (AAS)

Course Subjects:

- ARH Art Humanities
- ART Art
- AVC Art and Visual Communication
- FMP Film and Media Production
- FMT Film, Media, and Theatre
- HUM Humanities


## Automotive Technology

Department Chair: Lyle Clark
Phone: (623) 845-4545
Email: Iyle.clark@gccazu.edu
Description: Are you a gear head who loves turning wrenches and fixing your own car? Do you have the mechanical aptitude to become a certified auto mechanic? Are you already in the auto-repair field and want to learn more?
Since 1978, GCC's Automotive Technology program has taught students from the casual, home-based auto mechanic to General Motors, Chrysler and Ford certified automotive repair
technicians. You can study a single technical aspect of vehicle repair, or earn a degree that will launch a career at a shop or dealer.

Small class sizes allow for plenty of hands-on shop time with individual attention from instructors who spent careers in the automotive repair industry.
GCC automotive technology programs are certified by the National Institute for Automotive Service Excellence (ASE) and evaluated by the National Automotive Technicians Education Foundation (NATEF).

Field of Interest: Applied Technology
Programs of Study: Automotive Service

## Degrees and Certificates:

- Automotive Automatic Transmission and Transaxle (CCL)
- Automotive Brake Systems (CCL)
- Automotive Chassis (CCL)
- Automotive Drive Train (CCL)
- Automotive Electrical, Heating, Ventilation and Air Conditioning Systems (CCL)
- Automotive Electronic/Electrical Systems (CCL)
- Automotive Engine and Operations Management (CCL)
- Automotive Engine Repair (CCL)
- Automotive Engine Management and Repair (CCL)
- Automotive Heating, Ventilation and Air Conditioning Systems (CCL)
- Automotive Maintenance and Light Repair (CCL)
- Automotive Manual Drive Train and Axles (CCL)
- Automotive Service (AAS)
- Automotive Service (CCL)
- Automotive Steering and Suspension (CCL)


## Course Subjects:

- ASE Automotive Services
- AUT Automotive Technology


## Biology

Department Chair: Dr. Karen Conzelman
Phone: (623) 845-3612
Email: karen.ann.conzelman@gccaz.edu
Description: In brief, biology is the scientific study of living things -- a diverse spectrum of organisms ranging from bacteria to fungi, protozoans, algae, ferns, conifers, flowering plants, flatworms, nematodes, earthworms, insects, arachnids, crustaceans, starfish, sea anemones, sea urchins, jellyfish, reptiles, amphibians, fish, birds, and mammals.

The field of biology is often divided into a variety of areas of specialization including the following:

- Zoology - study of animals (often further subdivided into fields like Entomology-study of insects, Ornithology-study of birds, Herpetology-study of amphibians and reptiles)
- Botany - study of plants
- Microbiology - study of bacteria and other microbes
- Ecology - study of the interactions between living things and the environment
- Evolutionary Biology - study of changes in organisms over time
- Developmental Biology - study of embryonic changes that grow and organize the cells derived from a zygote into a fully formed organism
- Cell Biology - study of the structure and function of the smallest units of life
- Molecular Biology - study of molecular basis of life, including the chemical reactions of metabolism, the enzymes that control those reactions, the heritable genetic information encoded in DNA, and the nature of gene expression
- Genetics - study of inherited physical and biochemical traits and the frequency of those traits in populations
- Virology - study of viruses and prions

However, the lines between these disciplines is increasingly quite blurred -- techniques of study and information gathered about one area frequently shed light on others. This connectedness is a reflection of the unifying characteristics of life on Earth.

Field on Interest: Science, Technology, Engineering and Mathematics

Programs of Study: Biology

## Degrees and Certificates:

- Associate in Science, Emphasis in Biological Sciences
- Biotechnology and Molecular Biosciences (AAS)


## Course Subjects:

- ABS Applied Biological Sciences
- AGS Agricultural Science
- BIO Biology


## Business and Information Technology

Department Chair: Rachelle Hall, MPA
Phone: (623) 845-3231
Email: rachelle.hall@gccaz.edu
Description: The Business \& Information Technology Department (BIT) hosts an array of opportunities for our students. We offer degrees and certificates of completion in fields such as General Business, Management, Marketing, Small Business, Computer Information Systems, Office Applications, Accounting, Cybersecurity and more. Our students can venture into many different fields on their road to success.

The BIT department just received recognition for their Information Technology program through the Best Accredited Colleges organization and ranked second out of 50 colleges and universities for having the best Associate Degree in Information Technology Programs.

## Field of Interest:

- Business, Entrepreneurialism and Management
- Computer and Information Technology


## Programs of Study:

- Accounting, Banking and Finance
- Business
- Business and Organizational Management
- Computer Information Systems
- Desktop Support
- Entrepreneurial Studies
- Marketing
- Networking and Security
- Programming and Mobile Applications
- Real Estate and Real Estate Appraisal
- Video Game Production
- Web Design and Development


## Degrees and Certificates:

- Accounting (AAS)
- Accounting (CCL)
- Administrative Professional (AAS)
- Administrative Professional (CCL)
- Adobe Foundations: Animation and Graphics Production (CCL)
- Associate in Business, General Requirements
- Associate in Business, Special Requirements
- Business Administration Fastrack (CCL)
- Certified Bookkeeping (CCL)
- Commercial Real Estate (CCL)
- Computer System Configuration and Support, Linux (CCL)
- Critical Infrastructure (CCL)
- Cyber Engineering (CCL)
- Cyber Operations (CCL)
- Cybersecurity (AAS)
- Cybersecurity Fundamentals (CCL)
- Desktop Support (CCL)
- Enrolled Agent (CCL)
- Entrepreneurial Studies Level I (CCL)
- Entrepreneurial Studies Level II (CCL)
- General Business (AAS)
- General Business (CCL)
- Human Resources Management (CCL)
- Information Security (AAS)
- Information Security Technology (CCL)
- Information Technology (AAS)
- iOS App Development (CCL)
- Linux Associate (CCL)
- Linux System Administration (CCL)
- Management (AAS)
- Management (CCL)
- Marketing (CCL)
- Marketing and Sales (AAS)
- Microsoft Desktop Associate (CCL)
- Microsoft Office Professional (CCL)
- Microsoft Office Specialist (CCL)
- Microsoft System Administration (CCL)
- Network and Systems Administration (AAS)
- Organizational Leadership (CCL)
- Organizational Management (AAS)
- Programming and Systems Analysis (AAS)
- Programming and Systems Analysis Level I (CCL)
- Programming and Systems Analysis Level II (CCL)
- Real Estate: Prelicense (CCL)
- Red Hat Linux Administrator (CCL)
- Red Hat Linux Engineer (CCL)
- Retail Management (AAS)
- Retail Management (CCL)
- Securities Industry Essentials (CCL)
- Security Industry Essentials: Pre-licensure (CCL)
- Small Business Management Level I (CCL)
- Small Business Management Level II (CCL)
- Social Media Marketing (CCL)
- Video Game Production (AAS)
- Video Game Production: Audio and Sound (CCL)
- Video Game Production: Coding and Scripting (CCL)
- Video Game Production: Game Art (CCL)
- Video Game Production: Game Narrative (CCL)
- VMware Foundations (CCL)
- VMware Network Administrator (CCL)
- VMware Systems Administrator (CCL)
- Web App Development (CCL)
- Web Design (CCL)
- Web Design/Development (AAS)
- Web Development (CCL)
- Web Foundations (CCL)


## Course Subjects:

- ACC Accounting
- AET Aeronautics
- AIM Artificial Intelligence and Machine Learning
- BPC Business-Personal Computers
- CIS Computer Information Systems
- COV Covey
- CSM Customer Service Management
- EPS Entrepreneurial Studies
- GBS General Business
- HTM Healthcare Technology Management
- IBS International Business
- IND Industry
- INS Insurance Studies
- ITS Information Technology Security
- MGT Management
- MKT Marketing
- MST Microsoft Technology
- OAS Office Automation Systems
- PAD Public Administration
- REA Real Estate
- SBS Small Business Management
- SBU Society and Business


## Chemistry

Department Chair: Debbie Leedy, Ph.D.
Phone: (623) 845-4770
Email: debbie.leedy@gccaz.edu
Description: Chemistry, the study of matter and energy and their transformations, helps us understand the physical world and our impact on it. Chemistry answers questions like:

- Why does ice float?
- Where do the colors in fireworks come from?
- How do electric cars work? Explore a fuel cell.
- What do lumber and pasta have in common?

Enroll in chemistry classes to begin working toward an associate's degree in Biotechnology or Molecular Biosciences, or to finish general science requirements before transferring to a bachelor's degree program.

Field of Interest: Science, Technology, Engineering and Mathematics

## Programs of Study:

- Biochemistry
- Chemistry


## Degrees and Certificates:

- Associate in Science, Emphasis in Biochemistry
- Associate in Science, Emphasis in Chemistry

Course Subjects: CHM Chemistry

## Communication and World Languages

Department Chair: Kimberly Fled, Ph.D.
Phone: (623) 845-4818
Email: k.feld@gccaz.edu
Description: Developing skills in oral and written communications, business communications, and public speaking will help you compete in any career field. GCC offers a broad range of communication courses, including interpersonal communication skills, business communication, intercultural and English fluency, public speaking and argumentation and small group communication.

Courses such as Argumentation (COM222), Public Speaking (COM225), and The Art of Storytelling (EDU292) will raise your communication skills to the next level.

## Field of Interest:

- Culture and Society
- Health Sciences


## Programs of Study:

- Communication
- Communication Sciences and Disorders
- Ethnic Studies
- Language


## Degrees and Certificates:

- Associate in Arts, Emphasis in Communication
- Associate in Arts, Emphasis in Japanese
- Associate in Arts, Emphasis in Spanish
- Associate in Arts, Emphasis in Speech and Hearing Science
- Chicana and Chicano Studies (AC)
- Communication Competence in the Workplace (AC)
- Communication Skills for Non-Native English Speakers (AC)
- Language Studies (AC)
- Oral Communication Fluency for Non-Native English Speakers (AC)


## Course Subjects:

- ARB Arabic
- ASL American Sign Language
- CHI Chinese
- COM Communication
- FRE French
- GER German
- ITA Italian
- JPH Japanese Humanities
- JPN Japanese
- LAT Latin
- POR Portuguese
- RUS Russian
- SLC Studies in Language and Culture
- SPA Spanish
- SPH Spanish Humanities


## Counseling

Department Chair: Paul Romo
Phone: (623) 845-3051
Email: paul.romo@gccaz.edu
Description: The GCC Counseling Faculty are teaching faculty and also providers of non-clinical services. For more information about our services, visit the Counseling Services website.

The Counseling Department provides courses under the CPD (Career and Personal Development), BHS (Behavioral Health Sciences) course prefixes, and offers Certifications and Industry Training for First Responders and Health Care providers.

Field of Interest: Behavioral Sciences and Human Services
Programs of Study: Behavioral Health Sciences

## Degrees and Certificates:

- Advanced Behavioral Sciences (CCL)
- Associate in Arts, Emphasis in Counseling and Applied Psychological Science
- Behavioral Sciences (AAS)
- Foundations of Behavioral Sciences (CCL)


## Course Subjects:

- AAA Advancing Academic Achievement
- ASD Addictions and Substance Use Disorders
- BHS Behavioral Health Services Technology
- CAP Counseling and Applied Psychology
- CPD Counseling and Personal Development
- CWE Career Work Experience
- FYE First Year Experience


## English, Reading, Journalism and Creative Writing

Department Chair: Dr. Jennifer Lane
Phone: (623) 845-3196
Email: jennifer.lane@gccaz.edu
Description: In the English Department at GCC you'll find courses in composition, reading, literature, English as a Second Language, creative writing, journalism, and developmental reading and writing. These classes and others contribute to an Associate in Applied Sciences (AAS) in Public Relations, a Certificate of Completion (CCL) in Journalism, and an Academic Certificate (AC) in Creative Writing.

You'll find traditional and accelerated classes, both in person and online, scheduled at various times, day and night, to provide the flexibility you need to complete your academic goals.

GCC English classes are offered at main campus and GCC North.
We look forward to meeting you in one of our classes.
Field of Interest: Culture and Society

## Programs of Study:

- Creative Writing
- English Literature
- Journalism


## Degrees and Certificates:

- Associate in Arts, Emphasis in English (Creative Writing)
- Associate in Arts, Emphasis in English (Literature)
- Associate in Arts, Emphasis in Journalism and New Media Studies
- Creative Writing (AC)


## Course Subjects:

- ALT Academic Literacy
- CRE Critical Reading
- CRW Creative Writing
- ENG English
- ENH English Humanities
- ESL English as a Second Language
- JRN Journalism
- MCO Mass Communications
- NMS New Media Studies
- RDG Reading


## Fitness and Wellness

Department Chair: Lisa Lewis
Phone: (623) 845-3784
Email: lisa.lewis@gccaz.edu
Description: Glendale Community College is a proud Gold-Level Exercise is Medicine campus recognized by the American College of Sports Medicine. Whether you want to become a fitness professional, or just walk on the treadmill, the Fitness and Wellness department has classes to fit your needs - and your lifestyle.

Field of Interest: Health Sciences

## Programs of Study: Exercise Science

## Degrees and Certificates:

- Associate in Arts, Emphasis in Exercise Science
- Exercise Science: Health, Fitness, and Sports Performance (AAS)
- Health and Wellness Coaching (CCL)
- Personal Training (CCL)
- Personal Training: Advanced (CCL)


## Course Subjects:

- EXS Exercise Science
- HES Health Science
- HWC Health and Wellness Coaching
- PED Physical Education
- REC Recreation
- RPM Recreational Program Management
- SPT Sports
- WED Wellness Education
- YOG Yoga


## Library

Department Chair: Elizabeth Saliba
Phone: (623) 845-3746
Email: elizabeth.saliba@gccaz.edu
Description: In addition to our normal library services, the GCC Library offers Information Studies (IFS) courses and an Associate in Arts, Emphasis in Information Studies and eSociety degree.

The Associate in Arts (AA), Emphasis in Information Studies and eSociety degree is an interdisciplinary program designed to prepare you for work in information-rich settings such as marketing, social media, libraries, editing, copywriting, public relations, online content creation and communication. You will examine your role as a content creator and consumer in a global society, critically engage with information, and communicate and collaborate across diverse populations and platforms. This program also provides university transfer options in addition to workforce preparedness.

Field of Interest: Culture and Society
Programs of Study: Information Studies and eSociety
Degrees and Certificates: Associate in Arts, Emphasis in Information Studies and eSociety

Course Subjects: IFS Information Studies

## Mathematics and Computer Sciences

Department Chair: Chris Miller, Ph.D.
Phone: (623) 845-3841
Email: c.miller@gccaz.edu
Description: GCC will meet all your Math and Computer Science needs. Our students participate in math competitions, computer programming competitions, STEM (Science, Technology, Engineering \& Mathematics) club, Computer Science Organization club and tutoring for both math and computer science.

No matter if you are considering math as your major or are trying to complete math requirements for other majors, the GCC Math Department is here to assist you. We offer classes from Basic Arithmetic all the way through Calculus and Differential Equations, and Statistics. If you fear math, need to learn study skills or are not a good test taker, consider Tutored Math (MAT108), a 2-credit class that provides extra tutoring and support for your other math classes. We, also, offer all 100 and 200 level computer science courses that transfer to ASU, UofA, NAU and other university partners.

## Field of Interest:

- Computer and Information Technology
- Science, Technology, Engineering and Mathematics


## Programs of Study:

- Computer Science
- Mathematics


## Degrees and Certificates:

- Associate in Arts, Emphasis in Mathematics
- Associate in Science, Emphasis in Computer Science


## Course Subjects:

- CSC Computer Science
- MAT Mathematics


## Nursing

Department Chair: Dr. Grace Paul, DNP, M.Phil, MSN, RN, CNE
Phone: (623) 845-3626
Email: grace.paul@gccaz.edu
Description: Start on the pathway to becoming a nurse today. MaricopaNursing at GCC can show you how to jumpstart your NA/CNA, RN, or BSN education. MaricopaNursing offers a district-wide curriculum that is centered on our core values of caring, critical thinking, holism, nursing role development, safe practice, and information management.

We look forward to working with you to meet your career goals and invite you to be a part of MaricopaNursing at Glendale Community College.

Field of Interest: Health Sciences

## Programs of Study: Nursing

## Degrees and Certificates:

- Nurse Assisting (CCL)
- Nursing (AAS)
- Practical Nursing (CCL)


## Course Subjects:

- HCC Health Core Curriculum
- HCR Health Care Related
- NCE Nursing: Continuing Education
- NUR Nursing Science: Basic
- PLB Phlebotomy


## Performing Arts

Department Chair: Donald Smith, DMA
Phone: (623) 845-3070
Email: don.smith@gccaz.edu
Description: Whether you are looking to earn an Associate degree in one of our comprehensive performing arts programs, learn a new skill in music, music technology, dance or theatre or participate in one of our many performing groups for majors, non-majors and community members, the Performing Arts Department at Glendale Community College has many options for you to explore.

Field of Interest: Visual and Performing Arts

## Programs of Study:

- Dance
- Music Industry Studies
- Music Performance
- Musical Theatre
- Theatre


## Degrees and Certificates:

- Associate in Arts, Fine Arts, Emphasis in Dance
- Associate in Arts, Fine Arts, Emphasis in Music
- Associate in Arts, Fine Arts, Emphasis in Musical Theatre
- Associate in Arts, Fine Arts, Emphasis in Theatre
- Audio Production Technologies (AAS)
- Audio Production Technologies (CCL)
- Music Business I (CCL)
- Music Business II (CCL)
- Music Industries: Music Business (AAS)
- Technical Theatre: Audio Technician (CCL)
- Technical Theatre: Costuming (CCL)
- Technical Theatre: Stage Crew Technician (CCL)


## Course Subjects:

- DAH Dance Humanities
- DAN Dance
- MHL Music: History/Literature
- MTC Music: Theory/Composition
- MUC Music: Commercial/Business
- MUE Music: Education
- MUP Music: Performance
- THE Theatre
- THF Theatre and Film
- THO Theatre Occupation
- THP Theatre Performance/Production


## Philosophy and Religious Studies

Department Chair: Peter Lupu, M.A.
Phone: (623) 845-3747
Email: peter.lupu@gccaz.edu
Description: Classes in Philosophy and Religious Studies help students cultivate a mindset of mutual respect and foster the exchange of ideas. Explore interdisciplinary perspectives on religious traditions, eastern and western philosophy and spirituality, ethics, bioethics, logic, and Native American religious traditions. Complimenting these courses are traditionspecific courses in Judaism, Islam and Christianity, as well as thematic courses on women in religion, the philosophy of sexuality, and environmental ethics.

Field of Interest: Culture and Society

## Programs of Study:

- Philosophy
- Religious Studies
- Women and Gender Studies


## Degrees and Certificates:

- Associate in Arts, Emphasis in Philosophy
- Associate in Arts, Emphasis in Religious Studies
- Associate in Arts, Emphasis in Women and Gender Studies


## Course Subjects:

- AHU Arabic Humanities
- PHI Philosophy
- REL Religious Studies
- WST Women's Studies


## Physical Sciences

## Department Chair: David Raffaelle

Phone: (623) 845-3676
Email: david.raffaelle@gccaz.edu
Description: The study of physical science explores our environment, from the smallest mineral components to the farthest star. We offer first and second-year courses in:

- Geology
- Astronomy
- Physics \& Physical Science

Whether you are on a path toward an advanced degree in science, or just want to learn a little more about the physical world we live in, the small class size and personal instructor attention at GCC will help you achieve your learning goals.

We love to teach science! Learn more at our annual campus events: the Arizona SciTech Festival, or Engineer Your Future held in March.

Explore geology on campus at Project Geoscape, or study our state on a field trip with Geology faculty.

Field of Interest: Science, Technology, Engineering and Mathematics

Programs of Study:

- Astronomy
- Geology
- Physics


## Degrees and Certificates:

- Associate in Science, Emphasis in Astronomy
- Associate in Science, Emphasis in Geology
- Associate in Science, Emphasis in Physics


## Course Subjects:

- AST Astronomy
- GLG Geology
- PHS Physical Science
- PHY Physics


## Psychology

Department Chair: Julie Morrison, Ph.D.
Phone: (623) 845-4761
Email: jule.morrison@gccaz.edu
Description: Our department provides students with many unique opportunities to learn about how the brain works, understand other people and our relationships with them, how human beings develop and change over time, how to conduct and evaluate psychological research, ways to establish and maintain good mental health, as well as how to deal with some of the difficulties of mental health that can arise.

We offer a wide variety of interesting classes and many 'out of classroom' experiences for you to explore psychology.

Field of Interest: Behavioral Science and Human Services
Programs of Study: Psychology

## Degrees and Certificates:

- Associate in Arts, Emphasis in Psychology
- Developmental Disabilities Specialist (CCL)

Course Subjects: PSY Psychology

## Public Safety Sciences

Department Chair: Todd Polansky
Phone: (623) 845-3908
Email: todd.polanksy@gccaz.edu
Description: The Public Safety Science department trains students to serve in the public sector or advance in careers as police officers, firefighters, paramedics, and EMTs. The GCC Law Enforcement Training Academy is certified by the Arizona Peace Officer Standards and Training Board (AzPOST).

## Field of Interest:

- Behavioral Sciences and Human Services
- Health Sciences


## Programs of Study:

- Administration of Justice
- Emergency Medical Technology
- Emergency Response Management
- Fire Science
- Law and Policy
- Paramedicine


## Degrees and Certificates:

- Administration of Justice Studies (AAS)
- Administration of Justice (CCL)
- Associate in Arts, Emphasis in Criminal Justice Forensic Science
Associate in Arts, Emphasis in Law and Policy
- Community Health Paramedicine (CCL)
- Corrections (CCL)
- Crime Scene Investigation (CCL)
- Critical Care Paramedicine (CCL)
- Driver Operator (CCL)
- Emergency Management (CCL)
- Emergency Medical Technology (CCL)
- Emergency Medical Technology Comprehensive (CCL)
- Fingerprint Identification and Photography (CCL)
- Fire Science (AAS)
- Fire Service Management (AAS)
- Fire Service Management (CCL)
- Firefighter Operations (CCL)
- Forensic Science (AAS)
- Homeland Security (CCL)
- Law Enforcement (CCL)
- Law Enforcement Investigation (CCL)
- Law Enforcement Training (AAS)
- Law Enforcement Training Academy (CCL)
- Leadership in Public Safety Organizations (CCL)
- Legal Studies (CCL)
- Non-Sworn Fire Service Professional (CCL)
- Paramedicine (AAS)
- Paramedicine (CCL)
- Tactical Emergency Casualty Care (CCL)
- Victimology (CCL)


## Course Subjects:

- AGB Agribusiness
- AGL Agricultural Landscape4
- AJS Administration of Justice
- EMT Emergency Medical Technology
- FSC Fire Science Technology
- LET Law Enforcement Training
- PME Paramedicine
- PSA Public Safety Administration


## Social Sciences

Department Chair: Reid "R.J." Leamaster
Phone: (623) 845-3280
Email: reid.leamaster@gccaz.edu
Description: Social science disciplines teach critical thinking and observation skills and challenge us to examine the world around us.

Home to 10 disciplines and the GCC Campus Weather Station, the Social Science department offers more than 250 classes each semester. Follow your interest and find your passion, whether in Macroeconomics, Magic or Meteorology!

## Choose from:

- Anthropology \& Archeology
- American Indian Studies
- Economics
- Environmental Sciences
- Geography
- History
- Political Science
- Social Work
- Sociology
- Sustainability
- Teacher Education

Many GCC Social Science courses fulfill Social-Behavioral Sciences (SB), Humanities (HU), Global (G) and other requirements. Classes are offered in-person and online.

## Field of Interest:

- Anthropology
- Economics
- Education
- Geography
- History
- Political Science
- Social Work
- Sociology
- Sustainability
- Sustaining and Advancing Indigenous Nations


## Programs of Study:

- Culture and Society
- Education
- Science, Technology, Engineering and Mathematics


## Degrees and Certificates:

- Bachelor of Arts, Elementary Education and Special Education
- Associate in Arts, Elementary Education
- Associate in Arts, Emphasis in American Indian Studies
- Associate in Arts, Emphasis in Anthropology
- Associate in Arts, Emphasis in Economics
- Associate in Arts, Emphasis in Geography
- Associate in Arts, Emphasis in History
- Associate in Arts, Emphasis in Secondary Education
- Associate in Arts, Emphasis in Social Work
- Associate in Arts, Emphasis in Sociology
- Associate in Arts, Emphasis in Sustainability and Environmental Studies
- Associate in Science, Emphasis in Geography Meteorology
- Associate in Science, Emphasis in Secondary Education
- Sustainability (AC)


## Course Subjects:

- AFR African American Studies
- AIS American Indian Studies
- ASB Anthropology (Soc/Behv Sci)
- ASM Anthropology (Science/Math)
- CCS Chicana and Chicano Studies
- ECN Economies
- EDU Education
- ENV Environmental Sciences
- GCU Cultural Geography
- GPH Physical Geography
- HIS History
- LDR Leadership
- POS Political Science
- SOC Sociology
- SPE Special Education
- SSH Sustainability/Social Sciences and Humanities
- STO Storytelling
- SUS Sustainability/Natural Sciences
- SWU Social Work


## Technology and Consumer Sciences

Department Chair: Angela Jordan
Phone: (623) 845-4632
Email: angela.jordan@gccaz.edu
Description: are proud to offer high quality occupational and academic transfer programs to our community and welcome the opportunity to help you achieve your dreams and goals. We invite you to use the links on the left to navigate a variety of exciting career fields offered through this department.

Our major areas of focus are Cisco Networking, Computer Aided Drafting, Early Childhood Education, Engineering Science, Family Life Education, Food and Nutrition Science, Welding and Woodworking.

## Field of Interest:

- Applied Technology
- Behavioral Science and Human Services
- Computer and Information Technology
- Education
- Science, Technology, Engineering and Mathematics


## Programs of Study:

- Computer Assisted Design and Drafting
- Computer Information Systems
- Desktop Support
- Early Childhood Education
- Engineering
- Family Studies
- Networking and Security
- Nutrition and Dietetics


## Degrees and Certificates:

- Associate in Arts, Emphasis in Early Childhood Education
- Associate in Arts, Emphasis in Educational Studies Early Childhood
- Associate in Arts, Emphasis in Family Life Education
- Associate in Arts, Emphasis in Nutritional Science
- Associate in Science, Emphasis in Engineering
- Amazon Web Services Cloud Associate (CCL)
- Amazon Web Services Cloud Practitioner (CCL)
- Amazon Web Services Cloud Specialist (CCL)
- Architectural and Civil CAD Technology (AAS)
- CAD Application (CCL)
- CAD Fundamentals (CCL)
- Child and Family Organizations Management and Administration (CCL)
- Cisco Certified Network Professional: Enterprise (CCL)
- Cisco Certified Network Professional: Enterprise Advanced Routing and Services (CCL)
- Cisco Certified Network Professional: Enterprise Core (CCL)
- Cisco Network Administration and Security (CCL)
- Cisco Network Administration: CCNA (CCL)
- Cisco Network Administration: CCNP (CCL)
- Computer System Configuration and Support (CCL)
- Computer System Configuration and Support, Network (CCL)
- Computer System Configuration and Support, Security (CCL)
- Early Childhood Education (AAS)
- Early Childhood Education (CCL)
- Engineering Technology (AAS)
- Foundations of Early Childhood Education (CCL)
- Infant and Toddler Development (CCL)


## Course Subjects:

- AEN Alternative Energy
- BLT Building Safety and Construction Technology
- BME Biomedical Equipment Technology
- CAD Computer-Aided Drafting
- CET Civil Engineering Technology
- CFS Child/Family Studies
- CLD Cloud Computing
- CNT Cisco Network Technology
- CON Construction
- CUL Culinary
- DFT Drafting Technology
- ECE Engineering Science
- ECH Early Childhood Education
- EEC Endorsement for Early Childhood
- EED Early Education
- EEE Electrical Engineering
- EEP Early education Professions
- ELC Electricity
- ELE Electronic
- ELT Electronics Technology
- FCS Family and Consumer Science
- FON Food and Nutrition
- GTC General Technology
- INT Interior Design
- ITD Infant/Toddler Development
- MIT Manufacturing Industrial Technology
- NET Networking Technology
- PPT Power Plant Technology
- WLD Welding Technology


## Programs of Study

## Accounting, Banking, and Finance

Department: Business and Information Technology
Contact: Scott Stroher
Phone: (623) 845-3453
Email: scott.stroher@gccaz.edu
The success of small and large businesses relies heavily on the expertise of finance and accounting professionals - they play an important role in tracking businesses' income and expenses and applying current finance and accounting industry practices, principles, laws, and security to evaluate the performance of businesses and make informed financial decisions to help prepare businesses to achieve long-term business and financial goals.

The Accounting, Banking, and Finance program will teach you the necessary skills to help get your foot in the door in a variety of accounting or finance career paths, including accounting in the public, private, and governmental sectors, forensic accounting, or as a financial analyst or financial manager.

Make it happen - enroll in the Accounting, Banking, and Finance program today!

## Associate Degrees and University Transfer

Accounting

## Certificates

## Accounting

Enrolled Agent
Securities Industry Essentials

## Fast Track Certificates

Certified Bookkeeping
Security Industry Essentials: Pre-licensure

## Why You Should Take Accounting

Accountants function in different ways. They offer their services to the public on a fee basis (public accounting), employed by individual profit or nonprofit organizations (private accounting), or work for governmental units (governmental accounting). Accountants provide financial information about an organization to its owners, managers, and creditors, as well as to appropriate governmental authorities. They also design, install, manage, and maintain information systems which produce this important information. There is considerable demand for accountants and demand should increase. Pay is relatively high, and the accounting field offers many opportunities for professional growth and advancement.

## Students take Accounting courses to:

- Prepare for employment. An Associate in Applied Science (AAS) degree program is available to prepare students for immediate employment as a paraprofessional accountant or bookkeeper. There are also two Certificates of Completion (CCL) available. One is the Accounting CCL, which is designed as a stepping stone for the AAS degree. The other is the Enrolled Agent CCL which is designed to prepare students for a career as a tax professional.
- Prepare for a major in accounting at a four-year institution. Students may complete most or all of their lower division requirements at Glendale Community College. Students should follow the Associate in Business, General Requirements (ABUSGR) degree program and consult with a Business Department Advisor to plan for transfer.
- Prepare for virtually all other business majors and careers. Accounting coursework is required in most business major curriculum because knowledge of accounting is fundamental for success in business. Students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner.


## Administration of Justice

Department: Public Safety Sciences
Contact: Genea Stephens
Phone: (623) 845-3951
Email: genea.stephens@gccaz.edu
If you've always been interested in the criminal justice system, criminology, or forensic science, consider enrolling in the Administration of Justice program. This program will prepare you for a career in crime scene investigation, corrections, law enforcement, homeland security, and public safety.

The program offers a comprehensive education in the study of the criminal justice process, including law enforcement, courts, probation, parole, security, and criminology. You will also learn community policing, evidence technology, how the principles of criminal justice laws have evolved, and so much more.

Make it happen today with the Administration of Justice Program!

## Associate Degrees and University Transfer

Administration of Justice Studies
Associate in Arts, Emphasis in Criminal Justice

Forensic Science
Law Enforcement Training

## Certificates

Crime Scene Investigation
Fingerprint Identification and Photography
Homeland Security
Law Enforcement Investigation
Law Enforcement Training Academy
Leadership in Public Safety Organizations

## Fast Track Certificates

Administration of Justice
Corrections
Law Enforcement
Legal Studies
Victimology

## Why You Should Take Administration of Justice

Administration of Justice (AJS) courses provide information for personal interest and related careers, but are designed primarily for those interested in careers in law enforcement and related fields. Students take these courses to:

- Prepare for employment: An Associate in Applied Science (AAS) degree and certificate programs are available. Police officers and detectives are responsible for protecting life and property, enforcing laws, preventing and investigating crimes, and apprehending criminals. Officers working in small communities have many duties, while officers employed by large police departments are usually assigned to specific types of duty such as traffic, narcotics, robbery, or homicide. Those assigned to patrol a regularly-assigned area, work alone or in pairs. Related law enforcement careers are in security, probation, corrections, etc.
- Enhance employment: The AJS290 seminar series provides specialized training for those in law enforcement desiring to enhance their skills. These seminars are available on a limited basis.
- Prepare for related fields: Students in other fields may well find courses such as AJS101 or AJS225 of interest.
- For personal interest: Those seeking training in the safe and ethical use of firearms may enroll in any one of the following: AJS151, AJS153, and AJS154; or in all of them.


## Aerospace Studies

Contact: Arizona State University (ASU), Air Force Reserve
Officer Training Corps (AFROTC)
Phone: (480) 965-3181
Email: det25@asu.edu

The Aerospace Studies (AES) curriculum consists of the General Military Course (GMC) for freshmen and sophomores, and the Professional Officer Course (POC) for juniors and seniors. Through an arrangement with Arizona State University (ASU) at Tempe, students at Glendale Community College can take the GMC at ASU. Upon receiving a four-year bachelor's degree and completion of the POC at any university offering Air Force Reserve Officer Training Corps (AFROTC), the student will receive a commission as a Second Lieutenant in the Air Force or Space Force.

A formal application is not required for students entering the GMC. Students register for AFROTC at the same time and in the same manner as other courses. During the first two years, students enrolled in the GMC will take three to four total courses for AFROTC per semester, depending upon if the student is a three-year or four-year cadet. AFROTC students not on AFROTC scholarship incur no military obligation.

Students apply for the POC prior to their sophomore year. Those students accepted will attend a three-week field training encampment at an Air Force Base between their sophomore and junior years. They must complete their AFROTC requirements at a university offering the POC program.

AFROTC offers scholarships to outstanding young men and women on a nationwide competitive basis. Scholarships cover full college tuition as well as books, fees, and a monthly tax-free allowance ranging from $\$ 350$ to $\$ 500$. These scholarships are highly competitive and are not guaranteed as part of the program.

## Anthropology

Department: Social Sciences
Contact: Dean Wheeler
Phone: (623) 845-3903
Email: dean.wheeler@gccaz.edu
Anthropology is the study of humankind, seeking to understand who we are. This broad discipline includes the study of cultures around the world, remains of past cultures, and the biology of humans and other primates. This knowledge of how we are similar across the world yet investigating the differences among vibrant cultures is critical to studying and helping solve many of the global issues confronting us today. If this area of study interests you, consider enrolling in the Anthropology program.

Students of the Anthropology program develop critical thinking and problem-solving skills that are required in professions where you examine human data, build research partnerships, provide health services, and work across various disciplines. Upon completing this program, you will be able to bring awareness of human culture, biology, and history to tackle complex issues facing the world today. These in-demand skills
are highly valued by employers across a variety of sectors, including government, health and human services, private businesses, cultural resource management, museums, universities, and independent research institutes.

Bring your curiosity about what it means to be human and enroll in the Anthropology program today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Anthropology

## Why You Should Take Anthropology

Anthropology courses examine the origins, cultures, biology, and social behaviors of human beings in both the past and the present. Students take these courses:

- For personal interest: ASB102 emphasizes different cultures around the world, while ASM104 focuses on human origins and variation. ASB202 looks at the relationships of different groups in the U.S., past and present. ASB214 discusses religions from around the world. ASB222, ASB223 and ASB230 introduce students to the methods and discoveries of archaeology. ASB235 covers past Native American culture in the Southwest. All courses transfer to Arizona universities.
- To meet General Education Requirements:

Anthropology courses may also be used to meet the following requirements for any associate degree and will also transfer:

- Humanities: ASB211, ASB220, ASB222, ASB223
- Social-Behavioral Sciences: ASB102, ASB211, ASB214, ASB222, ASB223, ASB230, ASB235, ASM104
- Natural Sciences: ASB231, ASM104
- Global Awareness: ASB102, ASB211, ASB214, ASB222, ASB223
- Historical Awareness: ASB202, ASB222, ASB223, ASB235, ASM104
- Cultural Diversity: ASB202, ASB235
- To prepare for a major at Arizona State University
(ASU)-Main: Those intending to transfer as anthropology majors should complete ASM104, ASB102, and either ASB222 or ASB223. Consult with Dr. Dean Wheeler, Social Sciences Department, in selecting additional anthropology courses for transfer to ASU-Main.


## Astronomy

Department: Physical Sciences
Contact: Sara Watt
Phone: (623) 845-3386
Email: sara.watt@gccaz.edu

Humans are made to explore. As a student of the Astronomy program, you will get to explore space - from our sister planets in the solar system to the farthest reaches of the universe. Our experienced instructors will teach you where aliens might exist in our galaxy and how to actively search for them today. You'll study our current generation of space probes and how stars are created, live their lives and die, then give birth to the next generation of stars. You will also study black holes - where space and time itself is twisted and warped. As part of the Astronomy program, you will gain hands-on experience using telescopes and computer software to learn the actual techniques used to discover all of these things.

The Astronomy program will provide the necessary foundation to succeed in careers in the life, physical, environmental, and social sciences and related teaching positions.

You could be a part of what you've only dreamed about in science fiction. Join the Astronomy program today and discover the explorer in you.

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Astronomy

## Automotive Service

Department: Automotive Technology
Contact: Lyle Clark
Phone: (623) 845-4545
Email: Iyle.clark@gccaz.edu
Constant increases in the number of vehicles on the road as well as their increasing complexity promises a steady stream of new career openings within the automotive service industry both locally and nationally.

Mobility within the automotive service industry is almost limitless. The experienced technician who demonstrates quality workmanship, willingness to learn, organizational skills, reliability, and good communication skills will find opportunities to move into other jobs within the industry such as management, sales, field service, business ownership, or teaching.

Automobile technicians diagnose, repair, and perform maintenance operations on cars, trucks, buses, and other motor vehicles. The most critical attributes of an automotive technician are the ability to accurately diagnose the causes of malfunctions and to demonstrate quality workmanship in making repairs. Thorough knowledge and understanding of the vehicle and component being serviced, combined with good testing and service skills, ensures fast and efficient work.

If you're ready to pursue a career as an auto mechanic, make it happen with the Automotive Service program today!

Do you have engine oil pumping through your veins and are fascinated by the intricacies of engines and other vehicle systems? If so, a career as an auto mechanic could be your calling.

Our Automotive Service program will train you for a career in automotive repair. We offer certifications in many mechanical areas and general maintenance. At some of the Maricopa Community Colleges, you may also learn to be a Caterpillar technician, specializing in heavy equipment maintenance.

Instructors with real-world experience will help you develop excellent diagnostic, maintenance, and repair skills. The program will prepare you to take the national ASE Certification Tests.

If you're ready to pursue a career as an auto mechanic, make it happen with the Automotive Service program today!

## Associate Degrees and University Transfer

Automotive Service

## Certificates

Automotive Engine Management and Repair
Automotive Maintenance and Light Repair
Automotive Service

## Fast Track Certificates

Automotive Automatic Transmission and Transaxle
Automotive Brake Systems
Automotive Chassis
Automotive Drive Train
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems
Automotive Electronic/Electrical Systems
Automotive Engine Repair
Automotive Engine and Operations Management
Automotive Heating, Ventilation and Air Conditioning Systems
Automotive Manual Drive Train and Axles
Automotive Steering and Suspension

## Behavioral Health Sciences

Department: Counseling
Contact: Dr. William Beverly
Phone: (602) 828-8777
Email: william.beverly@gccaz.edu
Behavioral Sciences is designed to provide students with a comprehensive study of human behavior and prepare them to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, addictions and substance use, trauma, developmental disabilities, comorbid medical conditions, and challenging behaviors. The Behavioral Health Sciences curriculum provides a strong foundation for students
who plan to pursue advanced degrees in mental health, social services, or a related field.

A Behavioral Health Sciences (BHS) degree and certificate provides students with the knowledge and skills to work in the field while they continue higher-level education. Our transfer partnerships with state and private universities allow BHS students to transfer 67-90 credits towards a bachelor's degree in:

- Behavioral Health Sciences
- Counseling
- Human Services
- Psychology
- Sociology
- Social work
- Substance abuse counseling
- Technical Education

Industry certifications offered in the BHS program include:

- BHS150: Mental Health First Aid (National Council for Behavioral Health)
- BHS155:
- Certified Psychological and Emotional Resilience Professional (International Trauma Institute)
- Approved Distance Learning (13.5 CEU hours) by The Arizona Peace Officer Standards and Training Board (AzPOST.gov)
- BHS175: Certified Trauma Support Specialist (Trauma Institute International)
- BHS190: Nonviolent Crisis Intervention (Crisis

Prevention Institute)

- BHS230:
- Applied Suicide Intervention Skills Training (LivingWorks)
- safeTALK (Living Works)
- BHS235: Psychological First Aid (The National Child Traumatic Stress Network)

Upon completion of an associate or bachelor's degree, students may pursue a career as a(n):

- Applied Behavior Analyst (ABA) Therapist
- Assertive Community Treatment (ACT) Specialist
- Behavior Coach
- Behavior Analyst
- Behavioral Health Technician
- Behavior Management Specialist
- Birth to five Mental Health Specialist
- Child Development Specialist
- Care Manager/Case Manager
- Case Aid
- Child Care Worker/Child Welfare
- Crisis Specialist
- Crisis Transition Navigator
- Crisis Hotline
- Direct Care Staff
- Family Advocate
- Family Support Partner
- High Needs Case Management
- Human Services Worker
- Independent Living Specialist
- Mental Health Intake Specialist
- Mental Health Provider
- Parent Aid
- Parent Support Partner
- Peer Support Specialist
- Psychiatric Aide/Attendant/Technician
- Psychological Stress Evaluator
- Psychosocial Rehabilitation Specialist
- Recovery Support Specialist
- Rehabilitation Specialist
- Respite Care Worker
- Social Service Aid
- Social Work
- Substance Abuse Counselor
- Youth Advocate
- Youth Mentor
- Victims' Advocate

Enroll today and begin making a difference!

## Associate Degrees and University Transfer

Behavioral Sciences

## Certificates

Advanced Behavioral Sciences
Foundations of Behavioral Sciences

## Biochemistry

Department: Chemistry
Contact: Debbie Leedy, Ph.D.
Phone: (623) 845-4770
Email: debbie.leedy@gccaz.edu

Biochemists and biophysicists play a key role in developing new medicines to fight diseases such as cancer. Biochemists and biophysicists study the chemical and physical principles of living things and of biological processes, such as cell development, growth, heredity, and disease.

Biochemists and biophysicists play a key role in developing new medicines to fight diseases such as cancer. Biochemists and biophysicists study the chemical and physical principles of living things and of biological processes, such as cell development, growth, heredity, and disease.

You may develop skills in:

- Analysis and problem solving
- Independent thinking
- Working in a laboratory
- Numerical and data analysis
- Verbal communication
- Teamwork and communication
- Information technology
- Scientific integrity and ethics
- Writing with scientific rigor
- Creative thinking
- Commercial awareness and/or
- Entrepreneurship

Biochemistry is integral to many fields:

- Medicine
- Veterinary medicine
- Dentistry
- Physician assistant
- Biotechnology
- Biofuel development
- Nutrition
- Pharmaceuticals
- Forensics

Make a quantum leap into your future today and sign up!

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Biochemistry

## Biology/Biological Sciences

Department: Biology
Contact: Dr. Karen Conzelman
Phone: (623) 845-3612
Email: karen.ann.conzelman@gccaz.edu

The primary focus of biology is the study of life. The field is a broad, diverse discipline that investigates the mysteries of genetics, cell and marine biology, microbiology, neurosciences, physiology, plant sciences, immunology, ecology, and biotechnology. It includes all living organisms from the smallest bacterium to the largest and most complex plants and animals. The critical role that scientists play in helping us to better understand natural phenomena like climate change and disease means that it is as important as ever for everyone to have a basic knowledge of biology and the process of scientific inquiry. It is only with this foundation that we can evaluate the credibility of information, understand new technology and its impact on all aspects of our society, and make personal choices that best serve us now and in the future.

Students typically take courses in the biological sciences to:

- Provide the needed foundation for careers in fields such as nursing, medicine, health, human services, nutrition, physical education, agriculture, and forestry. Pre-Nursing students must complete several prerequisite biology courses before applying for admission to the Nursing Program. Similarly, as described in the Pre-Health section of this catalog, biology is one of many science courses required for admission to other professional programs in the health fields (such as, Pre-Med, Pre-Dental, PrePharmacy).
- Meet requirements for a major in biology (or related field) at a four-year institution. Students can complete the first half of their bachelor's degree in Biology at Glendale Community College (GCC). Careful planning can enable students to transfer seamlessly to the university. The guided pathway leading to an Associate in Science, Emphasis in Biological Sciences provides an academic planning framework for students intending to transfer to an Arizona university. This program of study also aligns with the admission requirements of professional programs in many health-related fields like medicine, dentistry, and pharmacy. For additional information, see the Pre-Health information provided elsewhere in this catalog.
- Prepare for careers in the field of biotechnology. GCC offers an Associate in Applied Sciences (AAS) degree in Biotechnology and Molecular Biosciences that is aligned with a unique partnership with Arizona State University (ASU) West campus. This partnership provides students interested in the field of biotechnology and molecular biology research the opportunity to seamlessly transfer the lab skills-rich courses of our AAS pathway directly into ASU's Bachelor of Applied Science (BAS) degree with a concentration in Cell and Molecular Biology Research. GCC biotechnology students work in the department's state-of-the-art laboratory facility to conduct original research under the mentorship of the program director, the senior lab tech and more advanced classmates. Such authentic scientific experiences are rare for community college students and often lead to presentations at research conferences and/or publications in scientific journals.
- Fulfill a general education requirement in Natural Sciences for their associate and/or bachelor's degree in non-STEM (Science, Technology, Engineering, and Mathematics) majors like business, computer information systems, elementary education, and the arts. BIO101, BIO105, and BIO160 are intended primarily for such non-major students, and all have

Arizona General Education Curriculum (AGEC) [SQ/SG] designations.

Begin the journey to your future today with the Biological Sciences program!

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Biological Sciences Biotechnology and Molecular Biosciences

## Business

Department: Business and Information Technology
Contact: Scott Stroher
Phone: (623) 845-3453
Email: scott.stroher@gccaz.edu
Students who earn their business degree have more marketable skill sets, more competitive earning potential, and more flexibility when it comes to their career options. If you're interested in starting a career in accounting, business administration, business data analytics, entrepreneurship, finance, marketing, retail management, supply chain management, or as an administrative assistant, consider enrolling in the Business program today to work your way towards an Associate's in Business degree.

What are you waiting for? Make it happen today with our Business program!

## Associate Degrees and University Transfer

Administrative Professional
Associate in Business, General Requirements
Associate in Business, Special Requirements
General Business

## Certificates

Administrative Professional
General Business

## Why Should I Obtain an Associate in Business degree?

This two-year degree program leads to numerous pathways for preparing students to be workforce professionals. It provides a strong foundation that can be applied to jobs in accounting, management, administrative and executive support, administration, leadership, marketing, entrepreneurial studies, retail management, supply chain management, business data analytics, human resources, training and development and more. In addition, this associate degree is an excellent two-year start that transfers easily into university to obtain a bachelor's degree in the career paths listed.

The foundations learned while obtaining this degree can prepare students to be workforce-ready, putting them ahead of competing candidates who do not have the education and skills learned through the program.

The Business program's curriculum is designed to provide business training for a range of entry-level jobs. You will receive a comprehensive education while learning the fundamentals of business concepts, accounting, computer principles, and legal issues related to business. You will also receive training on essential technological skills, business communications, public relations, records management, and report preparation.

## University Transfer

The Associate in Business, General Requirements (ABUS-GR) degree is designed for students who plan to transfer to fouryear colleges and universities. In general, the components of this degree meet requirements for the various business majors at Arizona's public universities except Business Computer Information Systems (CIS); Business CIS majors should follow the ABUS-SR pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. In most cases, courses used to satisfy the ABUS-GR will apply to university graduation requirements of the university major for which the ABUS-GR was designed.

Note: Students transferring to the University of Arizona or Northern Arizona University must take GBS220 as their Quantitative Methods requirements in order to transfer. Students transferring to Arizona State University must take MAT217 and MAT218 for their Quantitative Methods requirement in order to transfer.

The Associate in Business, Special Requirements (ABUS-SR) degree is designed for students who plan to transfer to fouryear colleges and universities. In general, the components of this degree meet requirements for Business CIS majors at Arizona's public universities. Other Business majors should follow the ABUS-GR pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. In most cases, courses used to satisfy the ABUS-SR will apply to university graduation requirements of the university major for which the ABUS-SR was designed.

## Business and Organizational Management

Department: Business and Information Technology
Contact: Kendra Swensen
Phone: (623) 845-3947
Email: kerndra.swensen@gccaz.edu

It's a known fact that students who earn their business degree have a greater advantage over those without one. They have more marketable skill sets, including better management and leadership skills, leading to more career options and greater earning potential. Upon completing this program, you will be
qualified for several entry-level jobs in business and retail management, human resources, and a variety of leadership roles.

The Business program's curriculum is designed to help you develop leadership and communication skills that can be applied across several professions. Our experienced instructors will teach you supervision techniques, how to lead an organization, manage the day-to-day business operations and challenges, understand strategies for conflict negotiation, and handle human resource issues. You will also learn how to identify business opportunities and make informed decisions in complex situations. The critical thinking, problem-solving, and communication skills you acquire from this program are life skills you can carry across any profession!

What are you waiting for? Make it happen today with the Business and Organizational Management program.

## Associate Degrees and University Transfer

Management
Organizational Management
Retail Management

## Certificates

Business Administration Fastrack
Human Resources Management
Management
Organizational Leadership
Retail Management

## Business and Personal Computers

Department: Business and Information Technology
Contact: Kara Kujawa
Phone: (623) 845-3997
Email: kara.kujawa@gccaz.edu

These eCourses and traditional structured courses designed to develop skills in using IBM and Macintosh microcomputers and their related software. Students take these courses:

- For personal development of microcomputer skills.

Beginning courses are available, such as BPC101 Introduction to Computers, BPC110 Computer Usage and Applications, and BPC111AA Computer Keyboarding I and BPC111AB Computer Keyboarding II. Students may wish to continue in more advanced courses.

- To prepare for or enhance employment. Both an Associate in Applied Science degree program and a Certificate of Completion (CCL) program are available. With proper choices, a student who completes a CCL may apply all those courses toward the associate degree program. For either program, students should
consult with a Department Advisor to plan their academic schedules.

Required courses may not be available every semester and degree-seeking or transfer students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner.

## Chemistry

## Department: Chemistry

Contact: Debbie Leedy, Ph.D.
Phone: (623) 845-4770
Email: debbie.leedy@gccaz.edu

Chemists study the behavior of substances, and create new or improved materials for special purposes: faster semiconductor circuits, new drugs, and new personal care products to name a few. They use their knowledge to study the complex chemistry of living systems vital to research efforts in the field of medicine. They also analyze samples for trace elements in fields such as forensic science, medical labs, and environmental chemistry. And sometimes, they engage in pure research that just might lead to an unexpected discovery!

Students studying chemistry often find employment in a variety of related fields: medicine, pharmacy, industrial safety, engineering, geology, environmental science, and biology; as well as in education or the traditional chemistry lab. There is a continuing demand for BS, MS, and PhD chemists in business, government, and industry. Although the Phoenix area has some positions in medical labs, government labs, and the semiconductor industry; opportunities for local employment are somewhat limited. The national picture is more encouraging.

## Associate Degrees and University Transfer <br> Associate in Science, Emphasis in Chemistry

Transfer Program: Students intending to major in chemistry should regard this program as a guide for preparing to transfer to a baccalaureate degree granting institution. The program is designed to generally parallel the first two years of coursework required by most four-year institutions. For individual requirements at specific institutions, the student should refer to the Chemistry Department website or consult with a Chemistry Department Advisor.

Transferability: All 100-level and above courses transfer.

Students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. Required courses may not be available every semester. Due to limited course
offerings, degree seeking students may find it necessary to attend both day and evening classes.

Special Skill Levels Needed: College-level reading and writing skills. Intermediate Algebra (MAT120 or MAT122) or the equivalent of four years of high school math.

Departmental Recommendations for Chemistry Majors:

+ CHM150 General Chemistry I
OR
+ CHM151 General Chemistry I AND
+ CHM151LL General Chemistry I Laboratory
OR
+ CHM150AA General Chemistry I with Lab
OR
+ CHM151AA General Chemistry I with Lab
+ CHM152 General Chemistry II AND
+ CHM152LL General Chemistry II Laboratory
OR
+ CHM152AA General Chemistry II
+ CHM235 General Organic Chemistry I AND
+ CHM235LL General Organic Chemistry I Laboratory OR
+ CHM235AA General Organic Chemistry I with Lab
+ CHM236 General Organic Chemistry II AND
+ CHM236LL General Organic Chemistry II Laboratory OR
+ CHM236AA General Organic Chemistry IIA with Lab


## Other Recommendations:

+ MAT220 Calculus with Analytic Geometry I
+ MAT230 Calculus with Analytic Geometry II
+ MAT241 Calculus with Analytic Geometry III
+ MAT262 Differential Equations
+ PHY115* University Physics I
+ PHY116* University Physics II
*Students should take PHY111 and PHY112, General Physics, if transferring to the University of Arizona.

General Education Recommendations: Individual universities may require foreign language. Others accept computer literacy to fulfill the language requirement. In any case, computer courses are strongly recommended.

## Communication

Department: Communication and World Languages
Contact: Kim Feld, Ph.D.
Phone: (623) 845-4818
Email: k.feld@gccaz.edu

Thoughtful and clear communication skills are one of the most valued assets an employee can offer their organization. The career possibilities are endless - those who study communication can pursue careers in public relations, advertising, journalism, law, and business, to name just a few. The Communication program can help you get there.

Focusing on the dynamic blend of theory and practical experience, the program will provide you with a solid foundation of a variety of communication contexts, including interpersonal, small group, intercultural, organizational, public, and professional speaking. You will be prepared to think critically, problem-solve, and make informed decisions in various scenarios.

After graduating from the program, you will be well-equipped to go to the next level and transfer to a university to achieve your bachelor's or master's degree in communication. Sign up today to jump-start your future.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Communication

## Certificates

Communication Competence in the Workplace
Communication Skills for Non-Native English Speakers
Oral Communication Fluency for Non-Native English Speakers

## Why You Should Take Communication at GCC

The objectives of the Communication and World Languages Department are:

- to provide individual courses as electives in other programs;
- to satisfy requirements prescribed by programs in other areas;
- to provide low division requirements for the NAU@GCC Bachelor of Science in Communication Studies;
- to provide lower-division courses for students who will transfer to other Arizona university Communication programs; and to provide second language learners opportunity to achieve oral communication fluency.

Our courses are organized to meet practical needs of students, especially those individuals planning careers in the Human Service area. We encourage our students to participate in a very active speech and debate program as well as various other student activities. Glendale Community College's (GCC's) Communication and World Languages Department is affiliated with the National Communication Association (NCA), Western States Communication Association, and is headquarters for the Southwest Communication Association (SWCA).

## Bachelor of Science (BS) in Communication Studies with an Emphasis in Organizational Communication (NAU@GCC)

That's correct, students may now receive their bachelor's degree without ever leaving GCC's campus. The Bachelor of Science (BS) Degree in Communication Studies is a joint offering between GCC and Northern Arizona University (NAU). Upon completion of the program, students receive their bachelor's degree from NAU. The BS degree in Communication Studies with an Emphasis in Organization Communication provides a better understanding of how organizations work and helps students develop effective leadership skills by optimizing their communication. The program explores how communication takes place in relationships, within national and international organizations, in public forums, and between cultures. It is grounded in both rhetorical and experimental approaches to the study of human communication. This innovative program gives students the opportunity to study a common core of communication courses, to design part of their program to achieve individual goals, and to take part in a communication apprenticeship experience. Faculty and students work together to integrate the classroom, research, and service with the goal of improving communicative interactions. A recent national survey of college graduates with majors or minors in Communication revealed that graduates hold positions in education, law, the ministry, sales and marketing, information services, public relations, advertisement, government, social services, industrial and labor relations, human resources, and fundraising. Other careers in mass communications include radio, TV, and film.

## Communication core: 6 credits

COM100 Introduction to Human Communication COM110 Interpersonal Communication

## Speech communication: 18 credits

Glendale Community College Courses: 9 credits

+ COM207 Introduction to Communication Inquiry
+ COM225 Introduction to Public Speaking
COM230 Small Group Communication
Upper Division NAU Courses taken at GCC: 9 credits CST300W Rhetorical Criticism
CST311 Advanced Presentation Techniques
CST498C Senior Seminar in Speech Communication
Organizational communication emphasis: $\mathbf{2 4}$ credits
Upper Division NAU Courses taken at GCC: 9 credits
CST312 Methods of Interviewing
CST472 Organizational Communication
CST477 Mediation and Conflict Management
Communication Electives taken at GCC: 15 credits
COM222 Argumentation and Debate (GCC Course)
COM259 Communication in Business and the Professions (GCC
Course)

COM263 Intercultural Communication (GCC Course)
CST321 Nonverbal Communication (NAU Course)
CST351 Interpersonal Communication (NAU Course)
CST361 Persuasion (NAU Course)
CST365 Communication in Contemporary Affairs (NAU Course)
CST408 Fieldwork Experience (NAU Course)
CST424 Gender and Communication (NAU Course)
CST460 Rhetorical Theory (NAU Course)
CST465 American Political Communication (NAU Course)
CST475 Health Communication (NAU Course)

## Extended major: 12 credits

Students are required to take 12 hours of GCC courses in a concentrated area of study. Students should work in conjunction with the NAU advisor to determine these courses.

## Bachelor of Arts (BA)/Bachelor of Science (BS) Communication Studies Transfer Guide

If you plan to complete your Communication degree at another Arizona institution, our department can help you. The Communication and World Languages Department's selection of Maricopa Community College coursework meets the Arizona General Education Curriculum (AGEC-A) as modified by MCCCD and lower-division program requirements for a bachelor's degree in Communication, Speech Communication, and Communication Studies at any of Arizona's universities. Depending on the university to which you plan to transfer, the following courses may be recommended:

COM100 Introduction to Human Communication COM110 Interpersonal Communication

+ COM207 Introduction to Communication Inquiry
+ COM222 Argumentation
+ COM225 Public Speaking
COM230 Small Group Communication
+ COM241 Oral Interpretation of Literature
COM250 Introduction to Organizational Communication
+ COM259 Communication in Business and Professions* COM263 Intercultural Communication
*For non-communication majors. Meets the business requirement for accounting majors, media arts, music business, dance, and other disciplines.

Consult your Academic Advisor to ensure compliance. Students are responsible for checking all requirements and regulations at their transferring institution.

## English Language Learner Course Concentration

The Communication and World Languages Department offers a series of courses for speakers of other languages. Through these offerings and an informal laboratory, international students can further their oral communication skills and achieve oral fluency. The aim of the program is that of achieving communication competence. Please consult the

Communication and World Languages Department for more information concerning testing, course offerings, and available certificates.

## Communication Sciences and Disorders

Department: Communication and World Languages
Contact: Kim Feld, Ph.D.
Phone: (623) 845-4818
Email: k.feld@gccaz.edu

Do you want to make a significant difference in people's lives and help give them a voice? In a world where communication is key to being successful, personally and professionally, it's more important than ever to be able to effectively communicate and advocate for yourself. Speech Language Pathologists (SLP) help people of all ages, by preventing, assessing, diagnosing, and treating speech, language, social communication, cognitivecommunication, and swallowing disorders in children and adults. Speech Language Pathology Assistants (SLPA) perform tasks prescribed, directed, and supervised by an ASHA-certified SLP. Enroll in our Communication Sciences and Disorders program today to begin making a difference in the lives of others.

Our program prepares students for a career as a Speech Language Pathology Assistant. It includes a comprehensive curriculum, observation and clinical experience working with a variety of individuals with communication disorders across the lifespan. In addition to practical coursework, this program provides students with the opportunity to gain practical experience by working with clients under the direction and supervision of an ASHA-certified Speech Language Pathologist.

Start making a difference in people's lives. Enroll in a Communication Sciences and Disorders program today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Speech and Hearing Science

## Why Glendale Community College?

You can take most of your coursework for this area of emphasis right here at GCC; however, it is important to note that there are approximately 6-9 credits of Speech Language Pathology (SLP) coursework that is only available at our sister college, Estrella Mountain Community College (EMCC). If you are interested in pursuing this area of emphasis, you will need to enroll for SLP courses at EMCC. Online course options are available.

## Computer Assisted Design and Drafting

Department: Technology and Consumer Sciences
Contact: Glenda Chagolla
Phone: (623) 845-3699
Email: glenda.chagolla@gccaz.edu

Meet us at the intersection of technology, engineering, and art with the Computer Assisted Design (CAD) and Drafting program. This program is great for students who love engineering, art, drawing, and using computers. CAD operators create technical drawings used by architects, civil engineers, surveyors, Landscape Architects, or related fields. A CAD operator is also an essential role in civil engineering, where they prepare drawings that are used in planning our infrastructure, like highways, pipelines, or bridges. The goal of this program is to broaden design exposure and CAD technology skills.

This program emphasizes current technological needs in the drafting industry and is designed to prepare students for an entry-level career as a CAD operator working for architects, civil engineering, or other professionals in related fields. This program will teach you about 2D and 3D computer-aided drafting and design and models utilizing industry-standard CAD, Revit, Civil 3D and BIM software. You will learn how to produce sketches, layouts, drawings, and various views that are compliant with standard architectural and civil industry practices.

Join the Computer Assisted Design and Drafting program today and make it happen!

## Associate Degrees and University Transfer

Architectural and Civil CAD Technology

## Certificates

CAD Application

## Fast Track Certificates

CAD Fundamentals

## Computer Information Systems

Department: Business and Information Technology
Contact: Bill Stewart (Information Technology)
Phone: (623) 845-3250
Email: bil.stewart@gccaz.edu
Department: Business and Information Technology
Contact: Kara Kujawa (Microsoft Office)
Phone: (623) 845-3997
Email: kara.kujawa@gccaz.edu
Department: Technology and Consumer Sciences
Contact: Andrea Schauer (Amazon Web Services)
Phone: (623) 845-3502
Email: andrea.schauer@gccaz.edu
Do you want a career that lives at the intersection of technology and business? Successful organizations rely on integrated technological solutions to carry out their business operations, interact with both suppliers and customers, and
excel in the marketplace. In the Computer Information Systems (CIS) program, you'll learn how to design, develop, manage, and maintain sophisticated technologies that are used everywhere-from local to global organizations.

The CIS program's comprehensive curriculum will equip you with the knowledge and skills to succeed in technology-related roles, such as a data scientist, help desk technician, technology trainer, and more. This program will also prepare you for industry-recognized certification exams, including the Oracle Corporation OCA, AWS Cloud Practitioner certifications, and the ComptIA A+.

Make it happen! Enroll today to start your journey.

## Associate Degrees and University Transfer

Associate in Business, Special Requirements Information Technology

## Certificates

Amazon Web Services Cloud Associate
Amazon Web Services Cloud Specialist
Microsoft Office Professional
Microsoft Office Specialist

## Fast Track Certificates

Amazon Web Services Cloud Practitioner

## Computer Science

Department: Mathematics and Computer Science
Contact: Dr. Ghaith Salman
Phone: (623) 845-3261
Email: salman@gccaz.edu
The computer science industry is a fast-paced, constantly evolving environment where creative problem-solving and attention to detail are as important as the computer training you receive - but to get your foot in the door of this exciting career, you'll need the essential computer training first. Start today and join the Computer Science program!

This program will teach you how to write in a variety of programming languages and computing environments. You will also learn mathematical foundations, algorithmic principles, and computer science theory - necessary skills for building complex software systems. We'll teach you how to analyze a problem and use critical thinking to identify the computing requirements needed to solve the issue.

This is more than a computer course - this valuable computer training program is your key to an exciting career. The knowledge and skills you take away from the Computer Science program will lay a solid foundation down for a fruitful career.

What are you waiting for? Make it happen today!

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Computer Science

## Why You Should Take Computer Science

Computer Science courses develop skills in designing, writing, and modifying computer programs to accomplish a wide variety of tasks in all areas of business and industry. Students take these courses:

- To prepare for a major at a four-year institution. A typical Bachelor of Science graduate in Computer Science has the programming skills to develop operating systems and programming languages, as well as write programs for almost all areas of industry. Computer Science majors also understand the software engineering process and may use this knowledge to eventually manage large projects. The college offers coursework which parallels the first two years of a bachelor degree in Computer Science or Computer Systems Engineering at Arizona State University (ASU).
- As background for other careers. CSC100AB Introduction to Computer Science ( $\mathrm{C}++$ ) is recommended for those who are going into an Engineering discipline. CSC180 Computer Literacy transfers to ASU as CSE180 and is recommended as an introductory computer class for scientific, engineering, and education majors. CSC283 Bioinformatics and Scientific Computing is designed for Biotech majors and those considering a career in Bioinformatics. Both CSC180 and CSC283 fulfill the general education CS requirement at ASU.
- To update and improve professional programming
skills. The CSC150, 181, 182, 185, 260, 261, 270, 281, 284 , and 285 are courses in current or emerging technologies and are designed for industry professionals (and students) who wish to update and expand their professional skills in this fast-changing profession.


## Coursework should include:

+ CSC100AB Introduction to Computer Science (C++)
+ CSC110AB Introduction to Computer Science (Java)
+ CSC/EEE120 Digital Design Fundamentals
+ CSC205 Object Oriented Programming and Data Structures
+ CSC/EEE220 Programming for Computer Engineering
+ CSC/EEE230 Computer Organization and Assembly Language
+ CSC/EEE240 Introduction to Different Programming
Languages
+ MAT227 Discrete Mathematical Structures

For Computer Science (CSC) course descriptions and availability, please refer to the Maricopa Find A Class tool.

## Counseling

Department: Counseling
Contact: Paul Romo
Phone: (623) 845-3051
Email: paul.romo@gccaz.edu

As more people seek help in coping with life's difficult situations and the demand for mental health services continues to rise, the need for skilled counselors and psychologists is increasing. If a rewarding career in helping others through counseling or psychology calls to you, enroll in our Counseling program. This program covers the first two years of the fouryear curriculum for students who wish to specialize in counseling or psychology and plan to receive their Bachelors and/or graduate degree.

This program teaches the foundations of counseling - you will learn about theories, career, and lifespan development, as well as ethics and research. Upon graduating from this program, you will be able to transfer to a university to continue your education to earn your bachelor's degree.

Enroll in the Counseling program and make it happen today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Counseling and Applied Psychological Science

First Year Experience (FYE): New, degree-seeking students at Glendale Community College (GCC) should complete FYE101 or FYE103 in their first year to fulfill their graduation requirements. First Year Experience (FYE) courses will help students to clarify their career and educational goals, learn how to maximize focus and motivation, develop effective learning strategies, practice self-care, finance education, and make connections with college resources and support systems. FYE103 has greater depth and breadth and is recommended for students who want to develop the greatest level of college preparedness.

- FYE101 Introduction to College, Career and Personal Success
- FYE103 Exploration of College, Career and Personal Success

Career and Personal Development (CPD): Career and Personal Development (CPD) courses are taught by Master's level and advanced degree counselors who have vast experience in human behavior, career development, student development, and a broad range of social issues and dynamics. CPD160 transfers to the state universities as both a Literacy and Critical Inquiry and a Cultural Awareness. The course will help students to develop intercultural awareness and skills that are valuable socially and as well as career marketable.

- CPD160 Introduction to Multiculturalism


## Creative Writing

Department: English, Reading, Journalism and Creative Writing
Contact: Jeff Baker
Phone: (623) 845-3248
Email: Jeffrey.baker@gccaz.edu
Have you always dreamed of being a published fiction writer? Or are you looking to get a degree and pursue a career as an editor, copywriter, or lyricist? However big your goals are, our Creative Writing program will help you sharpen your creative writing skills and become a strong, confident writer.

By enrolling in the program, you will engage with a community of supportive writers through classes, workshops, and contests that will help you market your work. Program instructors will teach you how to analyze and evaluate aesthetic values, literary styles, and technical elements and theories across multiple genres and you will explore the dynamic relationships among people, cultures, and the physical world. You'll receive guidance from established authors during the creative writing process through problem-solving, experimentation, and inspiration to produce poetry, original fiction and non-fiction work across multiple genres. Upon completing the program, you will have a portfolio worthy of publication.

Begin writing your story today with the Creative Writing program!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in English (Creative Writing)

## Certificates

Creative Writing

## Dance

Department: Performing Arts
Contact: Rebecca Rabideau
Phone: (623) 845-3796
Email: rebecca.rabideau@gccaz.edu
Do you love expressing your emotions through artistic movement? If the artistic outlet that dance offers appeals to you, then you should consider a career in the performing arts industry. We offer two pathways in the Dance program.

If you'd like to pursue a career in dance performance, choreography, teaching, and fitness instruction, consider the AAFA in Dance, which provides the first two years of a four-year curriculum. You'll have the opportunity to become skilled at incorporating kinesthetic and somatic principles of movement into various dance styles, as well as apply artistic elements to your dance like intention, movement quality, connection,
musicality, and so much more! We will teach you how to critically analyze and evaluate choreography, technique, and performance, and provide written and oral feedback.

If you'd like to diversify your dance portfolio, consider the AAS in Dance Performance and Technology, which integrates performance, technology, kinesiology, and real world application into the Dance program. Our goal is to teach you how to survive in the 21st century dance industry with conservatory style dance training coupled with practical skills outside of the studio to support a career in the arts. We provide training in dance theory, technique, performance, dance for camera, and production. You'll also have the opportunity to learn how to edit and create digital music, create marketing materials, and use computer technology for the dance industry.

Make your dreams happen today with the Dance program!

## Associate Degrees and University Transfer

Associate in Arts, Fine Arts, Emphasis in Dance

## Why You Should Take Dance at GCC

The Glendale Community College (GCC) Dance Program is designed to offer the first two years of a traditional dance major and allow the student to transfer with ease into a university program. Emphasis is on technique, performance, and choreography in a pre-professional atmosphere. Courses may be repeated each semester, depending upon the student's skill level.

The GCC resident dance company, Verve Dance Company, is intended for those students who wish an intense program of study and plan to major in dance. Auditions are held the Monday following the Fall and Spring dance concerts. Students are expected to perform at an intermediate or advanced level of skill. See Associate in Arts, Fine Arts, Emphasis in Dance (8312) for specific course requirements.

## Desktop Support

Department: Varies; see Contact for details.
Contact: Martin Bencic (Linux)
Phone: (623) 845-3237
Email: martin.bencic@gccaz.edu
Contact: Andrea Schauer
Phone: (623) 845-3502
Email: andrea.schauer@gccaz.edu
Tech support and IT support are on the front lines of business' and organizations' technology - and responsible for ensuring their hardware, software, and networks are operating at optimal performance. If you are a creative problem-solver who enjoys computers and working with people, consider enrolling in the Desktop Support program to learn the skills that can help
you be competitive in the job market and successful in tech support or IT support.

This hands-on program offers basic IT training in solving today's high-tech problems in desktop computers, printers, mobile devices, networks, popular applications, and operating systems - employing the very latest innovations while preparing you to adapt to changes that are still on the drawing board. You will learn about computer and network technologies, with special emphasis on data networks, network components, and network use. Upon completing this program, you will be prepared to take the CompTIA A+, CompTIA Network+, and CompTIA Linux+ certification exams, paving the path for a career in tech support or IT support.

## Certificates

Desktop Support

## Fast Track Certificates

Computer System Configuration and Support
Computer System Configuration and Support, Linux
Computer System Configuration and Support, Network
Computer System Configuration and Support, Security

## Digital Arts

Department: Art and Humanities
Field of Interest: Visual and Performing Arts
Contact: Casey Farina
Phone: (717) 620-9533
Email: casey.farina@gccaz.edu
With fast-changing technology at the forefront of everything we see and do, the role of visual communication is now more important than ever. Graphic design, animation, digital and print-based media, and illustration professionals use the latest principles, technology, and industry standards in their craft to get their message across. If you're interested in a career in the digital arts or just looking to upgrade your skills, the Digital Arts program will provide you with the essential skills to succeed in the digital world.

Our expert instructors will teach you fundamental design principles, imaging techniques, graphic design, layout, sequential art, typography, creative branding, web and interactive design, video production, and more. You'll receive hands-on experience with the latest multimedia and production devices and industry-standard software. Capstone courses will help you hone your critical, collaborative, and creative skills and provide the work-based experiences that prepare you for entry into the digital arts field.

Join the revolution today - enroll in the Digital Arts program!

Students should consult with an advisor prior to every semester to keep on track with their educational goals. Courses are
offered in sequence with the understanding that every course is not offered every semester.

## Associate Degrees and University Transfer

Animation and Time-Based Media
Digital Media Arts

## Certificates

Animation

## Early Childhood Education

Department: Technology and Consumer Sciences
Contact: Tina LeBaron
Phone: (623) 845-3628
Email: tina.lebaron@gccaz.edu
Early childhood is that unique and dynamic period from birth through age eight. Research shows that the quality of a child's experiences in their first five years helps shape brain development. Early childhood education plays an essential role in supporting the healthy growth and development of children. If you're interested in the well-being of young children, their families, and the community, the Early Childhood Education program might be for you.

The Early Childhood Education program involves studying the complexities of social, emotional, intellectual, and physical development. Our experienced faculty will teach you how to design, implement, and promote the best and most desirable experiences for children in early childhood centers and programs. You will also learn how to develop reciprocal relationships with families and research and advocate for access and equity. We will provide opportunities for you to learn skills, foster dispositions, and establish professional networks to launch or enhance your career.

Enroll in the Early Childhood Education program today and make it happen.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Early Childhood Education
Associate in Arts, Emphasis in Educational Studies Early
Childhood
Early Childhood Education

## Certificates

Early Childhood Education
Foundations of Early Childhood Education

## Fast Track Certificates

Infant and Toddler Development

## Economics

Department: Social Sciences
Contact: Dmytro Zhosan
Phone: (623) 845-3694
Email: dmytro.zhosan@gccaz.edu
Begin learning today's in-demand skills with the Economics program. Geared towards students who are interested in pursuing a liberal arts degree in economics from a university, this program satisfies the first two years of a 4-year curriculum. You can carry the knowledge you gain from this program over to a variety of careers, including budget and market analyst, marketing specialist, lawyer, economist, controller, urban and regional planner, and teacher.

The Economics program takes a theoretical approach in helping you develop critical thinking skills while analyzing and interpreting domestic and global economic data and learning how to make informed decisions in a variety of contexts using marginal analysis. You'll learn about economic models and how to use them to interpret and predict economic outcomes and relationships. By the end of this program, you will be able to proficiently express your economic ideas and arguments, as well as flex your creative problem-solving skills in analyzing and recommending solutions to improve economic outcomes.

NOTE: This program isn't designed for students planning to transfer to a business economics program. If you plan on majoring in economics at a college of business, follow the Associate in Business-General Requirements (ABUS-GR) pathway.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Economics

## Why You Should Take Economics

Economics courses provide an understanding of economic institutions, consumer economic issues, and world economic systems. Students take these courses to:

- Meet general education Social-Behavioral Sciences Requirements. ECN211 or ECN212 are especially recommended.
- Provide needed background for other careers especially in Business and Engineering, Social Work and Journalism. ECN211 or ECN212 are typically recommended or required.
- Prepare for transfer as an economics major at a four-year institution. Degrees in economics may be offered in the liberal arts college, the business college, or both, depending on the institution. Students should consult the catalog of the relevant transfer institution.

Economists research conditions affecting the production, distribution, and consumption of goods and services. They evaluate and forecast business trends, guide monetary policy, and evaluate results of financial, governmental, and business policies. Areas of specialization include labor, fiscal management, agriculture, industry, and social welfare. Related careers are in labor relations, public administration, consulting, foreign diplomacy, and investment counseling.

With the increased reliance on scientific methods of analyzing business trends, forecasting sales, and planning purchases and production operations; employment of economists can be expected to increase. In order to work in the field, a graduate degree is likely to be required.

Recommended courses for potential majors are: ECN211 and ECN212, GBS221, MAT212 or MAT220 and MAT225

A broad background in social sciences, history, and philosophy is strongly recommended.

## Education

Department: Social Sciences
Contact: Heather Merrill
Phone: (623) 845-3768
Email: heather.merrill@gccaz.edu

Do you want to help guide today's youth to becoming tomorrow's leaders? Does the idea of helping children grow academically and socially appeal to you? If so, consider enrolling in the Education program. Upon completing this program, you can pursue a rewarding career as a teacher's aide or instructional assistant. With continued education, you can become a secondary school or special education teacher, or teach in non-profit, community, or civic organizations.

This program will prepare you for a career in education with foundational education courses related to philosophies, policies, attitudes, behaviors, and instruction. Our experienced instructors will also help you develop in-depth knowledge in human development, teaching and learning theories, instructional strategies, cultural differences, and inclusive educational practices to individualize instruction for diverse learners. You will receive real-world classroom experiences to connect the theories you learn with hands-on practice. This program will also teach you about the historical and current educational influences at the local, state, federal, and global levels to educate you in professional policies and the political process.

Open the windows of young minds today. Enroll in the Education program.

## Bachelor's Degrees

Elementary Education and Special Education

## Associate Degrees and University Transfer

Associate in Arts, Elementary Education
Associate in Arts, Emphasis in Secondary Education
Associate in Science, Emphasis in Secondary Education

## Why You Should Take Education Courses

## Education Career Outlook and Course Recommendations:

Arizona is experiencing a shortage of qualified teachers. Due to increasing population, teacher retirements, and demands for reduction in class size; job opportunities for certified teachers are excellent.

Transfer recommendations: Students are advised to consult with the institution to which they plan to transfer. Universities differ in their admission and course requirements.

## Department recommendations for Elementary and Special Education majors:

EDU221 Introduction to Education
EDU222 Introduction to the Exceptional Learner
EDU230 Cultural Diversity in Education
EDU236 Classroom Relationships OR
EDU/ENH291 Children's Literature OR
EDU/HUM/STO292 The Art Of Storytelling

Other recommendations for Elementary and Special Education majors:

ARH100 Introduction to Art OR
ARH101 Prehistoric Through Middle Ages OR
ARH102 Renaissance Through Modernism

+ COM225 Public Speaking
HIS103 United States History to 1865 OR
+ MAT156 College Algebra/Functions with Review
+ MAT256 Investigating Quantity: Number, Operations and Numeration Systems OR
+ MAT257 Investigating Geometry, Probability and Statistics


## POS221 Arizona Constitution

AND
POS222 U.S. Constitution
See listing of courses for Associate in Arts in Elementary Education (AAEE) in the Graduation Requirements section.

## Emergency Medical Technology

Department: Public Safety Sciences
Contact: Rainier Perez
Phone: (623) 845-3172
Email: rainier.perez@gccaz.edu

Are you searching for a service-oriented career where you can save lives? Consider the Emergency Medical Technology program to take the first steps toward a rewarding career as a firefighter or licensed emergency medical technician (EMT). Upon successful completion of this program, you will be prepared for the fire academy, as well as for EMT jobs with ambulance service companies, first responder agencies, fire departments, and hospitals. You will be eligible to sit for the EMT national certification examination and the Arizona certification examination for Hazardous Materials First Responder Operation, which meets the requirements of the Arizona Center for Fire Service Excellence.

Our qualified instructors will introduce you to fire service, wellness and fitness, and hazardous materials. You will also be trained to recognize and handle a range of medical situations from minor to life-threatening, including learning how to perform cardiopulmonary resuscitation (CPR), automatic external defibrillation, and the procedures for administering oxygen and medication. We will also teach you how to stabilize and transport trauma victims and those suffering a major medical event like a heart attack or stroke.

If you're ready to make a difference as a firefighter or EMT, start your training in the Emergency Medical Technology program today!

## Certificates

Emergency Medical Technology Comprehensive

## Fast Track Certificates

Emergency Medical Technology

## Why You Take Emergency Medical Technology

Certificates of Completion (CCLs) in Emergency Medical Technology or Emergency Medical Technology Comprehensive curriculum provides the student with the necessary knowledge and skills in accordance with the National Emergency Medical Services (EMS) Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. With successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. An EMT will treat and stabilize the patient and may provide transport to a medical care facility. Includes instruction on preparatory topics, airway management, patient assessment, medical emergencies, trauma emergencies, pediatric care and EMS operations.

The EMT program meets the educational requirements set forth by the National EMS Scope of Practice published by NHTSA, National Registry of Emergency Medical Technicians
(NREMT) and the State of Arizona Administrative Register, R9-25-301 Article 3: Training Programs, The State of Arizona, NREMT, and local EMS agencies may have additional requirements including state and federal criminal background investigations and disclosures to obtain certification and licensure as an EMT or Paramedic in Arizona.

## Emergency Response Management

Department: Public Safety Sciences
Contact: Sean Stumbaugh
Phone: (623) 845-3908
Email: sean.stumbaugh@gccaz.edu
There will always be a need for skilled emergency management professionals to lead the efforts in preparing and coordinating emergency management programs at the business, government, and military levels. This critical role requires the right training to organize and manage emergency operations, mitigate terrorist and hazardous materials risks, and ensure the safety of our firefighters. Join the Emergency Response Management program today to take the first step towards an exciting career serving the public sector.

This program will teach you the essentials of planning and conducting comprehensive, integrated emergency management programs - utilizing proven strategies for coordinated community responses, prevention, and resources. You'll also learn how to assess and plan hazard mitigation strategies and evaluate various methods used for managing emergency incidents.

Begin your future now with the Emergency Management program!

## Certificates

Emergency Management

## Engineering

Department: Technology and Consumer Sciences
Contact: Didem Yamak
Phone: (623) 845-3974
Email: didem.yamak@gccaz.edu
Everywhere you look, engineering and technology have impacted how we live and breathe in this world - we wouldn't be where we are today without engineers creating, building, and innovating. In educating the next generation of engineers, this program teaches the engineering essentials of Science, Technology, Engineering, and Math (STEM) - the cornerstones of a good engineer. Students will also develop strong analytic and critical thinking skills that will not only aid them in identifying, assessing, and solving complex problems but will be vital in handling conversations and interacting with colleagues on all levels in an organization.

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Engineering
Engineering Technology

## Why You Should Take Engineering at GCC

The Engineering Program at Glendale Community College provides both the Associate in Applied Science (AAS) in Engineering Technology and the Associate in Science (AS), Emphasis in Engineering.

The AAS in Engineering Technology program prepares students as entry-level engineering technicians. They will apply basic engineering principles and technical skills to support engineers engaged in a wide variety of projects. Includes instruction in various engineering support functions, including preparation in the areas of research, production, and operations. This degree prepares highly skilled and needed workers for area manufacturers and the tech industry.

The AS, Emphasis in Engineering provides the majority of the first two years of a four-year curriculum for students who wish to transfer to a four-year institution to earn a bachelor degree in an engineering discipline. With a bachelor degree, students may pursue a career as an engineer in a number of areas including but not limited to aerospace engineering, biomedical engineering, chemical engineering, civil engineering, computer systems engineering, electrical engineering, industrial engineering, and mechanical engineering.

Acquired Skills:

- Gain introductory engineering design experience.

Complete projects to build robots, rockets, catapults, and mousetrap powered vehicles.

- Gain team skills required in an engineering work environment. Establish team goals; set ground rules; decide how to resolve team conflicts.
- Gain computer application skills. Use MatLab to solve optimization and area problems from calculus. Use Excel to calculate odds and solve problems using iteration methods. Use AutoCAD to build models of engineering designs.
- Gain science and mathematics skills. Calculate the height of your rocket and the path of catapult projectiles; use levers and/or torsion to power catapults and vehicles. Design a vending machine or a miniature microprocessor.
- Gain effective verbal and written communications
skills. Learn how to give effective PowerPoint presentations. Document project work in a design notebook.

```
Program course offerings:
+ CSC/EEE230 Computer Organization and Assembly Language
+ ECE102 Engineering Analysis Tools and Techniques
+ ECE103 Engineering Problem Solving and Design
+ ECE105 MATLAB Programming
+ ECE211 Engineering Mechanics-Statics
+ ECE212 Engineering Mechanics-Dynamics
+ ECE215 Mechanics of Materials
+ ECE216 Computer-Aided Engineering
+ ECE216LL Computer-Aided Engineering Laboratory
+ EEE120 Digital Design Fundamentals
+ EEE202 Circuits and Devices
Other course recommendations:
+ CSC100 Introduction to Computer Science (C++)
+ CSC110 Introduction to Computer Science (Java)
+ CHM152 General Chemistry II AND
+ CHM152LL General Chemistry II Laboratory
OR
+ CHM152AA General Chemistry II
+ MAT220 Calculus with Analytic Geometry I
+ MAT225 Elementary Linear Algebra
+ MAT227 Discrete Mathematical Structures
+ MAT230 Calculus with Analytic Geometry II
+ MAT240 Calculus with Analytic Geometry III
+ MAT276 Modern Differential Equations
+ PHY115 University Physics I
+ PHY116 University Physics II
+ PHY241 University Physics III: Thermodynamics, Optics, and
Wave Phenomena
```


## English

Department: English, Reading, Journalism and Creative Writing Contact: Dr. Jennifer Lane
Phone: (623) 845-3436
Email: jennifer.lane@gccaz.edu
Courses in English are in the areas of composition, literature, and linguistics. Composition courses concentrate on the communication skills of writing, reading, and speaking. Courses in literature encourage students to comprehend and appreciate essays, prose fiction, poetry, and drama. Courses in linguistics examine the history, development, and structure of language.

Communication skills taught in the English Department are essential in any employment area. English majors are well prepared for careers in teaching, law, politics, journalism, writing, editing, public relations, advertising, marketing, and management.

English courses fulfill general education requirements in communications and humanities and provide background for advanced study programs. They develop communication skills for personal, employment, and academic use. English Humanities (literature) courses encourage personal enrichment through the study of literature.

English as a Second Language (ESL) courses assist speakers of other languages to learn to speak, write, and read English.

Students should consult with an advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, degreeseeking students may find it necessary to extend completion timelines and attend both day and evening classes.

Special skill levels needed: The department recommends that students have computer skills. Papers must be typed and research is database driven.

Departmental recommendations: The following courses are generally required for a baccalaureate degree in English:

+ ENG101 First-Year Composition OR
+ ENG107 First-Year Composition for ESL
+ ENG102 First-Year Composition OR
+ ENG108 First-Year Composition for ESL
+ ENG200 Reading and Writing about Literature
+ ENG216 Persuasive Writing on Public Issues OR
+ ENG217 Personal and Exploratory Writing
+ ENH221 Survey of English Literature Before 1800
+ ENH222 Survey of English Literature After 1800
+ ENH241 American Literature Before 1860
ENH242 American Literature After 1860
Foreign language: 8-16 credits


## English Literature

Department: English, Reading, Journalism and Creative Writing
Contact: Dr. Jennifer Lane
Phone: (623) 845-3436
Email: jennifer.lane@gccaz.edu
Do you have a love of the written word and want to explore and analyze some of life's most significant questions and themes? If so, the English Literature program awaits you. This program provides the first two years of a 4-year curriculum for those who wish to specialize in literary and cultural studies. A degree in English literature opens the door to a variety of
career possibilities, including education, publishing, writing, pharmaceuticals, medicine, and engineering.

The English Literature program focuses on improving your writing and communication skills for a range of audiences and contexts, focusing specifically on scholarly concepts and conventions within the field of English studies. You'll put on your critical thinking hat to analyze literature in social, cultural, and historical contexts, as well as genres, movements, national traditions, and themes. You will learn how to develop and support textual analysis by incorporating theory, scholarly work, and personal insights.

Begin your exploration of English Literature today and make it happen!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in English (Literature)

## Entrepreneurial Studies

Department: Business and Information Technology
Contact: Kendra Swensen
Phone: (623) 845-3947
Email: kendra.swensen@gccaz.edu
Maybe you've felt the urge to start a business your whole life. Maybe you decided to be your own boss just recently. Either way, if you have the spirit of entrepreneurship, consider enrolling in our Entrepreneurial Studies program to get started on the right foot. Upon completion of this program, you will be equipped with the skills necessary to run a successful small business.

Our experienced instructors will teach you how to develop, pitch, and execute your ideas - be it for a product or small business. You'll learn how to create a preliminary business plan, evaluate different start-up opportunities, assess an opportunity's financial feasibility, and build the first steps in starting a thriving company. You'll also learn about entrepreneurship concepts, running a small business, and the impact of entrepreneurship on society.

Make it happen. Begin your journey with our Entrepreneurial Studies program today.

## Certificates

Entrepreneurial Studies Level II
Small Business Management Level II

## Fast Track Certificates

Entrepreneurial Studies Level I
Small Business Management Level I

## Ethnic Studies

Department: Communication and World Languages
Contact: Kim Feld, Ph.D.
Phone: (623) 845-4818
Email: k.feld@gccaz.edu
One of the most important qualities to have in a job are people skills and the ability to interact and work with people of different backgrounds. By raising awareness of other ethnicities' experiences and cultures, we can begin to break down the walls of misconceptions and learn how to relate and communicate better with one another - thereby strengthening our bond to build stronger relationships with people of different cultures.

Our Ethnic Studies program focuses on the interdisciplinary study of race and ethnicity and explores the unique experiences of Mexican Americans and African Americans. Our knowledgeable instructors will use critical thinking, inquiry, and discourse to explore the history and cultures, as well as socioeconomic concerns, literature, gender and sexual identities, religions, and inter- / intra-group dynamics of these ethnicities.

Successful completion of this program may open doors to employment opportunities with government agencies, nonprofit organizations, educational institutions, community organizing, law firms, hospitals, business and economics, counseling, journalism, global development, and research organizations.

Make it happen today - enroll in the Ethnic Studies program.

## Certificates

Chicana and Chicano Studies

## Exercise Science

Department: Fitness and Wellness
Contact: Lisa Lewis
Phone: (623) 845-3784
Email: lisa.lewis@gccaz.edu
Are you fascinated with health, fitness and wellness? Do you want to motivate and help transform people into better versions of themselves? Or do you want to help heal athletes from sports-related injuries? If you answered yes to any of these questions, consider joining the Exercise Science program.

The Exercise Science degree programs and certificates prepare students for entry-level personal training positions within health and fitness clubs, wellness centers, and public and private recreation facilities. Upon graduating with an associate in the Exercise Science: Health, Fitness, and Sports Performance program, you will be prepared to test for respected national personal trainer certifications. Students can receive continued
education to begin careers in exercise directing, exercise physiology, athletic training, occupational therapy, physical therapy, sports medicine, and more.

Make it happen! Get in motion today and enroll in our Exercise Science program.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Exercise Science
Exercise Science: Health, Fitness, and Sports Performance

## Certificates

Health and Wellness Coaching
Personal Training
Personal Training: Advanced

## Why You Should Take Fitness and Wellness Courses at GCC

The Fitness and Wellness Department seeks to help students apply their knowledge of fitness, health, and nutrition in a practical and professional manner.

Our fitness and nutrition labs and facilities have state-of-the-art equipment that provide hands-on experiences and enhance students' testing skills in VO2 max, body composition, muscular strength, power and flexibility. Notable facilities include the Sports Performance Lab, Fitness Centers, Adapted Fitness Center, Powerhouse, Olympic-sized swimming pool, tennis courts, and racquetball courts.

In addition to Exercise Science (EXS) courses, the department offers courses in Health Sciences (HES), Health and Wellness Coaching (HWC), Physical Education (PED), Recreation (REC), Sports (SPT), and Wellness Education (WED).

Students should see a Program Advisor each semester to plan for an easy transition to the university.

Health and Wellness Coaching (CCL): Designed to prepare students for employment as a health and wellness coach. Health and wellness coaches facilitate client-driven goalsetting, self-discovery, active learning, and accountability using behavior change theories. The program is designed to equip students to apply communication and motivational strategies to improve overall health and well-being. This certificate is designed to prepare students who have completed or are in pursuit of an associate degree for the National Board for Health and Wellness Coaching Certification Exam.

Personal Training (CCL): Designed to help prepare students for employment in the fitness industry as a personal trainer. The program provides students with a fundamental knowledge of human anatomy and physiology, nutrition, weight management, CPR and AED training, and skills to assess, design, and implement safe and effective exercise programs.

Personal Training: Advanced (CCL): Based on the foundation of the Personal Trainer CCL, and offers more advanced and diversified courses. Students who complete both programs will be prepared for the AAS in Exercise Science: Health, Fitness and Sports Performance.

## Exercise Science: Health, Fitness and Sports Performance

(AAS): Designed to prepare students for employment in entrylevel positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. This curriculum also provides good preparation for transfer to a four-year bachelor degree program in Sports Medicine, Kinesiology, Fitness, Wellness and more. The program prepares students for respected personal trainer certification exams.

Associate in Arts, Emphasis in Exercise Science (AA): Provides the first two years of a four-year curriculum for students who wish to specialize in Exercise Science, Kinesiology, Clinical Exercise Physiology, Sport Science, Healthy Lifestyles Coaching, or Fitness and Wellness. With a bachelor's degree, students may pursue a career as a fitness specialist or director, strength and conditioning specialist, healthy lifestyles coach, or an exercise physiologist. With a graduate degree, students may pursue careers in a number of fields, including but not limited to physical therapy, occupational therapy, athletic training, exercise physiology, medicine, and physician assistant.

Bachelor of Science in Health Sciences-Fitness Wellness (BS):
Awarded from Northern Arizona University. Students can complete their bachelor's degree at GCC. This bachelor's degree prepares students for careers in the industry and for advanced degree programs in Athletic Training, Physical Therapy, and Occupational Therapy. Contact glendale@nau.edu for more information.

## Family Studies

Department: Technology and Consumer Sciences
Contact: Gina Weatherly
Phone: (623) 845-3194
Email: gina.weatherly@gccaz.edu
Are you looking for a meaningful career where your work makes a positive and lasting impact? If you enjoy helping children and adolescents and their families strengthen their family bond through skilled and proven techniques, consider enrolling in the Family Studies program. Upon successfully completing this program, you can pursue a career in public, private, and human service agencies working with people of all ages, including children, teens, adults, seniors, and families. This program will also prepare you to transfer to a university and major in fields related to family life education, human development, or child and family studies.

Our experienced instructors will teach you skills and techniques necessary for working with adolescents and their families in the family life education, human development, early childhood, and adolescent settings. You will examine human development as it pertains to children and adults, marriage and family relationships, and the dynamic correlation between school, community, and family and how those intersect with one another.

Begin a rewarding career today! Enroll in the Family Studies program.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Family Life Education

## Certificates

Child and Family Organizations Management and Administration

## Film

Department: Art and Humanities
Field of Interest: Visual and Performing Arts
Contact: Stephanie Lucas
Phone: (623) 845-3755
Email: stephanie.lucas@gccaz.edu
Quiet on set! Camera rolling?! Action! If you fantasize about film school leading to a career in movies or television, the Film \& Media Production program can help you get a head start in these highly competitive industries. The film production pathway will introduce you to the latest technologies and provide you with the opportunity to work on client-based and/or student-led creative projects where you can hone your skills. From pre-production (including screenwriting, budgeting, and scheduling) to production (directing, cinematography, and sound) and on to post-production (editing including sound design and advanced techniques using VFX), we offer classes for all interests and skill sets.

For students who want to focus on non-fiction stories that run from the personal to the globally relevant, our Documentary Film Production degree covers all technical and storytelling aspects of this increasingly important genre.

Create a new and exciting future in media and film production. Make it happen today!

## Associate Degrees and University Transfer

Film and Media Production

## Certificates

Documentary Film Production

## Fine Arts

Department: Art and Humanities
Contact: Brendan Regan
Phone: (623) 845-3449
Email: brendan.regan@gccaz.edu
The study of fine arts is rooted in the process of creating artwork in various mediums designed through both conceptual and aesthetic considerations. Traditional fine arts courses lay the foundation for not only artists working in this field, but also careers in a technology based approach. The art program at Glendale Community College (GCC) prepares students to take that next educational step along with focusing on career tracks for becoming an emerging artist. Various concentrations are offered through mediums such as painting, drawing, and multiple 2D/3D applications.

This program is designed for students who wish to specialize in Fine Arts. If the student intends to transfer to a four-year institution, he or she should consult the institution's catalog for appropriate lower-division courses that can then be taken at GCC.

The following courses would be acceptable at most four-year schools for lower division credit:

ARH101 Prehistoric Through Gothic Art
ARH102 Art from Renaissance to Modernism
ART111 Drawing I
ART112 Two-Dimensional Design
ART113 Color
ART115 Three-dimensional Design
ART116 Life Drawing I

+ ART117 Life Drawing II
+ ART122 Drawing and Composition II
ART131 Photography I
+ ART132 Photography II
ART151 Sculpture I
+ ART152 Sculpture II
ART255 Art Marketing
AVC100 Introduction to Digital Arts
AVC142 Intro to Digital Photography

Students should consult with an advisor prior to every semester to keep on track with their educational goals. Courses are offered in sequence with the understanding that every course is not offered every semester.

If the student is seeking the Associate in Arts, Fine Arts degree please consult with an advisor to determine which track best suits your individual needs.

Make your art school dreams happen and join the Fine Arts program today.

## Associate Degrees and University Transfer

Associate in Arts, Fine Arts, Emphasis in Art

## Fire Science

Department: Public Safety Sciences
Contact: Sean Stumbaugh
Phone: (623) 845-3448
Email: sean.stumbaugh@gccaz.edu
Firefighter jobs require individuals who possess an elite mindset and physical nature. If you have an innate desire to help others and are physically fit and active, consider a career in firefighting.

The Fire Science program will train you for a potential career in the fire service industry and prepare you for state and national certifications, including the Hazardous Materials Awareness and Operations certification, Candidate Physical Ability Test (CPAT), and Firefighter I and II certifications. You'll gain the skills and broad knowledge needed to serve as an effective firefighter working in a team environment. Qualified instructors will explain theories of fire behavior and methods of fire control and prevention. They will also teach you how to properly use personal firefighting safety gear and firefighting equipment. You'll master the physical tasks of the job and learn how to mitigate the hazards inherent in firefighting.

If you're ready to pursue a unique career in this much-needed field, make it happen today and enroll in the Fire Science program.

## Associate Degrees and University Transfer

Fire Science
Fire Service Management

## Certificates

Fire Service Management
Firefighter Operations
Non-Sworn Fire Service Professional

## Fast Track Certificates

Driver Operator

## Why You Should Take Fire Science at GCC

The Fire Science program at Glendale Community College prepares the student primarily for a career in fire service. It also would enhance one's performance in safety education, arson investigation, and related careers.

Greater Phoenix is one of the fastest growing cities in the "Sun Belt," and the need for firefighters will increase in direct proportion to the total population. Although competition is heavy for available positions, the applicant with a Fire Science background has a significant advantage over those without training. However, a degree in Fire Science does not guarantee
employment. Persons already employed as firefighters can expect the attainment of the degree to be an asset when seeking promotion within a fire department or district.

FSC110 (Wildland Firefighter) training classes which meet the National Wildland Coordinating Group S-130, S-190 and I-100 learning objectives, are offered weekends during the spring and fall semesters. Registration information is available by contacting the Fire Science Department.

To be considered for employment in local fire departments, a candidate must meet the following minimum standards:

- United States citizenship;
- A high school diploma or GED equivalency certificate;
- No felony conviction in any state or federal jurisdiction;
- A medical examination by a licensed physician attesting that no physical conditions exist which would adversely affect the performance of duties as a firefighter;
- Successful completion of the agility and written (general knowledge) tests and oral interview as specified by the employing fire department;
- Proportional height and weight; and
- Minimum age as required by law.

Students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. Due to limited course offerings, degree-seeking students may find it necessary to extend completion time lines and attend both day, evening, and weekend classes.

## Forensic Science

Department: Public Safety Sciences
Contact: Paul Brown
Phone: (623) 845-3913
Email: paul.brown@gccaz.edu
Are you looking for a fascinating and dynamic career in forensic science where your days are never the same? Our Forensic Science program can prepare you to use your problem-solving skills to probe mysteries, explore unusual situations, and perform complex lab tests.

The Forensic Science program offers an associate degree with two possible areas of emphasis: Crime Scene Investigation and Lab Science. Two certificates of completion are also available.

Crime Scene investigation will develop the skills and knowledge you need to investigate and reconstruct crime scenes using science-based evidence techniques and logical analysis. You'll learn criminal investigation procedures, evidence collection and
preservation methods, death investigation techniques, crime scene reconstruction methodology, and evidence presentation during courtroom testimony.

Lab Science teaches you the skills and techniques used in the crime lab to evaluate, compare, and identify physical and biological evidence recovered from crime scenes. You'll learn techniques like fingerprint development and comparison, firearms examination and testing, projectile comparison, DNA extraction, controlled substance testing and identification, and blood and body fluid identification and testing. You'll also learn various instrumental techniques like electrophoresis, microscopy, and spectroscopy. In addition, you'll learn how to write crime lab reports and how to testify in court.

Join the Forensic Science program to embark on a satisfying career in law enforcement where your actions directly help improve public safety.

## Associate Degrees and University Transfer

Forensic Science

## Certificates

Crime Scene Investigation
Fingerprint Identification and Photography

## Geography

Department: Social Sciences
Contact: Lynn Newman
Phone: (623) 845-3877
Email: lynn.newman@gccaz.edu
Are you fascinated by the world around you and looking to expand your horizons? If you're interested in geography, geospatial technologies, or meteorology, consider enrolling in our Geography program. This program can prepare you to work in a range of fields like government, education, commerce, industry, transport, and tourism. You will learn analytical and research skills that are highly valued by employers.

The Geography program can open up a wide range of possible roles, depending on the level of education you pursue, including cartographer, geographer, surveyor, hydrologist, GIS technician or technologist, meteorologist, climatologist, forest fire inspector and prevention specialist, atmospheric and space scientist, environmental scientist, geoscientist, climate change analyst, urban planner, and geography professor.

Enroll in the Geography program to explore the possibilities available to you. It's time to make it happen.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Geography
Associate in Science, Emphasis in Geography - Meteorology

## Geology

Department: Physical Sciences
Contact: Gary Calderone
Phone: (623) 845-3654
Email: gary.calderone@gccaz.edu
Geoscientists seek to understand the Earth's composition, natural systems, and history. Our understanding of processes such as earthquakes, volcanic activity, landslides, floods, land subsidence, coastal processes, and climate changes have a tremendous impact on human activity and, indeed, human life! Humans depend on Earth's resources including surface and groundwater, soils for growing crops and building materials, fossil and nuclear fuels, metallic and non-metallic building materials. Geoscientists work to find and manage such resources. Deciphering Earth's long history may provide us with potential insights into our own future.

In addition to natural resource companies including the mining and fossil fuel industries, Geologists are routinely employed by research agencies including those in federal, state and local governments as well as non-profit organizations; geologic engineering, hydrological, and environmental consulting firms; and secondary schools, colleges and universities. Most entry level work requires a bachelor's degree. Graduate degrees are often required for research and supervisory geologists as well as post-secondary faculty positions. Most graduate degrees focus on specialties including but not limited to geochemistry, geophysics, paleontology, planetary geology, geological/mining/petroleum engineering, and hydrology. Other fields/majors such as civil engineering, forestry, sustainability, and environmental sciences either require or strongly recommend some background courses in geology.

Many geoscientists spend some time in the field gathering samples, collecting data and/or determining spatial relationships. An office or laboratory environment is often used for data analysis and synthesis often using computers for the preparation of written reports, maps, and cross sections.

If the study of the Earth captivates you, please consider starting your career in the Geological Sciences!

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Geology

## Why You Should Take Geology at GCC

We, the Geology Faculty, are experienced research, industry, and academic geologists dedicated to community education, offering Geology courses to serve the needs of:

Geology majors, minors, as well as future and in-service science teachers.

Students majoring in fields that require or recommend some geology foundation (e.g. civil engineering, forestry, environmental sciences etc. (See our Career \& Degree Path Link)

Students who need to satisfy the Arizona General Education Curriculum (AGEC) for their Associate degrees or certificates, or to transfer to Arizona's public universities. Many GLG courses satisfy SQ and SG science requirements and some can be used to simultaneously satisfy Global and Historical Awareness areas.

Members of the community interested in geology- from the scale of individual minerals to the solar system itself or anywhere in between.

GCC Geology courses are taught in all modalities (in person and/or online) utilizing advanced instructional technologies and immense collections of minerals, rocks, fossils and a wide variety of demonstration materials. Actual sample kits are available for online courses. We are routinely available outside of class. We also take advantage of Arizona's spectacular geologic setting to provide the opportunity for real-time field observation of many geological features.

Geology and Earth Science: Geology is the scientific study of the Earth - its composition, structure, history, processes, and its interaction with biological systems and life forms, including humans. Geologists provide the fundamental information required by society to solve problems in resource development, land-use planning, water resource management, geologic hazards, and environmental policy. Furthermore, geologists perform the basic research necessary to understand such processes as global climate change, biological extinctions, earthquakes, and volcanic hazards. Finally, geologists are called upon to find new sources of useful earth materials to balance society's growing demand for energy and materials and the need to conserve resources for future generations.

Employment opportunities for geologists include the areas of water resource management, environmental consulting for civil engineering and private development enterprises, oil and mineral exploration and production, geologic hazard assessment, federal/state research, management, and environmental agencies, and teaching.

The recommendations below are designed as the first two years for students intending to pursue the bachelor's degree in geology, earth science, geophysics-geochemistry, or hydrology. Students should consult a Department Advisor for specific requirements of senior institutions.

Geology major recommendations: The following courses are required by each of the State's Universities.

GLG101 Introduction to Geology I - Physical Lecture AND
GLG103 Introduction to Geology I - Physical Lab
OR
GLG101IN Introduction to Geology I - Physical

GLG102 Introduction to Geology II - Historical Lecture AND
GLG104 Intro to Geology II - Historical Lab
OR
GLG102IN Introduction to Geology II - Historical

## Other recommendations for Geology majors:

+ CHM150 General Chemistry I OR
+ CHM151 General Chemistry I AND
+ CHM151LL General Chemistry Laboratory
OR
+ CHM150AA General Chemistry I
OR
+ CHM151AA General Chemistry I
+ CHM152 General Chemistry II AND
+ CHM152LL General Chemistry II Laboratory
OR
+ CHM152AA General Chemistry II
+ MAT220 Calculus with Analytic Geometry I OR
+ MAT221 Calculus with Analytic Geometry I 4-5
+ MAT230 Calculus with Analytic Geometry II OR
+ MAT231 Calculus with Analytic Geometry II 4-5
+ PHY115 University Physics I
+ PHY116 University Physics II
Other recommendations for non-majors: Geology can be used to satisfy both the Science and Global and Historical Awareness requirements of the AGEC-A and AGEC-B and the Optional Sciences requirement of AGEC-S. When taken in combination of lecture and lab together, Physical Geology (GLG101 and GLG103) or Geologic Disasters and the Environment (GLG110 and GLG111) will satisfy the [SO] lab science requirement. Likewise, when taken in combination of lecture and lab together, Historical Geology (GLG102 and GLG104) will satisfy [SG] lab science requirements. GLG105 or the combination of GLG110/GLG111 will satisfy the Global Awareness [G] credit. GLG102 qualifies for Historical Awareness [H] credit.

GLG103 Introduction to Geology I - Physical Lab 1 GLG102 Introduction to Geology II - Historical Lecture 3 GLG102IN Introduction to Geology II - Historical 4 GLG104 Introduction to Geology II - Historical Lab 1 GLG105 Introduction to Planetary Science 4
GLG110 Geologic Disasters and the Environment 3 GLG110 Geological Disasters and the Environment 4 GLG111 Geological Disasters and the Environment Lab 1

## History

Department: Social Sciences
Contact: Donna Allen
Phone: (623) 845-4760
Email: d.allen@gccaz.edu

History concerns the political, economic, social, and cultural events and achievements of humanity. Historians analyze and evaluate this material in an attempt to understand the past and interpret the present.

History courses at Glendale Community College serve students who intend to major in history at a four-year institution, students who need these courses in preparation for other courses and to fulfill general education requirements at most universities, and students choosing them for personal interest. Students intending to pursue a baccalaureate degree in history should consult with a departmental advisor to plan their program.

Those with a baccalaureate in history will find the teaching field crowded. Careers with museums, historical societies, special libraries, archives, government agencies, and communication media (consulting and research) should be explored. Because of its breadth as a part of the liberal arts curriculum, a baccalaureate in history provides excellent preparation for any occupation emphasizing communications skills and personal relations, e.g., journalism, civil service, law, foreign service, publishing, and public relations.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in History

## Honors Program

Contact: Honors Office
Phone: (623) 845-3650
Email: honors@gccaz.edu

The GCC Honors Program provides intellectually stimulating opportunities to high-achieving students. We offer a wide range of classes across academic disciplines that challenge students intellectually while providing specialized curriculum and learning experiences. Our co-curricular experience introduces honors scholars to exciting events and activities that take place outside the classroom. These experiences facilitate academic, social, and intellectual growth for our honors students.

For more information about our diverse opportunities to become an honors scholar at GCC, please visit Apply to Become an Honors Scholar.

## Honors Program Goals

In realizing our vision and mission, the GCC Honors Program strives to:

- Foster a climate of excellence in the college and surrounding community
- Raise awareness of critical local, national, and global issues
- Promote a sense of scholarship and community
- Encourage students to excel in their academic endeavors
- Recognize the talent and motivation of our outstanding community college students
- Serve as a resource for innovation and testing new methodologies and services


## Apply to Become an Honors Scholar

The Honors Program at GCC offers three ways for students to become Honors scholars: the Presidents' Honors Scholarship, the Honors Achievement Award, and the Clarion Award. Students may only qualify as one type of honors scholar at any given time.

## Humanities

Department: Art and Humanities
Contact: Brandon Cleworth
Phone: (623) 845-4572
Email: brandon.cleworth@gccaz.edu

What does it mean to be human? How can we live well in an ever-changing world? What are the common threads that bind us together? In what ways are our experiences culturally constructed and fundamentally different from others? From ancient to modern times, we have asked penetrating questions about the human condition. Now as then, we use language, philosophy, religion, art, music, performance, and literature to puzzle through these questions, to organize our world, and to negotiate the fundamental aspects of being human. These modes of expression are fundamental to what we call "the humanities."

The humanities represent diverse disciplines concerned with human experience, thought, and creativity. In addition to our pathway, all associate degree programs within MCCCD require 3-6 credits of humanities courses. The courses in the humanities deploy rigorous and interdisciplinary lenses to investigate the intellectual expression and cultural practices of the ancient and modern worlds.

We study the humanities to challenge our assumptions in order to move towards a deeper understanding of the world. Courses in the humanities allow us to explore personal and community values, cultural views, religious beliefs, and aesthetic practices and theories. Engagement with the humanities allows us to sharpen our critical and creative thinking, to ask penetrating questions, to communicate effectively, and to develop an informed and empathetic worldview. Through the humanities we become dedicated lifelong learners. These habits of mind
well-position students for careers in a diverse array of fields.
Graduates from humanities programs pursue successful careers in education, law, creative and professional writing, marketing and international business, social media production and management, government, the nonprofit sector, arts administration, and the helping professions.

Make it happen today! Enroll in the Humanities program or take a humanities course today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Humanities

## Information Studies and eSociety

Department: Library
Contact: Elizabeth Saliba
Phone: (623) 845-3746
Email: elizabeth.saliba@gccaz.edu
Technology has rapidly transformed how we create, distribute, access, and consume information. Today's companies are looking for professionals who can communicate effectively across digital platforms and also possess the critical thinking skills necessary to evaluate and understand the behaviors and biases that are inherent in digital communication. Marketing and communication professionals specialize in analyzing the impact of media on daily life and society in order to help companies strategize, engage, and communicate effectively.

The Information Studies and eSociety program will help prepare you for work in a variety of communication fields, such as marketing, social media, libraries, editing, public relations, journalism, and online content creation. Our experienced instructors will teach you how to communicate across diverse populations and platforms using the latest digital tools and media. You will develop critical-thinking skills to evaluate information in several formats, as well as examine our roles as content creators and consumers in a global society. The program will also teach you the importance of using information according to ethical, legal, and copyright considerations.

Make it happen today with the Information Studies and eSociety program!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Information Studies and eSociety

## Journalism

Department: English, Reading, Journalism and Creative Writing
Contact: Dr. Jennifer Lane
Phone: (623) 845-3436
Email: jennifer.lane@gccaz.edu

Have you ever dreamt of becoming a reporter? The free press in the United States has played a crucial role in our development as a nation and a society. Journalists continue to exert influence as they inform, educate, and entertain us. With the $24 / 7$ news cycle, there is more need than ever for trained journalists to produce quality content. If you have a strong desire to cover current events and trends while communicating with the public, choosing a career in journalism could be your first big break.

Our Journalism program is designed to help you start your career as a reporter or editor, whether you are a new student or someone with a degree in a different area who is shifting career goals. Instructors with real-world experience will teach you general, practical, and marketable skills that will enable you to seek entry-level employment in news and feature writing for newspapers, magazines, community journals, online websites, and radio and television. By the time you graduate from the Journalism program, you will have created a portfolio of published articles demonstrating your ability to write news and feature stories.

Take the first step on the path to your new career as a member of the free press, and enroll in the Journalism program.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Journalism and New Media Studies

## Languages

Department: Communication and World Languages
Contact: Kim Feld, Ph.D.
Phone: (623) 845-4818
Email: k.feld@gccaz.edu
If the key to success is better understanding the world around you, what area of study would make more sense to pursue than world languages? Studying languages is not just about learning different tongues and dialects - it also teaches the intercultural skills necessary to be a contributing member of our local and global community.

Our experienced instructors will guide you through this intensive liberal arts program in world languages studies. Our humanities and foreign language courses will prepare you for further university studies, travels abroad, transitions into the workforce, or advancement in your current career. Possible and exciting roles you can work towards include interpreter, translator, speech-language pathology assistant, reporter, and instructor.

Make it happen. Take your first step toward enrolling in the World Languages program today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Japanese
Associate in Arts, Emphasis in Spanish

## Certificates

Language Studies

## Why You Should Take Language

The following language course descriptions are available in the MCCCD Course Bank:

- ASL American Sign Language
- ARB Arabic
- CHI Chinese
- FRE French
- GER German
- JPN Japanese
- SLC Studies in Language and Culture
- SPA Spanish
- SPH Spanish Humanities

The study of another language not only provides a language skill, but also helps students understand the customs and cultures of other countries. Glendale Community College offers the opportunity to study a variety of world languages: American Sign Language, Arabic, Chinese, French, German, Japanese, Linguistics (SLC), Spanish, and Spanish Humanities.

Students take these courses:

- For personal interest. The standard courses (101, $102,201,202$ sequence) provide a thorough grounding in basic grammar, pronunciation, and vocabulary in the selected language. The 115-226 sequence is especially recommended for those who wish to focus on conversation mainly for travel needs.
- To provide background for other careers. The 115116 sequence is recommended.
- To prepare for a major at a four-year institution. Although most language majors with a bachelor's degree enter secondary school teaching, others find jobs in travel bureaus, firms involved in foreign trade, and governmental agencies. Those wishing to become college instructors or professional linguists need advanced training far beyond the bachelor's degree. The 101, 102, 201, 202 sequence in the selected language satisfies university transfer, entrance and graduation requirements.

Other courses may be granted world-language elective credit. Students intending to pursue a baccalaureate degree in a world language should consult with a departmental advisor to plan their program.

Degree-seeking and transfer students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner.

## Law and Policy

Department: Public Safety Sciences
Contact: Genea Stephens
Phone: (623) 845-3951
Email: genea.stephens@gccaz.edu
Studying law and policy can provide you with a versatile skill set valued in a variety of careers. Your understanding of legal processes and the logical reasoning, analysis, and critical thinking skills you gain can set you apart from others in occupations where a law degree isn't required - in fields like human resources, finance, insurance, public policy, risk management, compliance, contracts, probation, real estate, city planning, and administration. If you're ready to learn these valuable skills today, enroll in the Law and Policy program.

This program focuses on the study and application of legal concepts, doctrines, theories, and the role of law in a free society. You will learn how to formulate and effectively defend arguments and complex ideas clearly, both orally and verbally, by synthesizing information from multiple sources. You will amplify your critical thinking skills by analyzing complex textual material, sharpen your creative problem-solving, and much more!

Our mission is your success. Enroll in the Law and Policy program today and make it happen!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Law and Policy

## Marketing

Department: Business and Information Technology
Contact: Kendra Swensen
Phone: (623) 845-3947
Email: kendra.swensen@gccaz.edu
A business can have the best product or service, but if no one knows about it, it won't be successful. That is why competent marketing professionals are in high demand by organizations of all kinds around the globe.

The Marketing program will provide you with the critical knowledge and skills needed to enter and advance your career in the marketing and sales professions. You will learn to identify unmet customer needs and new opportunities, evaluate the marketplace and design assets that target customers and geographies with the most potential, design value propositions
that resonate, and market effectively via traditional and social media channels.

Our program will help prepare you for a dynamic field with a wide range of occupations, including product management, market management, strategic planning, social media content management, wholesaling, retailing, professional sales, and entrepreneurship. You'll be on your way to becoming an integral part of driving a company's success with optimized, data-driven strategies and laser-focused messaging that turn prospects into satisfied customers.

What are you waiting for? Enroll in our Marketing program today!

## Associate Degrees and University Transfer

Marketing and Sales

## Certificates

Marketing
Social Media Marketing

## Mathematics

Department: Mathematics and Computer Science
Contact: Dr. Chris Miller
Phone: (623) 845-3841
Email: c.miller@gccaz.edu
Math plays an essential role in our world. Some sectors and industries could not function without employees who have advanced mathematical training.

If you have a head for numbers and an interest in how math concepts and formulas describe real-world phenomena and make important forecasts, enroll in our Mathematics program. It can prepare you to transfer to a four-year university to earn a bachelor's degree in math, actuarial science, statistics, computational mathematical science, or related fields.

After completing your bachelor's degree, you can work as an actuary, statistical assistant, K-12 educator, or business intelligence analyst. Completing a graduate degree will open up additional employment options, such as a mathematician, statistician, math instructor, or as an analyst in various fields, including finance, data science, cryptography, and scientific computing.

Discover how to make an impact through mathematics and enroll today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Mathematics

## Why You Should Take Mathematics at GCC

Mathematics courses serve students who intend to major in
mathematics at a four-year institution, students who need these courses in preparation for other careers, and students choosing them for personal interest. Students intending to pursue a baccalaureate degree in mathematics should consult with a departmental advisor to plan their program; see Math Course Sequence Pathways Flowchart for more information.

Mathematicians engage in a wide variety of activities ranging from the creating and relating of new theories to solving simple or complex numerical problems. Some graduates engage in mathematics for money, some for humanitarian purposes, and some simply because they find it beautiful.

At a time when most job markets are tight, mathematicians can limit their career opportunities by failing to explore available options. Teaching and research are but two of a long list of possibilities. Related careers are applied mathematics, computer research and programming, biomedical engineering, accounting, pure mathematics, systems analysis, economics, physical and life science, statistics and actuarial professions.

Students should consult with a Science, Technology, Engineering, and Mathematics (STEM) Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. Due to limited course offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes.

## Microsoft Certification Preparation

Department: Business and Information Technology
Contact: Martin Bencic
Phone: (623) 845-3237
Email: martin.bencic@gccaz.edu
Glendale Community College (GCC) is an authorized Microsoft academic training program provider that prepares students for industry-recognized certification.

## Military Science

Contact: Arizona State University (ASU), Army Reserve Training Corps (ROTC)
Phone: (480) 965-3318
Reserve Officer Training Corps (ROTC) offers, degree seeking individuals, a unique opportunity to develop leadership and management skills by providing motivation, generating confidence, establishing guidelines, and practical application in those things that "make a leader." At Glendale Community College, these basic courses are unique for ROTC in that they:

- Do not have any military obligation.
- Teach valuable skills regardless of the student's future plans.
- Can normally be used toward general education requirements at Arizona State University.
- Have no uniform or haircut requirements.

Equivalence for some or all of these courses may be granted to veterans, Junior Reserve Officer Training Corps (JROTC) graduates, national guard or reserve members, or students who attend ROTC summer programs.

## Reserve Officer Training Corps

Arizona State University offers a three-year and a four-year program leading to a commission in the United States Air Force, Space Force, or Army. The Departments of Aerospace Studies and Military Sciences will accept a transfer student from the Maricopa Community Colleges. With an agreement already in place, students may enroll in the Air Force ROTC or Army ROTC program at ASU through GCC.

## Music/Music Education/Music Performance

Department: Performing Arts
Contact: Donald Smith, DMA
Phone: (623) 845-3070
Email: don.smith@gccaz.edu
Become a student in GCC's Music Program and earn an AAFA, Emphasis in Music (AAFA, Music) degree that will help prepare you to audition and transfer to a four-year institution by meeting the selective admission criteria for programs, such as the Bachelor of Music. The AAFA, Music degree is designed for those students that are looking to become music educators, music performers, composers, arrangers, or music therapists. Our music program will help you to become the best musician you can be while learning from highly acclaimed music educators that are as passionate about student success as they are about music. Performance areas of emphasis within the AAFA, Music degree include - choral/vocal, symphonic band (winds and percussion), orchestra, guitar, piano, jazz, contemporary/popular, chamber, musical theater and Mariachi. The music program at GCC also offers an Associate of Applied Sciences (AAS) degree in Music Industry Studies, with emphasis on electronic music, sound design, studio recording and live sound reinforcement.

The program's instructors will teach you how to critically analyze music to understand how music composition has changed over time, according to historical, cultural, and stylistic contexts. They will also teach you how to perform with appropriate tone quality, pitch, rhythm, expression, and articulation. Finally, you'll learn how to use self-evaluation, critical feedback, and aural diagnosis to improve your performance in both solo and group settings.

If you've dreamed of music school or performing as a professional, consider becoming part of the Music program today.

## Associate Degrees and University Transfer

Associate in Arts, Fine Arts, Emphasis in Music

## Why You Should Take Music at GCC

Musicians pursue careers as performers, teachers, composers, arrangers, music theorists, music historians, music therapists, music producers, audio engineers, sound designers, and in music-related business and professional work.

Program description: This program provides the first two years of music required for a bachelor's degree in Music Education, Theory, Composition, Music Therapy, Jazz Performance, Popular Music Performance and Classical Performance. Associate in Arts, Fine Arts (AAFA) degrees with emphases in Music or Musical Theatre are available.

Associate in Applied Science (AAS) degrees and Certificates of Completion (CCLs) are available in Audio Production Technologies.

Every music major pursuing the AAFA, Emphasis in Music degree is required to participate in a large performance ensemble each semester. Qualifying large ensembles include concert choir, band, orchestra, and guitar ensemble. There are many other performance opportunities available, including jazz ensembles, popular/contemporary music, percussion ensemble, Mariachi, chamber choir, jazz choir, musical theater, and many various chamber ensembles such as guitar, flute, clarinet, bass clarinet, saxophone, trumpet, brass quintet, string quartet, woodwind quintet, and brass ensemble.

Most courses in the music program are open to all students. There are some courses which have prerequisites and those are found in the course descriptions. Students who have not had sufficient training in the fundamentals of music are advised to take MTC101 Introduction to Music Theory before taking MTC105 Music Theory I and MTC106 Aural Perception I.

The Performing Arts Department offers class instruction in piano, voice, and guitar. In addition, the department provides private instruction in the areas of piano, guitar, voice, flute, clarinet, oboe, bassoon, saxophone, horn, trumpet, trombone, euphonium, tuba, percussion, drum set, harp, violin, viola, cello, string bass and electric bass. There is a course fee for private instruction that is partially waived for music majors taking a minimum amount of credits. If a student is not ready for "first-year level" in applied music on the major instrument, the first semester of the private instruction sequence will be repeated as many times as necessary. That student will receive a grade of $P$ (credit) or $Z$ (no credit). Upon reaching freshman level, the student will receive traditional grades.

Students who major in music at Glendale Community College (GCC) should follow the curricula as outlined. Various universities and colleges, however, demand specific subjects for degree requirements. Students planning to transfer or continue their work at other institutions should consult their GCC Music Advisor and the catalogs of the universities that they plan to attend.

Availability: Complete day programs. Partial evening programs. Due to limited course offerings, students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. See AAFA, Emphasis in Music; AAFA, Emphasis in Musical Theatre; AAS/CCL in Audio Production-for specific course requirements.

## Music Industry Studies

Department: Performing Arts
Contact: Doug Nottingham
Phone: (623) 845-3915
Email: doug.nottingham@gccaz.edu

Do you have a passion for music and want to break into the music industry? The Music Industry Studies program can prepare you for a range of career paths in areas such as studio recording, electronic music, sound design and live sound reinforcement.

This program can offer a broad background in music management, production, and entrepreneurship activities and provide you a strategic understanding of commercial music as both an art and a profession. If your goal is to work in audio production, the program will give you hands-on experience in audio engineering and teach you how to apply the music and sound concepts involved in recording, live sound reinforcement, and sound design.

Whichever path in the music industry you choose to follow, the Music Industry Studies program can make it happen, so start your journey today.

## Associate Degrees and University Transfer

Audio Production Technologies
Music Industries: Music Business

## Certificates

Audio Production Technologies
Music Business I
Music Business II

## Musical Theatre

Department: Performing Arts
Contact: David Seitz
Phone: (623) 845-3385
Email: david.seitz@gccaz.edu

If you have a passion for performing and a desire to master your craft, the Musical Theatre program will provide you with a foundation in performance and production practices in music, theatre, and dance.

The program's purpose is to prepare you for admission into a performing arts degree program at a four-year university (which may require an audition). Our accomplished instructors will teach you the fundamentals of singing, dancing, and acting. They will help you develop your artistic proficiency and to grow as a performer, and to ultimately prepare a compelling collection of audition or portfolio materials to highlight your performance skills.

Don't just imagine your name in lights - enroll in the Musical Theatre program today and make it happen!

## Associate Degrees and University Transfer

Associate in Arts, Fine Arts, Emphasis in Musical Theatre

## Networking and Security

Department: Varies; see Contact for details.

Contact: Martin Bencic
Phone: (623) 845-3237
Email: martin.bencic@gccaz.edu

Contact: Andrea Schauer (Cisco)
Phone: (623) 845-3502
Email: andrea.schauer@gccaz.edu

Would you like to turn your interest in computers or the internet into an exciting and profitable career where you build and maintain a computer network or ensure security? Specialists with these skills are in high demand.

Networking and IT security professionals are indispensable in keeping computer networks protected and running smoothly and users safe. They wire offices for high-speed broadband, install and maintain firewalls, monitor security software, support desktop users, and build out custom networks.

Our Networking and Security program can train you to perform tasks associated with network administration and security, computer networks and data communications, and information and data security. Depending on your path, this program can prepare you for the following industry certification exams: Cisco CCNA \& CCNP, CompTIA A+, Network+, Security+, Linux+,

Red Hat Enterprise Linux, Microsoft, VMware, Amazon Web Services, and IT Help Desk.

If you're ready to launch a new career in IT security or computer networks - or boost your current one - enroll in our Networking and Security program and make it happen today!

## Associate Degrees and University Transfer

Cybersecurity
Information Security
Network and Systems Administration

## Certificates

Cisco Network Administration: CCNP
Cisco Network Administration and Security
Cyber Engineering
Cyber Operations
Cybersecurity Fundamentals
Information Security Technology
Microsoft System Administration
VMware Network Administrator

## Fast Track Certificates

Cisco Certified Network Professional: Enterprise Advanced Routing and Services
Cisco Certified Network Professional: Enterprise Core
Cisco Network Administration: CCNA
Linux Associate
Linux System Administration
Microsoft Desktop Associate
Red Hat Linux Administrator
Red Hat Linux Engineer
VMware Foundations
VMware Systems Administrator

## Why You Should Take Cisco Networking

Cisco Systems is recognized as a worldwide leader, manufacturer and innovator of networking Internet hardware, software, and high-tech services. Glendale Community College is a Cisco Networking Academy and prepares students for industry-recognized certifications and rewarding careers in Information Technology. The knowledge and skills taught in Cisco courses is the foundation for several information technology careers including network administration, network engineering, network and computer systems administration, network technician, network security, cybersecurity, network virtualization, cloud computing, telecommunications, and more.

The Cisco program is taught by certified Cisco Academy instructors, provides training for those interested in working in the IT industry, and helps to prepare students for industry recognized certification: Cisco Certified Network Associate (CCNA), CCNA Security, CCNA CyberOps, Cisco Certified

Network Professional (CCNP). Students are provided hands-on experience and develop skills to install, configure, and maintain routers and switches; configure routing protocols and Local Area Networks (LAN); troubleshoot hardware and software configurations; and perform administrative tasks in a network.

## Courses:

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support

+ BPC270 A+ Exam Prep: Operating System Configuration and Support
CNT140AB Introduction to Networks
+ CNT150AB Switching, Routing, and Wireless Essentials
+ CNT160AB Enterprise Networking, Security, and Automation
+ CNT171 CCNA Exam Prep
+ CNT203 CCNA Cybersecurity Operations
+ CNT205 Cisco Certified Network Associate Security
+ CNT240 Cisco Certified Network Professional: Enterprise Core
+ CNT250 Cisco Certified Network Professional: Enterprise
Advanced Routing and Services


## Nursing

Department: Nursing
Contact: Dr. Grace Paul, DNP, M.Phil, MSN, RN, CNE
Phone: (623) 845-3626
Email: grace.paul@gccaz.edu

Nursing jobs require the right candidate for a career where no two days are ever the same. If you have a caring nature, are a problem solver, and have a strong desire to help people especially if they're in a distressing situation - then consider a career in nursing.

Our Nursing program, approved by the Arizona State Board of Nursing and the Accreditation Commission for Education in Nursing (ACEN), will prepare you with the fundamental skills necessary to be successful as a nurse assistant, licensed practical nurse (LPN), or as a registered nurse (RN) in a variety of acute, long-term, and community-based healthcare settings.

Once you have completed the Nursing program, you will be eligible to apply for your nursing license in Arizona. Licensure for other states may also be available. We have additional program offerings, including nurse refresher programs for LPNs and RNs, nursing continuing education (NCE) courses, and innovative bridge programs for paramedics and veterans interested in pursuing a career in nursing.

Enroll in the Nursing program and take the first step toward your new career.

Students at any Maricopa Community College may need to complete courses at more than one of our colleges.

## Associate Degrees and University Transfer Nursing

## Fast Track Certificates

Nurse Assisting

## Nutrition and Dietetics

Department: Technology and Consumer Sciences
Contact: Angela Jordan
Phone: (623) 845-4632
Email: angela.jordan@gccaz.edu

If you're passionate about food, nutrition, and health and want a rewarding career helping others, consider the Nutrition and Dietetics program. Upon successful completion of this program, you'll be able to apply nutrition principles and knowledge in a general community setting - focusing on improving the wellbeing and healthy lifestyles of others. If you wish to continue your education and specialize in nutrition, this program provides the first two years of a four-year university curriculum.

This program will provide foundational nutrition training in non-clinical settings. Our experienced instructors will teach you basic nutrition guidelines and concepts of energy balance and fuel metabolism with a focus on improving health, managing weight, and enhancing athletic performance. You will also learn about the nutritional requirements at each stage of the life cycle and evaluate alternate food diets in relation to standard nutritional guidelines. You will also acquire the knowledge to be able to examine basic human physiology as it relates to nutrition and exercise, and so much more!

Make it happen today! Enroll in the Nutrition and Dietetics program.

Students at any Maricopa Community College may need to complete courses at more than one of our colleges.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Nutritional Science

## Paramedicine

Department: Public Safety Sciences
Contact: Michael Patten
Phone: (623) 845-3166
Email: michael.patten@gccaz.edu

A paramedic impacts the lives of people in an emergency when they need them most. If you are looking to become a healthcare professional who provides frontline care to the sick and injured, a career as a paramedic or emergency medical technician (EMT) could be your calling.

Our nationally-accredited Paramedicine program includes studies in anatomy, physiology, pathophysiology, cardiology, pulmonology, pharmacology, pediatrics, geriatrics hematology, toxicology, trauma care, environmental emergencies, and behavioral healthcare. You can also earn credentials in community health, critical care, and tactical emergency casualty care. Our instructors have real-world experience in diversified paramedicine that includes Emergency Medical Services (EMS), the military, law enforcement, and fire services.

Take the career pathway that makes a difference. Choose our Paramedicine program today.

## Associate Degrees and University Transfer <br> Paramedicine

## Certificates

Community Health Paramedicine
Critical Care Paramedicine
Paramedicine
Tactical Emergency Casualty Care

## Why You Should Take Paramedicine

Paramedics are advanced-level providers of emergency care that are educated through a nationally accredited program of 1,500 to 2,000 hours. Paramedics are considered an extension of the hospital emergency department and receive formal education in anatomy, physiology, pathophysiology, cardiology, pulmonology, pharmacology, pediatrics, geriatrics, hematology, toxicology, and many more topics in emergency medicine. The paramedic scope of practice builds on EMT education and includes advanced patient assessment, advanced airway and ventilation management, electrocardiogram analysis and interpretation, administration of more than 50 emergency medications, intravenous therapy, advanced cardiac life support, pediatric advanced life support, trauma management, obstetric care, hazardous materials, and much more.
Paramedics are certified through a process that includes national cognitive and psychomotor examinations. Paramedics continue their professional development through prescribed continuing education.

Certificate of Completion (CCL) in Paramedicine program is a 14-month program that builds on the knowledge obtained in the EMT curriculum with an emphasis on patient assessment, fluid resuscitation, cardiac monitoring, specialized medication administration, and life saving techniques. With advanced lab space, simulators, and mannequins; students learn in a casebased environment that prepares them for actual patient care by emulating real world settings. Most of our faculty still work in the pre-hospital setting and all actively maintain certification and licensure. You must be a licensed EMT before you are able to apply for the paramedic program. Our program is accredited by the Commission on Accreditation of Allied Health Education Programs.

## Philosophy

Department: Philosophy and Religious Studies
Contact: Peter Lupu
Phone: (623) 845-3747
Email: peter.lupu@gccaz.edu

Do you find yourself asking the big questions about life and searching for meaningful answers? If you've ever wondered if we perceive the world accurately or what makes an action wrong, philosophy - meaning "love of wisdom" in Greek could be your calling.

The Philosophy program can help open your mind to understanding diverse world views while giving you the tools to examine the human condition in depth. Not only that, but it will also equip you with analytical skills most employers find invaluable. You'll develop the ability to think logically and read carefully with a critical eye as you study with experts who teach you to spot faulty reasoning - and how to avoid it in your writing and work.

What you learn in the Philosophy program will give you valuable, foundational skills that can transfer to future studies in other disciplines, such as law, social sciences, the humanities, and public policy, if you continue your education at a four-year school.

Take the first step to creating a new reality in the Philosophy program. Start your journey today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Philosophy

## Why You Should Take Philosophy at GCC

Philosophy courses critically examine the nature of human beings and of the world, ways in which people seek to understand their world, and ethical and moral issues which arise. Students take these courses:

- For personal interest: PHI101 (Introduction to Philosophy) and PHI105 (Introduction to Ethics) examine fundamental philosophical issues and major attempts to resolve them. PHI103 (Introduction to Logic) helps the student develop effective reasoning skills.
- To meet the general education Humanities requirement: All PHI courses described below meet this requirement. PHI101 is recommended. All PHI courses transfer.
- To prepare for a major in philosophy at a four-year institution: PHI101 and PHI103 will generally transfer as major credit toward the baccalaureate degree in philosophy. PHI105 may also meet major requirements. Students should consult with a
member of the Philosophy Department to plan for transfer to a four-year institution.
- As background for other careers: Philosophy is strongly recommended as an undergraduate major or minor for those planning to enter law, computer science, journalism, government, public relations, and other areas requiring training and skill in critical thinking.


## Photography

## Department: Art and Humanities

Field of Interest: Visual and Performing Arts
Contact: Stephanie Burchett
Phone: (623) 845-3968
Email: stephanie.burchett@gccaz.edu

The Photography program at Glendale Community College (GCC) covers the artistic, technical, and business side of the medium. You'll learn from engaged faculty who are committed to providing students with the basic fundamentals for careers or transfer opportunities with the field. Students will develop not only the technical skills needed to succeed, but more importantly an artistic vision and a unique voice in the visual based world of today.

Specifically, students will gain knowledge in various camera formats, image based software platforms, lighting techniques, and strategies needed to successfully navigate the photographic field. A wide range of classes include both digital and darkroom based curriculum where students will be engaged with state of the art equipment.

Whether you seek to become a skilled artist, freelance, wedding, or commercial photographer, or plan on transferring to a four-year university take the first step on your journey today at GCC

> Students should consult with an advisor prior to every semester to keep on track with their educational goals. Courses are offered in sequence with the understanding that every course is not offered every semester.

## Associate Degrees and University Transfer

Photography

## Certificates

Commercial and Freelance Photography

## Physics

Department: Physical Sciences
Contact: Keith Watt
Phone: (623) 845-3675
Email: keith.watt@gccaz.edu

Do you want to be on the cutting edge of scientific ideas and technology? If so, consider a career in physics. This branch of science is concerned with the nature and properties of matter and energy. From the subatomic to the cosmological, physics seeks to reveal and explain the splendors of the universe.

Our Physics program is designed to provide you with the first two years of a four-year curriculum if you wish to specialize in physics or are preparing to apply for professional graduate programs in various medical fields. Experienced instructors will teach you how to describe, predict, and explain real-world phenomena, utilizing a variety of different representations like mathematical, graphical, and pictorial formalisms. You'll learn how to collect and analyze experimental data, and then draw reasonable conclusions to both develop and support the laws of physics. You'll also be able to apply the principles of physics to solve problems both inside and outside the classroom.

There is a wide range of career paths depending on whether you pursue a bachelor's or graduate degree in physics - like teaching, medicine, intellectual property or patent law, science writing, science policy, energy policy, government, and management in technical fields.

Join the Physics program and take the first step toward accelerating your career.

## Associate Degrees and University Transfer

Associate in Science, Emphasis in Physics

## Why You Should Take Physic at GCC

The science of physics seeks to understand the behavior of matter and energy at the most general and fundamental level. Other sciences, e.g., chemistry and biology, build on the laws of physics and rely on many instruments originally devised by physicists.

Employment of physicists is greatest in areas that have heavy industrial concentrations and large college and university enrollments. Related careers are medical electronics, solidstate physics, production supervision, industrial sales, patent law, thermodynamics, acoustics, optics, and nuclear physics.

Transfer recommendations: This program is designed as the first two years of coursework for students intending to pursue the baccalaureate degree at a four-year institution.

Students planning a major in physics should consult with a Department Advisor to outline and plan their academic schedule in order to transfer to a senior institution and to complete degree requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, degree-seeking students may find it necessary to extend completion time lines and attend both day and evening classes.

## Departmental recommendations:

+ PHY115 University Physics I 5
+ PHY116 University Physics II 5
+ MAT220 Calculus with Analytic Geometry I 5
+ MAT230 Calculus with Analytic Geometry II 5
+ MAT241 Calculus with Analytic Geometry III 4


## Other recommendations:

+ CHM150 General Chemistry I (4) OR
+ CHM151 General Chemistry I (3) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM150AA General Chemistry I (5) OR
+ CHM151AA General Chemistry I (4) 4-5
+ CHM152 General Chemistry II (3) AND
+ CHM152LL General Chemistry II Laboratory (1)
OR
+ CHM152AA General Chemistry II (4) 4


## Political Science

Department: Social Sciences
Contact: Terri Desai
Phone: (623) 845-3987
Email: terri.desai@gccaz.edu
At all times, the political climate calls for skilled interpreters to help the public navigate new information, policies, and current events. These shepherds take the form of social science research assistants, political reporters and correspondents, political scientists, and lawyers.

As a student of the Political Science program, you'll have the opportunity to take your passion for political science and liberal arts to a local, national, or global level. Learn how to define, defend, and critique political concepts, systems, and theories while demonstrating effective communication skills for a diverse world.

Join the Political Science program today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Political Science

## Pre-Forestry

Contact: NAU School of Forestry
Phone: (928) 523-3031
Email: forestryinfo@nau.edu
A forester manages and develops forest lands and their resources for economic and recreational purposes.

Nearly two-thirds of salaried conservation scientists and foresters work for Federal, State, or local governments. The remainder worked in private industry, mainly in support activities for agriculture and forestry or in wood product manufacturing. Some are self-employed as consultants for private landowners, Federal and State governments, and forestry-related businesses.

## Associate in Arts (AA) Transfer Program for Northern Arizona University (NAU)

Transfer recommendations: Students are advised to review the reverse transfer process to complete their Associate in Arts/Associate in Business degree and the Arizona General Education Curriculum (AGEC). The following are recommended courses:

```
+ BIO181 General Biology (Majors) I
+ BIO182 General Biology (Majors) II
CHM130 Fundamental Chemistry
CHM131LL Fundamental Chemistry Laboratory
+ CHM151 General Chemistry I
+ CHM151LL General Chemistry I Laboratory
+ COM221 Oral Fluency in American Speech
ECN211 Macroeconomic Principles
ECN212 Microeconomic Principles
+ ENG101 First-Year Composition
+ ENG102 First-Year Composition
MAT125 Algebra/Trigonometry for Technology
+ MAT187 Precalculus
+ MAT206 Elements of Statistics
```


## Pre-Health

Department: Biology
Contact: Dr. Karen Conzelman
Phone: (623) 845-3612
Email: karen.ann.conzelman@gccaz.edu

Pre-Health programs are designed for students preparing for the following professional schools: medical, dental, occupational therapy, optometry, pharmacy, physical therapy, physician assistant, and podiatry. Students hoping to be admitted to a professional program should first pursue their bachelor's degree at a university. Admission to professional schools is competitive; therefore, a GPA of at least 3.0 is advisable, especially in the required prerequisite coursework in science and math. Also, many professional programs require specific entrance exams (e.g., MCAT, PCAT, GRE, etc.) and higher scores make applicants more competitive. Often prehealth students choose biology, chemistry, or biochemistry, kinesiology or exercise science as their major; however, any major is allowed as long as all the prerequisite coursework for the professional program is completed. Meeting these admission requirements may require a student with another
less aligned major to take extra courses/credits above and beyond those required for their own bachelor's degree.

Students are urged to consult with an academic advisor to create an educational plan that will best support their long term educational and career goals. Use the following link to contact a GCC Academic Advisor:

- GCC Academic Advising Online Form:
https://docs.google.com/forms/d/e/1FAlpQLSciviVy WdIgUYao3Td VaP9EgeMRud6ulPfBVEmoro gzSw/viewform

Student clubs can also provide a good way to network with other students interested in the same field as well as tap the experience of faculty advisors and invited guest speakers. Glendale Community College (GCC) has both a PreMed club and a PrePharmacy club:

- GCC PreMed Club:
gccaz.edu/student-life/clubs/premed-club
- GCC PrePharmacy Club:
gccaz.edu/student-life/clubs/prepharmacy-club

Program admission requirements are fairly uniform across the country; however, it is advisable for students to consult the website of all professional schools they are considering so they are aware of the specific requirements of each. In addition to specific coursework, many professional schools require applicants to have a minimum number of hours of volunteer or paid experience in a variety of healthcare settings. It is never too early to start putting in these kinds of clinical hours. This "real life" field experience can also be a good way for students to validate their career choice and to better identify how they fit in the health care professions. Glendale Community College's Career Services may be able to help interested individuals find such community-based opportunities.

Many professional programs also interview their top applicants to select those they wish to admit for the upcoming year. A variety of resources to help you be better prepared for such interviews are available through GCC's Career Services.

- GCC Career Services:
gccaz.edu/student-life/career-services
- GCC Career Services, Interviewing:
gccaz.edu/student-life/career-services/interviewing

More descriptive information for various fields of practice follows.

## Pre-Medical/Pre-Dental/Pre-Podiatry

A physician, whether allopathic, osteopathic, or podiatric, diagnoses, prescribes medication for, and treats diseases and disorders of the human body. Physicians often specialize in one
aspect of medical care and treatment, but there is also a need for general/primary care practitioners.

Dentists examine, diagnose, and treat ailments or abnormalities of teeth and gums as well as performing routine prophylactic procedures. Many dentists offer multiple general oral care services, but some get additional specialized training to become endodontists, dental surgeons, periodontists and/or to perform implant, reconstructive or cosmetic dentistry.

## Pre-Occupational Therapy (Pre-OT)

Occupational therapists (OTs) help people of all ages live life to its fullest by helping them promote health, and improve or maintain activities of daily living after injury, illness, or disability. Common occupational therapy interventions include helping children with disabilities to participate fully in school and social situations, helping people recovering from injury to regain life skills, and assisting older adults experiencing physical and cognitive changes improve their ability to perform daily activities.

## Pre-Optometry

An optometrist examines and determines the condition of one's eyes and prescribes non-surgical treatment to conserve or improve vision such as corrective lenses and some medication.

## Pre-Pharmacy

Pharmacists are medication specialists who advise patients on the proper use of medicines, monitor patients for therapeutic and adverse drug responses, and serve as drug therapy consultants to other health professionals. Pharmacy is a healthcare profession that offers the practitioner excellent and diverse career opportunities in community or hospital practice, clinical pharmacy, industry, education, or government.

Many professional pharmacy schools do not require the completion of a bachelor's degree for admission; such schools' entrance requirements typically include the completion of as many as 90 semester credits of prerequisite courses, including many in the sciences and mathematics. Admission is, however, generally quite competitive so completion of a bachelor's degree may be advantageous.

## Pre-Physical Therapy (Pre-PT)

Physical therapists (PTs) help people (of all ages) to rebuild strength, mobility and/or function and reduce/manage pain after an injury or other medical condition. They assess each individual's condition and then develop, monitor and adjust a treatment plan to assist in their recovery. Physical therapists may use a variety of modalities to help patients including application of heat and cold, physical manipulations and massage, ultrasound, and exercise. PTs work in a variety of medical settings including hospitals, rehabilitation centers and long-term care facilities, clinics, medical offices and patients' homes.

## Pre-Physician Assistant (Pre-PA)

Physician assistants (PAs) work in association with a doctor to conduct complete physical examinations, diagnose injury and illness, develop and manage treatment plans, and prescribe medications. Physician assistants work in a variety of medical settings and specialties; they are often a patient's principal healthcare provider.

## Pre-Law

Department: Business and Information Technology
Contact: Scott Stroher
Phone: (623) 845-3453
Email: scott.stroher@gccaz.edu
General information for students planning a career in Law: No formal pre-law course of study is required to be eligible to apply for admission to law school. The demands of law are so varied that no one course of preparation can possibly be regarded as exclusive and law schools attempt to do no more than urge students aiming toward a legal career to acquire a liberal education to the fullest sense of that term. Legal educators agree that a pre-legal education should be geared to the development of:

- A broad cultural background.
- Habits of thoroughness, intellectual curiosity, and scholarship.
- Ability to organize materials and communicate the results, both in writing and orally.

Since the attorney's principal tools are the abilities to analytically think and communicate, every student should be particularly well-grounded in the use of language. The ability to write clearly, concisely, and with a sense of style is highly desirable. Therefore, courses in English composition and literature beyond the bare minimal requirements are recommended as well as courses which develop a lucid writing style.

A broad liberal arts education which is planned to provide understanding of institutions and values with which the law deals is excellent preparation for a career in law. The habits of reading widely and writing clearly are tied closely to the development of the capacity to absorb abstract ideas and to reason systematically. Study in the areas of government, history, philosophy, psychology, sociology, economics, and literature will all contribute to the deep understanding of our social, political, and economic institutions that every good attorney must have. Law school admission committees give strong consideration to the following:

- Scores on the Law School Admission Test (LSAT). A preparation course is recommended before taking the LSAT.
- Overall academic performance for the full period of attendance in college. (Admission becomes increasingly more competitive each year and students should endeavor to keep grades at the highest possible level.)
- Breadth in the undergraduate program in addition to the major field of study. Electives should include courses in a wide range of disciplines. Courses at the undergraduate level in law are not essential since much of the material will be explored at a later time.
- Ability to write correctly, clearly, and concisely. (Many law schools require demonstration of this ability as part of their admission test.)
- General community involvement and/or personal achievement.

Many schools require character and personal references in addition to the above listed requirements. The study of law requires self-discipline and hard work which makes it important for students to develop good study habits in their academic career.

Program description: This suggested program should be considered as the first two years of a baccalaureate program. Students should select an undergraduate major in liberal arts, social sciences, or business. A business transfer program is especially recommended.

## Program recommendations: None

General electives: Students should choose a major and consult with an advisor in planning their pre-law program. The following courses are recommended:

COM100 Introduction to Human Communication

+ COM225 Public Speaking
ECN211 Macroeconomic Principles
ECN212 Microeconomic Principles
GBS205 Legal, Ethical, and Regulatory Issues in Business
+ GBS233 Business Communication
HIS103 United States History to 1865
HIS104 United States History 1865 to Present
PHI101 Introduction to Philosophy
+ PHI103 Introduction to Logic
POS110 American National Government
POS120 World Politics
PSY101 Introduction to Psychology
SOC101 Introduction to Sociology
General education requirements: Follow general education requirements for Associate in Arts, Associate in Science, or Associate in Business degrees, depending on intended transfer major. Meet with an Academic Advisor in the Glendale Community College Enrollment Center to develop an educational plan. In determining course choices, students
should be guided by the requirements of the four-year institution from which they expect to earn a baccalaureate degree.


## Programming and Mobile Applications

Department: Business and Information Technology
Contact: Bill Stewart
Phone: (623) 845-3250
Email: bill.stewart@gccaz.edu
U.S. News and World Report lists software developer as the \#1 job in America with the expected demand for positions to continue to trend upwards. We can help you prepare for this potentially lucrative and fulfilling career.

Our classes in Programming and Mobile Applications are designed to train you in mobile app programming and beyond. As a student, you'll get to do everything from identifying common uses of computers in business and other sectors of society to writing simple programs in common programming languages, designing algorithms, and becoming a pro at cascading style sheets (CSS).

We offer multiple ways to start your new journey toward a future in mobile app development. Make it happen now.

## Associate Degrees and University Transfer

Programming and Systems Analysis

## Certificates

Programming and Systems Analysis Level I
Programming and Systems Analysis Level II

## Fast Track Certificates

iOS App Development

## Psychology

Department: Psychology
Contact: Julie Morrison
Phone: (623) 845-4761
Email: julie.morrison@gccaz.edu
Psychology explains general principles that govern behavior while recognizing individual differences. Psychology spans all aspects of human development, from prenatal development to addressing the needs of an aging population. Future psychologists can envision prospective work environments in anything from educational settings to private practices, human resources to not-for-profit community agencies, and scientific research centers to mental healthcare organizations.

The Psychology program will help you gain the skills to identify interrelationships between biological, psychological, and sociocultural processes and utilize scientific findings and theories to
generate new ideas and problem solve. For a truly limitless future, the study of psychology prepares you for endless career paths.

Start your journey toward psychology and helping others today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Psychology

## Certificates

Developmental Disabilities Specialist

## Why You Should Take Psychology

Psychologists are concerned with the scientific study of behavior and mental processes. Psychology is a beneficial major or minor for students interested in education, medicine, law, social work, management, or any of the human service fields such as nursing, child care, medical technology, law enforcement, or real estate. Positions in the field of psychology as a psychologist require a graduate degree.

Employment will remain competitive in educational institutions but will show $8 \%$ to $14 \%$ growth in clinical and industry settings between 2016 and 2026. Related careers include personnel management, public relations, sports and recreation, speech pathology, special education, counseling, vocational rehabilitation, gerontology, business management, and computer science.

Program description: This program provides the first two years of a four-year curriculum for students who wish to specialize in psychological sciences or are preparing for graduate programs in psychology or related fields. With a bachelor's degree, students may pursue numerous careers such as mid- and toplevel managers, market research analysts/specialists, human resources specialists/managers, social and human service assistants, psychiatric technicians, survey researchers, and probation officers/correctional treatment specialists. Most careers in psychology require graduate work. With a graduate degree, students may pursue a number of careers, including but not limited to: psychologists (industrial-organizational, clinical, counseling, and school), research scientists, psychiatrists, neuropsychologists, statisticians, teachers, and human factors engineers

Special skill levels needed: College level reading, writing, and math skills.

## Core requirements:

PSY101 Introduction to Psychology [SB]

+ PSY230 Introduction to Statistics [CS]
+ PSY230WL Introduction to Statistics with Lab [CS]
+ PSY231 Laboratory for Statistics
+ PSY290AB Research Methods [L, SG]

Electives: The following courses are available as electives but should be chosen only sparingly by psychology majors. No more than 1-2 of these should be taken. (Some of these courses are junior-senior level upper division courses at the universities and have no lower division equivalents there. If taken at Glendale Community College, they will count as lower division credit at the universities.)

PSY132 Psychology and Culture [ $\mathrm{C}, \mathrm{G}$, SB* $^{*}$ ]
PSY143 Psychology of Sexual Orientation and Gender Identity
[ $C^{*}$ ]
PSY156 Understanding Death and Dying [SB] 3
PSY157 African/Black Psychology [SB*, C*]
PSY215 Sports Psychology

+ PSY218 Health Psychology
+ PSY235 Psychology of Gender [SB*, C*]
+ PSY240 Developmental Psychology [SB*]
+ PSY241 Understanding and Changing Behavior
+ PSY242 Understanding and Changing Behavior Lab
+ PSY243 The Psychology of Developmental Disabilities
+ PSY244 Internship in Psychology
+ PSY250 Social Psychology [SB*]
+ PSY262 Positive Psychology: The Science of Well-Being
+ PSY266 Psychological Disorders [SB*]
+ PSY267 Introduction to Forensic Psychology
+ PSY275 Biopsychology [SG*]
+ PSY277 Psychology of Human Sexuality [SB*]
+ PSY280 Industrial/Organizational Psychology [SB*]
+ PSY295AA Independent Research in Psychology
Recommendations for psychology minors: A minor in psychology fits very well as a companion discipline with a wide variety of majors. Most universities will require 5-6 psychology courses for a minor; at least two of them should be at the upper division level at the university. Students wishing to minor in psychology should take PSY101, and choose other courses from the following list, depending on university requirements:
+ PSY230 Introduction to Statistics [CS*]
+ PSY230WL Introduction to Statistics with Lab [CS]
+ PSY231 Laboratory for Statistics
+ PSY240 Developmental Psychology [SB*]
+ PSY241 Understanding and Changing Behavior
+ PSY250 Social Psychology [SB*]
+ PSY266 Psychological Disorders [SB*]
+ PSY275 Biopsychology [SG*]
+ PSY277 Psychology of Human Sexuality [SB*]
+ PSY290AB Research Methods [L, SG*]
Personal improvement and personal interest courses: With the numerous and varied demands of our complex world many of us face serious difficulties adjusting to and coping with the stresses and pressures of modern living. The following courses may be of considerable help in coping with such problems.

PSY143 Psychology of Sexual Orientation and Gender Identity [C*]
PSY156 Understanding Death and Dying
PSY157 African/Black Psychology [SB*, C*]
PSY215 Sports Psychology [SB*]

+ PSY218 Health Psychology [SB*]
+ PSY235 Psychology of Gender [SB, C*]
+ PSY241 Understanding and Changing Behavior
+ PSY243 The Psychology of Developmental Disabilities
+ PSY262 Positive Psychology: The Science of Well-Being
+ PSY277 Psychology of Human Sexuality [SB*]
*[SB] counts at Arizona State University as a Social-Behavioral Sciences general education requirement. [C] counts as a Cultural Awareness General Education requirement. [CS] counts as Computer/Statistics, [L] counts for Literacy and Critical Inquiry, and [SG] counts for Natural Sciences-General general education requirements.

Typically, psychology majors will need to take 10 or more psychology courses for graduation with a Bachelor of Arts or Bachelor of Science degree. At least five should be upper division courses at a university. Between 3-5 of those courses may be at the lower division (community college) level including the core requirements and suggested electives listed previously. Psychology majors should consult early with a departmental advisor about the math and science requirements and planning their course of study.

## Reading

Department: English, Reading, Journalism and Creative Writing Contact: Lori Walk|
Phone: (623) 845-3751
Email: lori.walk@gccaz.edu
Reading courses are offered at Glendale Community College to help students develop effective and efficient language and literacy skills for life, work, and school, such as reading and study strategies for textbooks and assessments, navigating information technology, and developing academic vocabulary. Classes include practice with fiction and non-fiction texts, helping students discern message, meaning, and method of a multitude of readings from diverse genres across disciplines.

According to the MCCCD Course Placement Chart, students may take any of the following classes from reading:

- ALT100: Develops academic language skills and critical reading skills for organizing, analyzing, and retaining material through complementary reading and writing assignments. Prepares students for college level reading and writing intensive courses as well as career-related reading and writing tasks.
- RDG100: Emphasis on reading study strategies for any introductory class in any subject area.
Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary. RDG100 is counted as elective credit toward AA and AS degrees and are transferable as elective credit to BA and BS degrees of study.
- CRE101: Develop and apply critical thinking skills through critically reading varied and challenging materials. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. CRE101 involves meaningful writing projects and qualifies as an [L] designated class toward $B A$ and $B S$ degrees as well as satisfies the AA and AS degree requirements for graduation.

Please see an academic advisor for support in selecting the appropriate classes.

## Real Estate and Real Estate Appraisal

Department: Business and Information Technology
Contact: Scott Stroher
Phone: (623) 845-3453
Email: scott.stroher@gccaz.edu
There are many rewarding careers, but it might be hard to top the feeling a real estate agent gets when connecting people with their new home. Plus, your workplace doesn't have to be an office - it can be someone's new home. And while a future in real estate and real estate appraisal can be challenging, it can also be lucrative - and we can help you get started.

If you plan on entering this worthwhile profession, start with our Real Estate and Real Estate Appraisal program. You'll get an in-depth look at real estate principles, practices, appraisals, and sales so you'll be ready to hit the housing market. Upon successful program completion, you will be prepared to take the next steps to become a real estate agent or a certified or licensed residential appraiser.

Start your career in real estate today.

## Fast Track Certificates

Commercial Real Estate
Real Estate: Prelicense

## Religious Studies

Department: Philosophy and Religious Studies
Contact: Peter Lupu
Phone: (623) 845-3747
Email: peter.lupu@gccaz.edu

For a truly unlimited subject, where you as a student have the opportunity to continue learning and exploring, consider our program in religious studies.

Our courses in religious studies allow you to focus on a wide variety of world religions - from how they developed to ways in which they are practiced now - and their political, economic, social, and geographical contexts. Not only will you explore the in-depth aspects of individual religions, you may simultaneously discover lateral paths in history, philosophy, theology, anthropology, psychology, and sociology - as well as folklore, literature, and languages.

A truly interesting field, this program is ready for students like you. Make it happen today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Religious Studies

## Why You Should Take Religious Studies

In today's global socioeconomic situation, it is important to understand and respect the differences present in a variety of ethnic and religious cultures. The academic study of religion is an excellent program for developing strong analytical, research and critical thinking skills that will contribute to success in life and career endeavors. An Associate in Arts degree with a focus in Religious Studies prepares students for a variety of career options.

Graduates often pursue careers in:

- Business/International business
- Chaplaincy
- Counseling
- Education
- Foreign service
- Journalism
- Law
- Nursing
- Public and nonprofit administration
- Social work


## Social Work

Department: Social Sciences
Contact: Terri Desai
Phone: (623) 845-3987
Email: terri.desai@gccaz.edu
It's comforting to know there are people in the world looking out for the underrepresented. Social workers come to the aid of individuals, families, and special groups to create a safer and more equitable community. A career in social work would be ideal for those looking to make a real difference in the lives of vulnerable populations - better known as your future clients.

Classes in social work prepare students for a future in aiding in the world of human services and behavioral health. You will also learn to differentiate between facts and assumptions to explain the impacts of mental health as well as institutional racism, sexism, and ageism. Envision a career bettering the lives of those affected by war, crime, domestic violence, mental illness, and refugee resettlement. And you can start right now.

Are you ready to make a difference? Begin your rewarding path toward Social Work today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Social Work

## Sociology

Department: Social Sciences
Contact: Sharon Yee
Phone: (623) 845-3734
Email: sharon.yee@gccaz.edu
Do you enjoy people-watching? Is human behavior in society interesting to you? Or do you just want to understand a little better, why we do what we do? If you're fascinated with everyday life and how the members of society conduct themselves, your path may lead to a career in sociology.

Sociology is the study of human social relationships and institutions. Sociology's subject matter is diverse, ranging from crime to religion, from the family to the state, from sports to deviance, from drugs to sex, from the divisions of race and social class to the shared beliefs of a common culture, and from social stability to radical change in whole societies. Unifying the study of these diverse subjects is sociology's purpose of understanding how human action and consciousness both shape and are shaped by surrounding cultural and social structures.

Sociology courses help students learn how to think critically about human social life, how to design good social research projects, and how to formulate and present their research findings. Students trained in sociology also know how to help others understand the way the social world works and how it might be changed for the better. Most generally, they have learned how to think, evaluate, and communicate clearly, creatively, and effectively. These are all abilities of tremendous value in a wide variety of vocational callings and professions. Imagine a future with multiple career options such as, but not limited to, a marketing consultant, high school teacher, probation officer, research associate, public health consultant, human resources specialist, social worker, or sociologist.

Make it happen. Start your journey in sociology today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Sociology

## Sustainability

Department: Social Sciences
Contact: Michael Strong
Phone: (623) 845-3602
Email: michael.strong@gccaz.edu

Sustainability is not just a buzzword, it's a way of life - and a possible career for you. Environmental studies allow you to explore the current and future interactions between human and natural systems. With a focus in Sustainability, you can analyze ideas of sustainable development at a local, regional, and global level - and maybe have a say in the best possible uses of our planet's resources.

What role can you take on in this vital field? Students may go on to be sustainability specialists, compliance managers, environmental scientists, and soil and water conservationists. Familiarity with sustainability can also boost your career in adjacent fields like environmental reporting, city and regional planning, landscape architecture, construction, interior design, urban planning, and business.

It can start today. Make your future in sustainability happen.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Sustainability and Environmental Studies

## Certificates

Sustainability

## Sustaining and Advancing Indigenous Nations

Department: Social Sciences
Contact: Sharon Yee
Phone: (623) 845-3734
Email: sharon.yee@gccaz.edu

Do you have an intense interest in the contemporary issues that challenge indigenous nations? Would you like to spend your days assessing the political, legal, cultural, and economic systems of indigenous nations and the impact the United States' laws and American Indian policy have on their sovereignty? If so, then consider joining our Sustaining and Advancing Indigenous Nations program.

While studying our course on sustaining and advancing indigenous nations, you'll get to explore the political, legal, economic, and social status of Indigenous people and their respective communities - both past and present. Our experienced instructors will showcase inherent Indigenous sovereignty, self-governance, self-determination, Native

American law, and policies that affect development on indigenous lands in our current environment.

Don't wait. Start your future in Sustaining and Advancing Indigenous Nations today.

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in American Indian Studies

## Theatre

Department: Performing Arts
Contact: David Seitz
Phone: (623) 845-3385
Email: david.seitz@gccaz.edu
A well-made production, be it live theatre or a skillfully crafted film, is not easy to do. But for some, the foundational skills needed for quality production design and technique is an appealing challenge.

If the arts of theatre and film have always held your interest, why not make a career of it? Our experienced theatre and film school instructors will teach you the world of technical theatre, how to work on professional stage productions and the art of filmmaking. Aside from the experience you'll gain from theatre and film making, you will develop a portfolio of academic work to showcase throughout your artistic career.

Now's the time to make it happen. Start your education in theatre today.

## Associate Degrees and University Transfer

Associate in Arts, Fine Arts, Emphasis in Theatre

## Certificates

Technical Theatre: Audio Technician
Technical Theatre: Costuming

## Fast Track Certificates

Technical Theatre: Stage Crew Technician

## Why Should You Take Theatre at GCC

Theatre personnel pursue careers as performers, teachers, stage managers, actors, theatre critics and journalists, theatre historians, dramaturgs, writers, directors, producers, sound designers, set designers, lighting designers, media designers, costume designers, props designers, hair and makeup designers, technicians, and in theatre related business and professional work.

This program provides the first two years of theatre required for a bachelor's degree in Theatre Arts, Theatre Performance, Theatre Design-Technical-Production, and Musical Theatre.

Every theatre major pursuing the AAFA, Emphasis in Theatre or Musical Theatre degree has an opportunity to participate in at least one production each semester. There are 1-4 large and small productions produced each semester through the mainstage, black box, and other alternative venues Glendale Community College (GCC) Theatre has to offer.

Most courses in the theatre program are open to all students. There are some courses which have prerequisites, and those may be found in the course descriptions.

The Theatre and Musical Theatre programs offer class instruction in acting, directing, production, theatre and cinema and television history and analysis, theatre design areas, theatre tech, piano, voice, and many others. In addition, the program is in collaboration with professional theatre groups around the state providing occasional internship and joint venture opportunities. The Theatre Programs are actively affiliated with the Kennedy Center American College Theater Festival (KCACTF), Maricopa County Community College District's Artists of Promise, and several other scholarship competitions. GCC Theatre also has an active chapter of Delta Psi Omega Drama Club - open to all GCC Students.

Students who major in Theatre at GCC should follow the curricula as outlined. Various universities and colleges; however, demand specific subjects for degree requirements.

Students planning to transfer or continue their work at other institutions should consult their GCC Theatre Advisor and the catalogs of the universities that they plan to attend.

Due to limited course offerings, students should consult with a Department Advisor in planning their academic schedule in order to complete degree requirements in an expedient manner. See AAFA, Emphasis in Theatre; AAFA, Emphasis in Musical Theatre; CCL in Technical Theatre: Audio Production; CCL in Technical Theatre: Costuming; and CCL in Technical Theatre: Stage Crew Technician for specific course requirements.

## Video Game Production

Department: Business and Information Technology
Contact: Bill Stewart
Phone: (623) 845-3250
Email: bill.stewart@gccaz.edu
A career in the game industry may be a dream job for many, but a possible career for you. A future in Video Game Production may be your calling.

Our Video Game Production program offers interdisciplinary coursework that prepares you to skillfully combine the art and science of video game production. Courses cover business concepts, game technology and narrative, music, sound design,
and animation. Our experienced instructors will provide you with the abilities needed to plan, design, and produce video games.

Upon completion, you will be qualified to apply for positions in fields like level designer, production artist, character modeler, character animator, game designer, game developer, mobile game developer, commercial artist, game writer, and sound designer.

Make it happen. Start your career in Video Game Production today.

## Associate Degrees and University Transfer

Video Game Production

## Certificates

Video Game Production: Audio and Sound
Video Game Production: Coding and Scripting
Video Game Production: Game Art
Video Game Production: Game Narrative

## Web Design and Web Development

Department: Business and Information Technology
Contact: Bill Stewart
Phone: (623) 845-3250
Email: bill.stewart@gccaz.edu
The exciting field of web design and development is one of the most rapidly growing and well-paying careers available! If you have always been interested in design, technology, or coding, this is your chance to develop your skills for a potentially lucrative career.

Our Web Design and Web Development program provides a foundation in graphic design, storyboarding, scripting, UI/UX, content management systems, and e-commerce solutions. With a solid base from which to grow, you can then specialize and develop your skills in diverse areas like digital image creation and manipulation, audio and video editing, character animation, database integration, programming, server administration, mobile app development, and more.

We provide state-of-the-art computer labs, skilled instructors, and hands-on experience with modern technologies.

Learn how to design and create sophisticated and engaging websites. Begin your journey toward a career in web design and development today.

## Associate Degrees and University Transfer

Web Design/Development

## Certificates

Adobe Foundations: Animation and Graphics Production

Web Design
Web Development
Web Foundations

Fast Track Certificates
Web App Development

## Women and Gender Studies

Department: Philosophy and Religious Studies
Contact: Peter Lupu
Phone: (623) 845-3747
Email: peter.lupu@gccaz.edu
Do you have a talent for thinking critically, analyzing problems, and effectively communicating your findings? Do you have a passion for feminism and gender identities in a cultural and historical aspect? If so, consider a future in Women and Gender Studies.

As a student of our Women and Gender Studies program, you'll get to discuss and critique the historical and contemporary theories and practices of feminism and gender identities. Our experienced instructors will ask you to delve into the experiences and perspectives of women and explore cultural and global issues of equality during this intensive interdisciplinary liberal arts program. Courses cover gender, history, culture, class, race, ethnicity, and sexuality.

Upon completion, you may seek professional roles like a child, family, and school social worker, human resources specialist, lawyer, postsecondary instructor, and more.

Make it happen. Start your work in Women and Gender Studies today!

## Associate Degrees and University Transfer

Associate in Arts, Emphasis in Women and Gender Studies

Fields of Interest organize degrees and certificates that share similar areas of study, allowing you to identify your skills and interests to find a career path that's best for you.

## Applied Technology

The Applied Technology Field of Interest programs give you the hands-on skills you need to design, develop, or repair high-tech equipment and processes. Students studying in these areas often find work after completing introductory classes and are able to expand their knowledge, skills, and education while earning a livable wage.

Maricopa Community Colleges offers programs in automotive repair, HVAC, airline operations, CAD, construction, welding, electronics repair, electrical technologies, and much more. Classes are scheduled to accommodate both full-time and working students and align to industry standards.

## Associate Degrees and University Transfer

- Architectural and Civil CAD Technology
- Automotive Service


## Certificates

- Automotive Engine Management and Repair
- Automotive Maintenance and Light Repair
- Automotive Service
- CAD Application


## Fast Track Certificates

- Automotive Automatic Transmission and Transaxle
- Automotive Brake Systems
- Automotive Chassis
- Automotive Drive Train
- Automotive Electrical, Heating, Ventilation and Air Conditioning Systems
- Automotive Electronic/Electrical Systems
- Automotive Engine and Operations Management
- Automotive Engine Repair
- Automotive Heating, Ventilation and Air Conditioning Systems
- Automotive Manual Drive Train and Axles
- Automotive Steering and Suspension
- CAD Fundamentals


## Behavioral Science and Human Services

If you are motivated to help people, serve your community, and improve the lives of those in need, consider the Behavioral

Science and Human Services Field of Interest. Professionals in this field typically work with community members to identify problems and create and implement solutions.

If you aspire to be a first responder, work in the court system, or provide counseling or social work/advocacy services, this Field of Interest offers you the training you need. Some Behavioral Science and Human Services students may go directly into positions as EMTs, paralegals, or behavioral health technicians, while others may pursue a bachelor's degree at a four-year institution.

## Associate Degrees and University Transfer

- Administration of Justice Studies
- Associate in Arts, Emphasis in Counseling and Applied Psychological Science
- Associate in Arts, Emphasis in Criminal Justice
- Associate in Arts, Emphasis in Family Life Education
- Associate in Arts, Emphasis in Law and Policy
- Associate in Arts, Emphasis in Political Science
- Associate in Arts, Emphasis in Psychology
- Associate in Arts, Emphasis in Social Work
- Behavioral Sciences
- Fire Science
- Fire Service Management
- Forensic Science
- Law Enforcement Training


## Certificates

- Advanced Behavioral Sciences
- Child and Family Organizations Management and Administration
- Crime Scene Investigation
- Developmental Disabilities Specialist
- Emergency Management
- Fingerprint Identification and Photography
- Fire Service Management
- Firefighter Operations
- Foundations of Behavioral Sciences
- Homeland Security
- Law Enforcement Investigation
- Law Enforcement Training Academy
- Leadership in Public Safety Organizations
- Non-Sworn Fire Service Professional


## Fast Track Certificates

- Administration of Justice
- Corrections
- Driver Operator
- Law Enforcement
- Legal Studies
- Victimology


## Business, Entrepreneurialism, and Management

Because our global economy starts with the small business on the corner and extends to the world's most valuable companies, we've designed our business pathway to give you the knowledge and experience you need to be an economic and social leader at every level of your career.

The Business Field of Interest is designed for students who have an interest in business management and administration, finance, hospitality and tourism, culinary arts, and marketing. Programs and majors in this pathway lead to careers in accounting, management, sales, marketing, human resources, owning and operating a small business, and customer service.

## Associate Degrees and University Transfer

- Accounting
- Administrative Professional
- Associate in Business, General Requirements
- Associate in Business, Special Requirements
- General Business
- Management
- Marketing and Sales
- Organizational Management
- Retail Management


## Certificates

- Accounting
- Administrative Professional
- Business Administration Fastrack
- Enrolled Agent
- Entrepreneurial Studies Level II
- General Business
- Human Resources Management
- Management
- Marketing
- Organizational Leadership
- Retail Management
- Securities Industry Essentials
- Small Business Management Level II
- Social Media Marketing


## Fast Track Certificates

- Certified Bookkeeping
- Commercial Real Estate
- Entrepreneurial Studies Level I
- Real Estate: Prelicense
- Security Industry Essentials: Pre-licensure
- Small Business Management Level I


## Computer and Information Technology

As technology evolves and data management systems become increasingly complex, the demand for highly skilled technology professionals continues to grow.

In the Computer and Information Technology Field of Interest, you can explore careers in gaming, programming, technology support, web design and development, cybersecurity, and more. Maricopa Community Colleges offers advanced laboratories, modern equipment, internships, and flexible and specialized classes where you will learn about computing hardware and software, web-based platforms, networks, telecommunications systems, and other innovative technology. Maricopa Community Colleges also makes it easy for you to transfer to a four-year program through our partnerships with over 40 colleges and universities nationwide.

## Associate Degrees and University Transfer

- Associate in Science, Emphasis in Computer Science
- Cybersecurity
- Information Security
- Information Technology
- Network and Systems Administration
- Programming and Systems Analysis
- Video Game Production
- Web Design/Development


## Certificates

- Adobe Foundations: Animation and Graphics Production
- Amazon Web Services Cloud Associate
- Amazon Web Services Cloud Specialist
- Cisco Certified Network Professional: Enterprise
- Cisco Network Administration and Security
- Cisco Network Administration: CCNP
- Critical Infrastructure
- Cyber Engineering
- Cyber Operations
- Cybersecurity Fundamentals
- Desktop Support
- Information Security Technology
- Microsoft Office Professional
- Microsoft Office Specialist
- Microsoft System Administration
- Programming and Systems Analysis Level I
- Programming and Systems Analysis Level II
- Video Game Production: Audio and Sound
- Video Game Production: Coding and Scripting
- Video Game Production: Game Art
- Video Game Production: Game Narrative
- VMware Network Administrator
- Web Design
- Web Development
- Web Foundations


## Fast Track Certificates

- Amazon Web Services Cloud Practitioner
- Cisco Certified Network Professional: Enterprise Advanced Routing and Services
- Cisco Certified Network Professional: Enterprise Core
- Cisco Network Administration: CCNA
- Computer System Configuration and Support
- Computer System Configuration and Support, Linux
- Computer System Configuration and Support, Network
- Computer System Configuration and Support, Security
- iOS App Development
- Linux Associate
- Linux System Administration
- Microsoft Desktop Associate
- Red Hat Linux Administrator
- Red Hat Linux Engineer
- VMware Foundations
- VMware Systems Administrator
- Web App Development


## Culture and Society

Programs in the Culture and Society Field of Interest are focused on acquiring a deep understanding of humanity, society, and human expression. These programs foster critical and analytical thinking and create flexible problem solvers who are ready to tackle complex global issues.

Our Culture and Society programs are also designed for easy transfer to a four-year college, and our students are prepared for a broad range of careers, including marketing, postsecondary teaching, law, translation, government law agencies, and private and government research groups and think tanks.

## Associate Degrees and University Transfer

- Associate in Arts, Emphasis in American Indian Studies
- Associate in Arts, Emphasis in Anthropology
- Associate in Arts, Emphasis in Communication
- Associate in Arts, Emphasis in Economics
- Associate in Arts, Emphasis in English (Creative Writing)
- Associate in Arts, Emphasis in English (Literature)
- Associate in Arts, Emphasis in History
- Associate in Arts, Emphasis in Humanities
- Associate in Arts, Emphasis in Information Studies and eSociety
- Associate in Arts, Emphasis in Japanese
- Associate in Arts, Emphasis in Journalism and New Media Studies
- Associate in Arts, Emphasis in Philosophy
- Associate in Arts, Emphasis in Religious Studies
- Associate in Arts, Emphasis in Sociology
- Associate in Arts, Emphasis in Spanish
- Associate in Arts, Emphasis in Women and Gender Studies


## Certificates

- Chicana and Chicano Studies
- Communication Competence in the Workplace
- Communication Skills for Non-Native English Speakers
- Creative Writing
- Language Studies
- Oral Communication Fluency for Non-Native English Speakers


## Education

If you love learning and want to help students discover their potential, the Education Field of Interest is for you. With so many Education certificates and degrees to choose from at Maricopa Community Colleges, you're sure to discover one that excites you.

Specialize in early childhood education, K-12 education, multicultural education, eLearning design, and more. While studying education can prepare you to be a classroom instructor at virtually any academic level, becoming a teacher isn't your only career option. You can also learn to design instructional media and materials, work as a school administrator, become a librarian, or provide needed training for workers re-entering the workforce. No matter which path you choose, a background in education can prepare you for a rewarding - and meaningful - career.

## Bachelor's Degrees

- Elementary Education and Special Education


## Associate Degrees and University Transfer

- Associate in Arts, Elementary Education
- Associate in Arts, Emphasis in Early Childhood Education
- Associate in Arts, Emphasis in Educational Studies Early Childhood
- Associate in Arts, Emphasis in Secondary Education
- Associate in Science, Emphasis in Secondary Education
- Early Childhood Education


## Certificates

- Early Childhood Education
- Foundations of Early Childhood Education


## Fast Track Certificates

- Infant and Toddler Development


## Health Sciences

If you want to help people live better, safer, healthier lives, consider the Health Sciences Field of Interest (FOI).

Our Health Sciences degrees and certificates are designed to give you comprehensive training for health-related work in the hospital, healthcare, or exercise and fitness settings. In addition to preparing you for employment, the Health Sciences FOI also fully prepares you to transfer to a four-year program. So, whether you want to be a nurse, an EMT, a physical therapist, or a personal trainer, Maricopa Community Colleges' programs give you the flexibility you need to pursue your goals.

## Associate Degrees and University Transfer

- Associate in Arts, Emphasis in Community Health
- Associate in Arts, Emphasis in Exercise Science
- Associate in Arts, Emphasis in Nutritional Science
- Associate in Arts, Emphasis in Speech and Hearing Science
- Exercise Science: Health, Fitness, and Sports Performance
- Nursing
- Paramedicine


## Certificates

- Community Health Paramedicine
- Critical Care Paramedicine
- Emergency Medical Technology Comprehensive
- Paramedicine
- Personal Training
- Personal Training: Advanced
- Tactical Emergency Casualty Care


## Fast Track Certificates

- Emergency Medical Technology
- Nurse Assisting


## Science, Technology, Engineering and Mathematics

If you want to work in a lab, design electronics, become a pharmacist or doctor, or play with numbers all day, then the Science, Technology, Engineering, and Mathematics (STEM) Field of Interest might be right for you. Maricopa Community Colleges' STEM degrees and certificates can help you prepare for a career where you can use your skills to solve problems and discover new frontiers. STEM careers involve critical thinking and creative problem solving through research and design.

Maricopa Community Colleges can get you started on the path to becoming a doctor, pharmacist, science researcher, data scientist/statistician, physicist, engineer, and more. You can also earn certificates in biotechnology and biosciences, electrical engineering, nanotechnology, and more. Many of the skills you'll acquire in your STEM coursework can be applied to a variety of fields, like computer science, healthcare, and even sports medicine.

## Associate Degrees and University Transfer

- Associate in Arts, Emphasis in Geography
- Associate in Arts, Emphasis in Mathematics
- Associate in Arts, Emphasis in Sustainability and Environmental Studies
- Associate in Science, Emphasis in Astronomy
- Associate in Science, Emphasis in Biochemistry
- Associate in Science, Emphasis in Biological Sciences
- Associate in Science, Emphasis in Chemistry
- Associate in Science, Emphasis in Engineering
- Associate in Science, Emphasis in Geography Meteorology
- Associate in Science, Emphasis in Geology
- Associate in Science, Emphasis in Physics
- Biotechnology and Molecular Biosciences
- Engineering Technology


## Certificates

- Sustainability


## Visual and Performing Arts

If you are a creative thinker and like to communicate ideas through visual art, design, dance, music, or theatre, the Visual and Performing Arts Field of Interest may be the right choice for you.

Maricopa Community Colleges' Visual and Performing Arts students gain hands-on foundational skills in their chosen mode of expression, including studio art, fashion design, interior design, acting, theatre production, vocal and instrumental
performance, and film and audio production. They also develop cultural awareness and the communication, creative, and critical thinking skills necessary for success in a variety of fields. Students in the Visual and Performing Arts FOI may seek direct employment as artists, musicians, designers, actors or audio producers, or they may pursue a bachelor's or graduate-level degree for a career in teaching, art direction, theatre production, fashion or interior design, media arts, and film.

## Associate Degrees and University Transfer

- Animation and Time-Based Media
- Associate in Arts, Fine Arts, Emphasis in Art
- Associate in Arts, Fine Arts, Emphasis in Dance
- Associate in Arts, Fine Arts, Emphasis in Music
- Associate in Arts, Fine Arts, Emphasis in Musical Theatre
- Associate in Arts, Fine Arts, Emphasis in Theatre
- Audio Production Technologies
- Digital Media Arts
- Film and Media Production
- Music Industries: Music Business
- Photography


## Certificates

- Animation
- Audio Production Technologies
- Commercial and Freelance Photography
- Documentary Film Production
- Music Business I
- Music Business II
- Technical Theatre: Audio Technician
- Technical Theatre: Costuming


## Fast Track Certificates

- Technical Theatre: Stage Crew Technician


## Degrees

## Bachelor's Degree

A Bachelor of Arts (BA) is an undergraduate college degree that requires students to complete a 35-38 credit of general education courses (AGEC) along with requirements and electives related to a major such as education. A minimum of 120 credits in these courses is required to be awarded a bachelor's degree. The BA degree prepares students to continue their education at the graduate level, complete requirements for disciplinary certification, and/or pursue a wide variety of careers.

## Elementary Education and Special Education

Major Code: 9301
Total Credits: 120
Academic Department: Social Sciences
Program of Study: Education
Field of Interest: Education
Description: The Bachelor of Arts (BA) in Elementary Education and Special Education (BAEE/SPED) provides an experiential four-year curriculum in Elementary Education (K-8) and Special Education (K-12). This program prepares pre-service teachers to educate diverse learners. Upon completion of the BAEE/SPED, a student will be eligible to seek the Standard Arizona Teaching Certificate in Elementary Education (K-8), Standard Arizona Teaching Certificate in Special Education (K-12), and the Structured English Immersion Endorsement.

Program Notes: Students must earn a grade of C or better in each course in the program. Students must complete the lowerdivision courses with a cumulative GPA of 2.50 or better and upper-division courses with a cumulative GPA of 3.00 or better.

MAT256 (Investigating Quantity: Number, Operations and Numeration Systems) requires an understanding of algebraic concepts that are not among the learning outcomes of MAT14+ (College Mathematics), so to ensure that a student is adequately prepared to be successful in MAT256, prerequisites have been established based on course placement. A student that tests into MAT14+ or lower must take MAT115 (College Algebra Prep) or MAT12+ (Intermediate Algebra) as well as MAT14+ prior to MAT256. Students that test into MAT15+ (College Algebra/Functions) can meet MAT256 prerequisites by taking MAT15+ or MAT14+.

Arizona state teaching certification requirements include courses on the constitutions of the United States and Arizona. Taking GCU/POS113 (United States and Arizona Social Studies) for [SB] fulfills this requirement completely. Students who instead take HIS103 (United States History to 1865) or POS110
(American National Government) for [SB] should consider taking POS221 (Arizona Constitution) as a Content Area Elective so they have completed study of both constitutions. POS220 (U.S. and Arizona Constitution) meets state certification requirements for both constitutions but does not meet [SB].

As indicated in their course notes, students will be required to complete field experiences in K - 12 classrooms in select courses. Field experiences are only available during the traditional K-12 public school calendars.

Licensing Disclosures: The Bachelor of Arts in Elementary Education and Special Education degree is designed to meet the coursework requirements for a certified elementary education, K-8 teacher and special education in mild/moderate disabilities, K -12 teacher in the State of Arizona. For students seeking certification or licensure in a state other than Arizona, you may need to fulfill additional coursework such as state-specific history and constitution coursework prior to applying for your certification or licensure, and additional requirements including but not limited to: obtaining a fingerprint clearance card, and passing licensure or certification exams.

Admission Criteria: Formal application and admission to the bachelor's degree Teacher Education Preparation Program is required to begin upper-division coursework.

Completion of Associate in Arts, Elementary Education (AAEE) OR coursework equivalent to requirements of Arizona General Education Curriculum (AGEC), MAT256, MAT257, EDU221, and (EED222 or EDU222).

Completion of the Arizona Constitution and United States Constitution course(s). Refer to the program notes for details.

Minimum 2.50 cumulative grade point average (GPA). Refer to the program notes for details.

Valid Identity Verified Prints (IVP) Fingerprint Clearance Card
Names of two professional or academic references (evaluation forms will be provided to the references directly as a part of the application)

Passing score on the Arizona Educator Proficiency Assessments (AEPA), Elementary Subtest 1 and 2

The Program reserves the right to deny admission or readmission of an applicant if the applicant was dismissed from any program for issues relating to academic integrity and/or professional responsibility and ethical standards.

Conditional Admissions into the Teacher Education
Preparation Program: Teacher candidates may be conditionally admitted if all outlined admissions criteria are met except the valid Identity Verified Prints (IVP) Fingerprint Clearance Card. Contact the Program Director or Department/Division Chair for further information.

## Required Courses

Credits: 77-79
Students must complete the following lower-division courses with a minimum cumulative grade point average (GPA) of 2.50.

+ EDU204 Fine Arts in Educational Settings 3
EDU221 Introduction to Education 3
EDU222 Introduction to the Exceptional Learner 3
EDU225 Professionalism and Ethics in Education 1
EDU230 Cultural Diversity in Education 3
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
+ MAT256 Investigating Quantity: Number, Operations and Numeration Systems 4
+ MAT257 Investigating Geometry, Probability and Statistics 4

Students must complete the following upper-division courses with a minimum cumulative grade point average (GPA) of 3.00 .

+ EDU337 Structured English Immersion in Grades K-8 3
+ EDU367 Science of Reading with Systematic Phonics Instruction in Grades K-8 3
+ EDU368 Reading Instructional Practices, Interventions, and Assessments in Grades K-8 3
+ EDU372 Educational Psychology for Teachers (Grades K-12) 3
+ EDU427 Social Studies Teaching Methods and Pedagogical Strategies for Grades K-8 3
+ EDU428 English Language Arts Teaching Methods and Pedagogical Strategies for Grades K-8 3
+ EDU429 Science Teaching Methods and Pedagogical Strategies for Grades K-8 3
+ EDU431 Mathematics Teaching Methods and Pedagogical Strategies for Grades K-8 3
+ EDU477 Student Teaching: Elementary (Grades K-8) 6
+ EDU487 Professional Seminar: Current Trends in Elementary and Special Education 2
+ SPE341 Special Education: Language Development and Disorders 2
+ SPE343 Special Education: Effective Collaboration and Communication Practices 1
+ SPE376 Special Education: Classroom Management and Behavioral Analysis 3
+ SPE409 Special Education: Law, Policy, and Practice 3
+ SPE422 Special Education: Mild to Moderate Disabilities 4
+ SPE424 Special Education: Assessment and Eligibility of Exceptional Learners 4
+ SPE477 Student Teaching: Special Education (Mild to
Moderate Disabilities) 6


## Restricted Electives

Credits: 8

A minimum of eight (8) credits are required to satisfy the Electives for Arizona Professional Teacher Standards: three (3) credits in an additional Education course and a minimum of five (5) credits in Content Area Electives.

Courses must transfer to all public Arizona universities as Elective Credit, Departmental Elective, or Equivalent to a university course as indicated in the Arizona Course Equivalency Guide in effect when the course is taken. Courses identified as Non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.

Select one (1) additional EDU course (except EDU250; may not select courses listed in Required Courses):

Recommended:
EDU110 Education in Film (3) OR
EDU220 Introduction to Serving English Language Learners (ELL)
(3) OR

EDU236 Classroom Relationships (3) OR
EDU/HUM/STO292 The Art of Storytelling (3) 3

Choose any combination from the following list of courses and prefixes to total a minimum of five (5) credits of additional coursework. Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses.

Content Area Electives: Select a minimum of five (5) credits from the following:

ARH+++ Any ARH Art Humanities course(s) 3
ART+++ Any ART Art course(s) 3
BPC+++ Any BPC Business-Personal Computers course(s) 3 CFS/ECH176 Child Development 3
CFS205 Human Development 3
CIS+++ Any CIS Computer Information Systems course(s) 3
ECN+++ Any ECN Economics course(s) 3
EDU+++ Any EDU Education course(s) 3 (except EDU204, EDU221, EDU222, EDU225, EDU230, and EDU250)
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
ENG+++ Any ENG English course(s) 3
ENH+++ Any ENH English Humanities course(s) 3
GCU+++ Any GCU Cultural Geography course(s) 3
GPH+++ Any GPH Physical Geography course(s) 3
HIS+++ Any HIS History course(s) 3

MAT+++ Any MAT Mathematics course(s) higher than
MAT142 (except MAT256 and MAT257) 3-5
MHL+++ Any MHL Music: History/Literature course(s) 3
MTC+++ Any MTC Music: Theory/Composition course(s) 3
POS+++ Any POS Political Science course(s) 3
THE+++ Any THE Theatre course(s) 3
THF+++ Any THF Theatre and Film course(s) 3
THP+++ Any THP Theatre Performance/Production course(s) 3
Any Foreign Language course 3-5
Any Natural Science course 1-4

## General Electives

Select courses 100 -level or higher to complete a minimum of 120 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify additional coursework that best aligns with academic and professional goals.

## Arizona General Education Curriculum (AGEC-A)

Credits: 35-38
A single course with an [HU], [SB], [L], or [SG]/[SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

## First-Year Composition [FYC] (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Literacy and Critical Inquiry [L] (3 credits)

+ COM225 Public Speaking 3


## Mathematics [MA] (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6)
OR
+ MAT187 Precalculus (5)
OR
Higher approved general education course in the Mathematical Applications [MA] area for which MAT15+ OR MAT187 is a prerequisite (3-5) 3-6

Note: MAT182, MAT206, MAT256, MAT257 do NOT meet this requirement.

Computer/Statistics/Quantitative Applications [CS] (3 credits)
BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) OR EED/EDU115 Digital Literacy for Teaching and Learning in Education (3) 3
(EED/EDU115 recommended)
Humanities, Arts and Design [HU] (6 credits)
EDU/ENH291 Children's Literature (3) OR
ENH110 Introduction to Literature (3) OR

+ ENH241 American Literature Before 1860 (3) OR
ENH242 American Literature After 1860 (3) OR
+ HUM250 Ideas and Values in the Humanities: Early
Civilizations to the Renaissance (3) OR
+ HUM251 Ideas and Values in the Humanities: Renaissance to the Contemporary World (3)
AND
ARH100 Introduction to Art (3) OR
ARH101 Art from Prehistory Through Middle Ages (3) OR
ARH102 Art from Renaissance to Modernism (3) OR
DAH100 Introduction to Dance (3) OR
DAH201 Dance, Culture, and Global Contexts (3) OR
DAH250 Dance in Popular Culture (3) OR
MHL140 Survey of Music History (3) OR
MHL145 American Jazz and Popular Music (3) OR
MHL146 Survey of Broadway Musicals (3) OR
MHL153 Rock Music and Culture (3) OR
THE111 Introduction to Theatre (3) OR
+ THE220 Modern Drama (3) 6
(EDU/ENH291 recommended)


## Social-Behavioral Sciences [SB] (6 credits)

Select one (1) of the following US History/Government courses. These courses satisfy the United States Constitution requirement for state teacher certification.

GCU/POS113 United States and Arizona Social Studies (3) OR
HIS103 United States History to 1865 (3) OR
POS110 American National Government (3)
AND
CFS/ECH176 Child Development (3) OR
CFS205 Human Development (3) OR
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
GCU121 World Geography I: Eastern Hemisphere (3) OR
GCU122 World Geography II: Western Hemisphere (3) OR
HIS104 United States History 1865 to Present (3) OR
PSY101 Introduction to Psychology (3) 6
(CFS/ECH176 recommended)

## Natural Sciences [SG]/[SQ] (8 credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of four (4) credits each. At least four (4) credits must be
designated as [SQ]. Eight (8) credits of [SG] will not satisfy this requirement.

Life Sciences: Select four (4) credits of [SQ] or [SG] in any BIO Biology course(s) (4)
AND
Physical Sciences or Earth/Space Sciences: Select four (4) credits of [SQ] or [SG] from one of the following prefixes:

AGS+++ Any AGS Agricultural Science course(s) (4) OR
ASM+++ Any ASM Anthropology course(s) (4) OR
AST+++ Any AST Astronomy course(s) (4) OR
CHM+++ Any CHM Chemistry course(s) (4) OR
GLG+++ Any GLG Geology course(s) (4) OR
GPH+++ Any GPH Physical Geography course(s) (4) OR
PHS+++ Any PHS Physical Science course(s) (4) OR
PHY+++ Any PHY Physics course(s) (4) 8

## Awareness Areas

Credits: 0-3
These requirements may be shared with some courses used to meet AGEC Requirements or Restricted Electives area.

## Cultural Diversity in the US [C] (0 credits)

Met by EDU222 and EDU230 in Required Courses area.

## Historical/Global Awareness [H]/[G] (0-3 credits)

Any approved general education course with the Historical [H] or Global [G] awareness area designation.

## MCCCD Additional Requirements

## Credits: 0

Courses in this area may also be applied to the AGEC Core Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

## Oral Communication (COM) (0 credits)

Met by COM225 in the Literacy and Critical Inquiry [L] area.
For more information regarding the BAEE/SPED, contact Heather Merrill at heather.merrill@gccaz.edu or (623) 8453768.

## Associate in Applied Science

The associate degree gives you the opportunity for an in-depth study of your chosen field. Many of our associate degrees will also transfer to a four-year university upon graduation. With these, you can complete most of your general education coursework at Maricopa Community Colleges and have guaranteed acceptance to one of our over 40 university and college partners to complete your bachelor's degree.

Be sure to check with your advisor if you plan to move on to a four-year university to ensure your degree program credits will successfully transfer.

Students at any Maricopa Community College may need to complete courses at more than one of our colleges.

## Accounting

Major Code: 3149
Total Credits: 62-73
Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance Field of Interest: Business, Entrepreneurialism and Management

Description: The Associate in Applied Science (AAS) in Accounting program is designed to provide fundamental skills for individuals planning to enter the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, payroll clerk, credit clerk, bookkeeper, accounting intern, tax preparation or comparable positions. This program may prepare students for certification in Certified Bookkeeper (CB), Enrolled Agent (EA), and Certified Payroll Professional (CPP). Certificates of Completion (CCL) in Accounting and Enrolled Agent are available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

Consultation with an Academic Advisor is recommended for course selection.

## Required Courses

Credits: 34-39
ACC105 Payroll, Sales and Property Taxes (3) OR

+ ACC222 Payroll Accounting (3) 3
ACC111 Accounting Principles I (3) AND
+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3) 6-9
ACC115 Computerized Accounting 3
ACC121 Individual Tax Preparation (3) OR
+ ACC221 Tax Accounting (3) 3

```
+ ACC219 Intermediate Accounting I 3
CIS105 Survey of Computer Information Systems 3
CIS114DE Excel Spreadsheet 3
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
GBS120 Workplace Communication Skills (3) OR
+ GBS233 Business Communication (3) }
GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
Restricted Electives
Credits: }
Students must select six (6) credits from the list below:
ACC+++ Any additional ACC Accounting course(s) except
ACC111, ACC112, ACC211, ACC212, ACC230, ACC240 0-6
GBS131 Business Calculations 3
+ GBS220 Quantitative Methods in Business 3
+ GBS221 Business Statistics 3
GBS261 Investments I 3
MGT101 Techniques of Supervision (3) OR
MGT175 Business Organization and Management (3) OR
MGT229 Management and Leadership I (3) }
```


## General Education Requirement

```
Credits: 22-28
```


## GENERAL EDUCATION CORE

```
Credits: 12-18
```


## First-Year Composition (6 credits)

```
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3)
AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
```


## Oral Communication (3 credits)

```
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
```


## Critical Reading (0-3 credits)

```
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent by assessment (0) 0-3
```


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design [HU] area (3) 3

Social-Behavioral Sciences (3 credits)
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Administration of Justice Studies

Major Code: 3181
Total Credits: 61-65

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Sciences and Human Services

Description: The Associate in Applied Science (AAS) in Administration of Justice Studies provides in-depth preparation for students desiring to be practitioners or pursue continued education and advancement in several fields including local and federal law enforcement, the courts, corrections, security, and investigations. The program also provides criminal justice practitioners with the opportunity to complete the Certificate of Completion (CCL) in Administration of Justice as well as one of five Certificates of Completion (CCLs) in Corrections, Homeland Security, Law Enforcement, Legal Studies, and Victimology. A transfer pathway in Criminal Justice is also available (Associate Arts (AA), Emphasis in Criminal Justice) as well as an Associate in Applied Science (AAS) in Forensics and related Certificates of Completion. Additionally, a transfer pathway is also available for the Bachelor of Applied Science (BAS) Public Safety Administration.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 28-30

AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS123 Ethics and the Administration of Justice 3

AJS200 Current Issues in Criminal Justice (3) OR
AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety (3) 3

AJS212 Juvenile Justice Procedures 3
AJS225 Criminology 3
AJS230 The Police Function 3
AJS240 The Correction Function 3
AJS260 Procedural Criminal Law 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 12-13

Complete 12-13 credits from the course options below. Some of these options fulfill requirements for one or more related certificates of completion (CCLs). Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

AJS113 Criminal Justice Crime Control Policies and Practices 3
AJS119 Computer Applications in Justice Studies 3
AJS270 Community Relations 3
The following courses fulfill the requirements for the Corrections certificate (5776N):

AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS255 The Criminal Justice System Handling of the Mentally III 3
AJS275 Criminal Investigation I 3

The following course fulfills the requirements for the Crime Scene Investigation (5964) and Fingerprint Identification and Photography (5010N):

## AJS290BN Courtroom Testimony Seminar 1

The following courses fulfill the requirements for the Homeland Security (5322N):

AJS/FSC139 Emergency Response to Terrorism 3
AJS/FSC147 Emergency Preparedness 3
AJS/FSC148 Fundamentals of Emergency Management 3
AJS/FSC149 Hazard Mitigation 3
AJS195 International and Domestic Terrorism 3

The following courses fulfill the requirements for the Law Enforcement certificate (5987N):

AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS275 Criminal Investigation I 3

The following courses fulfill the requirements for the Legal Studies certificate (5966N):

AJS201 Rules of Evidence 3
AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS210 Constitutional Law 3
The following courses fulfill the requirements for the Victimology certificate (5392N):

AJS162 Domestic Violence 3
AJS255 The Criminal Justice System Handling of the Mentally III 3
AJS+++++ Any AJS Administration of Justice Studies course not listed under the Required Courses area (3) 3

## General Electives

Credits: 0-6

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree.

Select courses not already listed in Required Courses, Restrictive Electives, or General Education requirements. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

## General Education Requirement

## Credits: 16-22

## GENERAL EDUCATION CORE

Credits: 12-28 credits

## First-Year Composition ( 6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3)
AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Any higher approved general education course in the Mathematics area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 4 credits

Humanities, Arts and Design (0 credits)
Met by AJS123 in the Required Courses area

## Social-Behavioral Sciences (0 credits)

Met by AJS101, AJS200, AJS225 or AJS/EMT/FSC/SWU258
Required Courses area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area.

## Recommended:

FOR105 Forensic Science: Physical Evidence (4) OR
FOR106 Forensic Science: Biological Evidence (4) OR
Course with the [SQ] or [SG] general education designation (4) 4

## Administrative Professional

Major Code: 3860
Total Credits: 62-70

Academic Department: Business and Information Technology Program of Study: Business
Field of Interest: Business, Entrepreneurialism and Management

Description: The Associate in Applied Science (AAS) in the Administrative Professional degree is designed to provide training for various office positions. The curriculum incorporates people and technological skills essential for job success. Includes instruction in business communications, office procedures, public relations, accounting, records management, and report preparation. A Certificate of Completion (CCL) in Administrative Professional is also available.

Program Notes: Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 25-27

ACC115 Computerized Accounting 3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3
CIS114DE Excel Spreadsheet 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS120 Workplace Communication Skills 3
GBS131 Business Calculations 3
GBS151 Introduction to Business 3

Select three (3) of the following courses:
BPC101AA Introduction to Computers I 1
BPC/OAS111AA Computer Keyboarding I 1
CIS121AE Windows Operating System: Level I 1
CIS121AI Mac Operating System 1

+ CIS122AE Windows Operating System: Level II 1
CIS133AA Internet/Web Development Level I-A 1


## Restricted Electives

Credits: 15

Students should select 15 credits from the following courses, except courses used to satisfy the Required Courses area, in consultation with a program advisor:

ACC+++ Any ACC Accounting prefixed course (except ACC115) 3
CIS103 Introduction to Social Media 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development: Level I 3

+ CIS214DE Advanced Excel Spreadsheet: Level II 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT251 Human Relations in Business 3
MGT126 Customer Service Skills and Strategies 3
MKT110 Marketing and Social Networking 3
MKT271 Principles of Marketing 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3)
AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading: 0-3 credits

Any approved general education course from the Critical Reading area (3) OR
Equivalent as indicated by assessment (0) 0-3

## Mathematics: 3-6 credits

Any approved general education course from the Mathematics area OR
Equivalent as indicated by assessment (3-6) 3-6

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

SBU200 Society and Business 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Animation and Time-Based Media

Major Code: 3199
Total Credits: 69-77

Academic Department: Art and Humanities
Program of Study: Digital Arts
Field of Interest: Visual and Performing Arts

Description: The Associate in Applied Science (AAS) in Animation and Time-Based Media is designed for the student who wishes to develop marketable skills in the area of digital animation and time-based media development. The program provides the student with an understanding of the equipment, operations, and knowledge of the terminology related to still image, video, and animation production. It allows for the exploration of personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are included in video and multimedia fields, such as digital animator, media production, marketing, publishing, motion graphics, photography, storyboard artist, freelance artist designer, web and interactivity design, and multimedia artist/designer. A Certificate of Completion (CCL) in Animation and in Time-Based Media are also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.


Credits: 17-19

+ ADA/ART169 2D Media Design (3) OR
+ ART178 Digital Arts Studies (3) 3
+ ADA/ART177 Digital Photographic Imaging 13
+ ADA/ART/MMT184 Digital Animation I 3
ART100 Introduction to Digital Arts 1

ADA/ART248 Design Self Promotion (3) OR
ART255 Art Marketing (3) 3

+ ART280AC Digital Media Arts and Design Capstone 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3


## Restricted Electives

Credits: 30

```
al Animation (30 credits)
ART111 Drawing I 3
ART116 Life Drawing I }
ART/COM/STO150 Digital Storytelling (3) OR CRW150 Introduction to Creative Writing (3) OR
CRW172 Introduction to Comic Book Writing (3) OR
CRW176 Writing Narrative for Video Games (3) OR
FMT121 Story Theory for Film, Television and Media (3) }
```

AVC170 3D Computer Design (3) OR
AVC/THO246 Digital Fabrication (3) 3

+ AVC/MMT185 3D Modeling for Animation I 3
+ AVC200 Animation and Interactivity 3
+ AVC240 Cinematography and Directing for 2D/3D Animation 3
+ AVC284 Digital Animation II 3
+ AVC/MMT285 3D Modeling and Animation II 3

Specialization 2: Time-Based Media (30 credits)
ART111 Drawing I (3) OR
ART116 Life Drawing I (3) 3

AVC142 Introduction to Digital Photography 3

ART/COM/STO150 Digital Storytelling (3) OR
FMT121 Story Theory for Film, Television and Media (3) OR JRN213 Writing for Online (3) 3

+ ART202 Media Productions I (3) OR
FMP108 Video Production (3) 3
+ ART279 Media Productions II (3) OR
+ FMP215 Digital Video Effects (3) 3

MUC122 Sound Design I (3) OR
MUC191 Electronic Music I (3) 3
Complete 12 credits from courses not already selected in the Required Courses area. Students may choose from one emphasis or from among multiple emphasis areas according to their occupational needs.

```
Photography Emphasis
ART131 Photography I }
+ ART138 Commercial Photography I 3
+ ART140 Portrait Photography }
+ ART143 Intermediate Digital Photography 3
+ ART270 Digital Photographic Imaging II 3
```


## Audio Emphasis

+ FMP114 Audio Production 3
MUC122 Sound Design I 3
MUC191 Electronic Music I 3
+ MUC192 Electronic Music II 3
MUC195 Studio Music Recording I 3
+ MUC222 Sound Design II 3

Media Production Emphasis
ART/COM/STO145 Digital Storybook 1

+ ART/MMT190 Art of Web Site Design 3
+ ART192 Advanced Web Presentation Design 3
ART/THP246 Digital Fabrication 3
CIS133DA Internet/Web Development Level I 3
+ FMP204 Advanced Video Production 3
+ FMP215 Digital Video Effects 3
+ FMT151 TV and New Media Production 3

Motion Graphics Emphasis
ART116 Life Drawing I 3

+ ART174 Electronic Color Principles 1
+ ART/MMT185 3D Modeling for Animation I 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
+ ART273AC Special Topics: Multimedia Arts 3
+ ART287 3D Character Animation 3
+ FMP215 Digital Video Effects 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18
First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

Recommended for students planning to transfer to a four-year university:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

ARH101 Art from Prehistory Through Middle Ages (3) OR
ARH102 Art from Renaissance to Modernism (3) OR
ARH115 History of Photography (3) OR
HUM/THF205 Introduction to Cinema (3) 3

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Architectural and Civil CAD Technology

Major Code: 3503
Total Credits: 64-73
Academic Department: Technology and Consumer Sciences
Program of Study: Computer Assisted Design and Drafting
Field of Interest: Applied Technology
Description: The Associate in Applied Science (AAS) in Architectural and Civil CAD Technology degree is designed to prepare students for careers in Computer Aided Design (CAD) and Building Information Modeling (BIM) including, but not limited to, Structural, Mechanical, Electrical, or Civil Engineering offices; Landscape Architects or related fields. The goal of this program is to broaden design exposure and CAD technology skills. Students develop two-dimensional (2D) and
three-dimensional (3D) drawings and models utilizing industry standard CAD and BIM software, and learn presentation methods and construction documentation conventions.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 36-42

BLT263++ Any Building Codes course 3
CAD100 Fundamentals of 2D AutoCAD 3

+ CAD101 Elements of CAD Graphics (AutoCAD) 3
+ CAD145 Design Principles of Industry 3
+ CAD201 Three-Dimensional (3D) Modeling and Advanced CAD
Techniques 3
+ CET211 Strength of Materials 3
DFT126 Building Trades Blueprint Reading 3
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
Students must complete one of the following math requirements:
+ DFT106 Algebra and Graphs for Design Technology (3) AND
+ DFT107 Trigonometry and Analytic Geometry for Design
Technology (3)
OR
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) AND
+ MAT182 Plane Trigonometry (3)
OR
+ MAT187 Precalculus (5) 5-9
Students must also complete the courses in one of the following application specializations:


## Specialization 1: Architecture (9 credits)

+ CAD105 Fundamentals of Revit Architecture 3
+ CAD167 Architectural Drawings I (Revit): Residential CAD 3
+ CAD267 Architectural Drawings II (Revit): Commercial CAD 3


## Specialization 2: Civil (9 credits)

+ CAD106 Fundamentals of Civil 3D 3
+ CAD186 Site Development I 3
+ CAD286 Site Development II 3


## Restricted Electives

Credits: 9
Students must select an additional nine (9) credit hours from the following course options. Selected courses will not apply to both Required Courses and Restricted Electives areas.

+ CAD105 Fundamentals of Revit Architecture 3
+ CAD106 Fundamentals of Civil 3D 3
+ CAD167 Architectural Drawings I (Revit): Residential CAD 3
+ CAD186 Site Development I 3
+ CAD235 Modeling, Rendering and Animation for Technical Presentations 3
+ CAD267 Architectural Drawings II (Revit): Commercial CAD 3
+ CAD286 Site Development II 3
+ CAD287 Advanced Revit Techniques 3
+ CAD292 Current Developments in CAD Technology (1) (May repeat up to three times on different topics) 1-3

Courses selected from the following Restricted Electives options require prior approval by Department Advisor or Program Director:

CAD+++++ Any CAD Computer-Aided Drafting course(s) (1-3) OR
CIS+++++ Any CIS Computer Information Systems course(s) (13) $O R$

ECE+++++ Any ECE Engineering Science course(s) (1-3) 1-3

## General Education Requirement

Credits: 19-22

## GENERAL EDUCATION CORE

Credits: 9-12

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics ( 0 credits)

Met by (DFT106 and DFT107) OR (MAT150, or MAT151, or MAT152, or MAT155, or MAT156 and MAT182) OR MAT187 in Required Courses area

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course in the Humanities, Arts and Design [HU] area

## Social-Behavioral Sciences ( 3 credits)

Any approved general education course in the Social Behavioral Sciences [SB] area

## Natural Sciences (4 credits)

+ PHY101 Introduction to Physics (4) OR
+ PHY111 General Physics I (4) 4


## Audio Production Technologies

Major Code: 3074
Total Credits: 62-71

Academic Department: Performing Arts
Program of Study: Music Industry Studies
Field of Interest: Visual and Performing Arts

Description: The Associate in Applied Science (AAS) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge and experience essential in the field of audio production. An embedded Certificate of Completion (CCL) in Audio Production Technologies is also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 31-34
In addition to the required course work, students must consult with a program advisor to select nine credits within the Restricted Electives area.

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
MTC101 Introduction to Music Theory 3
MUC109 Music Business: Content Creation and Copyright 3
MUC110 Music Business: Marketing and Monetization (3) OR
MUC145 Recording Studio Business Operations (2) 2-3

+ MUC111 Digital Audio Workstation I (DAW I) 3
MUC191 Electronic Music I 3
+ MUC192 Electronic Music II 3
+ MUC194 Audio Mixing Techniques 3

MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3

+ MUC196 Studio Music Recording II (3) OR
+ MUC196AA Studio Music Recording II (3) 3
MUC197 Live Sound Reinforcement I 3
+ MUC297AA Audio Production Internship (1) OR
+ MUC296WA Cooperative Education (1) OR
+ MUC298AA Special Projects (1) 1


## Restricted Electives

## Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor.

NOTE: at least one (1) of the following courses must be completed: MUC289, MUC291, MUC292, or MUC295.

+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC122 Sound Design I 3
+ MUC193 Computer-Based Sound Synthesis 3
+ MUC198 Live Sound Reinforcement II 3
+ MUC222 Sound Design II 3
+ MUC289 Live Sound Reinforcement III 3
+ MUC291 Electronic Music III 3
+ MUC292 Sound Design III 3
+ MUC295 Studio Music Recording III 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 1218

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM110 is recommended)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

Students who intend to transfer must take:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education courses from the Humanities, Arts and Design area
(MHL140 or MHL145 or MHL153 are recommended)

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area
(PSY101 is recommended)

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Automotive Service

Major Code: 3180
Total Credits: 64-77

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology
Description: The Associate in Applied Science (AAS) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1-A8).

See program advisor for additional certificate offerings.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 43-45

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR
ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air
Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management OR (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4
ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 3-8

+ ASE240 Advanced Driver Assistance Systems 2
+ ASE265 Introduction to Electric and Hybrid Vehicles 2
ASE290++ Automotive Service Internship (any suffixed courses)
1-4
ASE296++ Cooperative Education (any suffixed courses) 1-4
ASE298++ Special Projects (any suffixed courses) 1-3


## General Education Requirement <br> Credits: 18-24

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

GTC107 Technical Mathematics I (3) OR

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Any approved general education course from the Mathematics area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 6

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities and Fine Arts area

## Social-Behavioral Sciences ( 3 credits)

Any approved general education course from the Social and Behavioral Sciences area

Natural Sciences (0 credits)
Area Waived

## Behavioral Sciences

Major Code: 3067
Total Credits: 63-71
Academic Department: Counseling
Program of Study: Behavioral Health Sciences
Field of Interest: Behavioral Sciences and Human Services

Description: The Associate in Applied Science (AAS) in Behavioral Sciences provides a general education as well as focused coursework in human behavior to prepare students to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, addictions and substance use, trauma, developmental disabilities, comorbid medical conditions, and challenging behaviors. Focuses on the skills necessary to deliver specialized and comprehensive behavioral health and social services. This program prepares students for industry certification and is embedded in the Bachelor of Science (BS) in Behavioral Sciences available at MCCCD.

Program Notes: Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 35-37

BHS150 Introduction to Behavioral Health and Social Services 3
BHS155 Professional Resiliency and Well-Being 3
BHS160 Ethical, Legal and Professional Issues in Counseling Services 3
BHS165 Applied Therapeutic Communication Skills 3
BHS170 Case Management and Clinical Documentation 3
BHS180 Child, Family, and Adult Advocacy 3
NOTE: The above courses are required in the Certificate of Completion (CCL) in Foundations of Behavioral Sciences (5522)

BHS175 Trauma-Informed Care and Recovery Treatment 3 BHS185 Cultural Competence in Behavioral Health 3 + BHS190 Supervised Practice in Behavioral Health and Human Services 1
BHS205 Introduction to Individual Counseling Theories 3
BHS210 Addictions, Substance Use Disorders, and Recovery 3
BHS215 Introduction to Group Therapy 3

NOTE: The above courses are required in the Certificate of
Completion (CCL) in Advanced Behavioral Sciences (5521)
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 6

Students must choose six (6) credits from one of the following specializations:

## Specialization 1: Trauma and Crisis Stabilization

BHS230 Crisis and Trauma Stabilization 3
BHS235 Emergency Mental Health Crisis Response and Recovery 3

Specialization 2: Infant and Early Childhood Mental Health BHS275 Infant and Early Childhood Mental Health (3) OR CFS177 Parent-Child Interaction (3) 3

BHS272 Child and Adolescent Mental Health and Interventions 3 CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3

+ EED210 Creative and Cognitive Play 3
(If EED210 is selected, CFS235 will need to be selected unless another requisite option has been met)


## Specialization 3: Addiction and Substance Use Disorders

 ASD110 Pharmacology of Substances of Abuse and Dependency 3ASD245 Co-Occurring Disorders (2) AND
ASD120 Professional Ethics in Addictions and Substance Use Disorders (1) OR
ASD145 AIDS and Addiction (1) 3
BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3

## Specialization 4: Developmental Disabilities

BHS271 Developmental Disabilities Assistance Training 3

+ PSY241 Understanding and Changing Behavior 3
+ PSY243 The Psychology of Developmental Disabilities 3

Specialization 5: Criminal Justice and Forensic Science
AJS101 Introduction to Criminal Justice (3) OR
AJS200 Current Issues in Criminal Justice (3) OR
AJS225 Criminology (3) 3

+ PSY267 Introduction to Forensic Psychology 3

Specialization 6: Mental Health
BHS230 Crisis and Trauma Stabilization (3) OR
BHS235 Emergency Mental Health Crisis Response and Recovery (3) 3

BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3
BHS255 Health and Wellness Coaching in Professional Resiliency 3 BHS262 Behavioral Health Service Techniques for the Elderly 3 BHS266 Violence and Abuse Services 3
BHS269 Grief Support Techniques 3
BHS271 Developmental Disabilities Assistance Training 3
BHS272 Child and Adolescent Mental Health and Interventions 3
BHS275 Infant and Early Childhood Mental Health 3
CPD180 Human Resilience: Cognitive, Emotional, and Behavioral Applications 3

+ PSY266 Psychological Disorders 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
(ENG102 or ENG108 recommended for students considering pursuing a bachelor's degree)


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Higher level course in the Mathematical Applications [MA] area
(3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design area
(HCR210 is recommended)

## Social-Behavioral Sciences (3 credits)

PSY101 Introduction to Psychology 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural

## Sciences area

(BIO160 is recommended for students intending to pursue the MCCCD Bachelor of Science in Behavioral Science)

## Biotechnology and Molecular Biosciences

Major Code: 3034
Total Credits: 63-72

Academic Department: Biology
Program of Study: Biological Sciences

Field of Interest: Science, Technology, Engineering and Mathematics

Description: The Associate in Applied Science (AAS) in Biotechnology and Molecular Biosciences program is designed to give entry-level laboratory technicians skills for application in academic, industrial and commercial research institutions. The exposure to an academic environment that simulates the contemporary biotechnological workplace, inclusive of analytical, critical thinking and problem-solving skills, provides the opportunity to form a strong technical foundation typically sought by employers. The successful completion of the program may also provide the educational background for those wishing to pursue a career in the pharmaceutical industry, clinical laboratory medicine, forensics or environmental testing laboratories and/or a foundation for a student wishing to continue their education at a university.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 45-48
ABS173 Basic Instrumentation and Lab Math 1
ABS175 Research Methods in Biology 1

+ BIO181 General Biology (Majors) I (4) OR
+ BIO181XT General Biology (Majors) I (4) 4
+ BIO195AA Principles and Practice of Scientific Research 1
+ BIO205 Microbiology 4
+ BIO208 Nucleic Acid Methods 3
+ BIO209 Biomolecular Separation 3
+ BIO210 Advanced Lab Instrumentation 3
BIO211AA Biotechnology Seminar: Biomedical Applications (1) OR
+ BIO211AB Biotechnology Seminar: Laboratory Protocol (1) OR BIO211AE Biotechnology Seminar: Business and Regulatory Issues (1) 1

Complete four (4) credits from the following course options. Courses may be repeated for credit. BIO295AA must be taken for at least two (2) credits.

```
+ BIO215AB Biotechnology Internship 2
+ BIO295AA Independent Research in Biology 1
+ BIO295AB Independent Research in Biology 2
+ BIO/CSC283 Bioinformatics and Scientific Computing 3
+ CHM150 General Chemistry I (4) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM151 General Chemistry I (3) AND
```

```
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM150AA General Chemistry I (5)
OR
+ CHM151AA General Chemistry I (4) 4-5
+ CHM152 General Chemistry II (3) AND
+ CHM152LL General Chemistry II Laboratory (1)
OR
+ CHM152AA General Chemistry II (4) 4
+ CHM235 General Organic Chemistry I (3) AND
+ CHM235LL General Organic Chemistry I Laboratory (1)
OR
+ CHM235AA General Organic Chemistry I with Lab (4) 4
+ CHM236 General Organic Chemistry IIA (3) AND
+ CHM236LL General Organic Chemistry IIA Laboratory (1)
OR
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
```


## General Education Requirement

```
Credits: 18-24
```


## GENERAL EDUCATION CORE

```
Credits: 12-18 credits
```


## First-Year Composition ( 6 credits)

```
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM230 recommended)
Critical Reading ( \(0-3\) credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3
```


## Mathematics (3-6 credits)

```
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) OR
Satisfactory completion of higher-level Mathematics course (3-
6) 3-6
```


## GENERAL EDUCATION DISTRIBUTION

Credits: 6

Humanities, Arts and Design (3 credits)<br>PHI105 Introduction to Ethics (3) OR<br>PHI213 Medical and Bio-Ethics (3) OR<br>PHI216 Environmental Ethics (3)<br>(3) 3

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area

## Natural Sciences (0 credits)

Met by BIO181 OR BIO181XT in Required Courses area

## Cybersecurity

Major Code: 3197
Total Credits: 62-77

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Associate in Applied Science (AAS) in Cybersecurity is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. Certificates of Completion (CCLs) are also available in the following areas: Cybersecurity Fundamentals, Cyber Operations, Linux System Administration, Microsoft, Cisco Networking CCNA Security, Cyber Engineering, and Critical Infrastructure.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 25-31

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3
(MST150++ required for Cloud System Administration specialization and Critical Infrastructure specialization)

CIS105 Survey of Computer Information Systems 3
CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
(CNT140AB required for Cisco Network Administration and
Security specialization and Critical Infrastructure specialization)
+ CIS271DB Information Security Essentials (3) AND
+ CIS272DB Information Security Principles (3) OR
+ CIS270 Essentials of Network and Information Security (3) OR
+ ITS110 Information Security Fundamentals (3) 3-6
(ITS110 required for Cyber Operations specialization; CIS271DB
AND CIS272DB required for Critical Infrastructure specialization)

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ ITS240 Ethical Hacking and Network Defense 3


## Restricted Electives

Credits: 12-18

Students must complete 12-18 credits from the following list of courses. Courses that are required for a specialization in Cyber Operations, Linux System Administration, Cloud System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted. Courses cannot be repeated for credit.

## Specialization 1: Cyber Operations (17 credits)

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3
+ CIS290AC Computer Information Systems Internship (3) OR
+ CIS298AC Special Projects (3) 3
+ ITS291 Computer Forensics Foundations 4
+ ITS292 Advanced Computer Forensics 4

```
Specialization 2: Linux System Administration (15 credits)
+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) }
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration (3) OR
+ CIS240RH Red Hat System Administration III (3) }
+ CIS271DL Linux Security (3) OR
+ CIS271RH Red Hat System Administration IV (3) }
+ CIS275DL Linux Capstone 3
Specialization 3: Cloud System Administration (15-16 credits)
+ BPC274 Advanced Server Computer Maintenance: Server+
Prep 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
+ CIS239DL Linux Shell Scripting 3
+ CLD110 Amazon Web Services Cloud Foundations (3) OR
+ MST160 Azure Administrator (4) 3-4
+ CLD120 Amazon Web Services Cloud Architect Associate (3)
OR
+ MST260 Microsoft Azure Cloud Development and Operations
(3)}
Specialization 4: Cisco Network Administration and Security
(12 credit)
+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
+ CNT205 Cisco Certified Network Associate Security (4) 4
Specialization 5: Cyber Engineering (18 credits)
+ CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276++ Any SQL Database course (3) 3
+ CIS162++ Any C Programming: Level I course 3
(Students intending to transfer to U of A South should take
CIS162)
+ CIS227 Assembler Language 3
+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) }
+ CIS250 Management of Information Systems 3
+ CIS262++ Any C Programming: Level II course 3
Specialization 6: Critical Infrastructure (16 credits)
+ CIS143 Introduction to Critical Infrastructure Protection 3
+ CIS201 Introduction to Operational Technology 3
+ CIS202 Introduction to Smart Grid Security 3
```

+ CIS203 Principles of the Risk Management Framework 3
+ CNT150AB Switching, Routing, and Wireless Essentials 4


## General Electives

Credits: 0-3

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree. It is recommended to select from the Restricted Elective options. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM100 required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing Cybersecurity)

Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course in the Mathematics area (3-6)

GENERAL EDUCATION DISTRIBUTION
Credits: 10

Humanities, Arts and Design (3 credits)
Any approved general education course(s) in the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course(s) in the Social-
Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course(s) from the Natural Sciences area

## Digital Media Arts

Major Code: 3567
Total Credits: 66-74

Academic Department: Art and Humanities
Program of Study: Digital Arts
Field of Interest: Visual and Performing Arts
Description: The Associate in Applied Science (AAS) in Digital Media Arts is designed for the student who wishes to develop skills in the area of graphic design, imaging, photography, animation, time-based, interactivity, and media production. The program emphasizes critical thinking, written communication, and teamwork by challenging students to develop their own design method, production workflow, and conceptual aesthetic. The program provides students with a broad understanding of media design and its place in society as a means to communicate. It allows for the development of an individual's personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Upon completion of the program, students will have compiled a professional portfolio. Employment opportunities include, but are not limited to, graphic design, animation, web design, and video production. Based on course selections, students may also pursue transfer opportunities.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 32-34

+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I 3
ART100 Introduction to Digital Arts 1

ART111 Drawing I (3) OR
ART116 Life Drawing I (3) 3
ART142 Introduction to Digital Photography 3

+ ART181 Graphic Design I 3
+ ADA/ART/MMT184 Digital Animation I 3
+ ART200 Animation and Interactivity 3
ADA/ART248 Design Self Promotion 3
+ ART280AC Digital Media Arts and Design Capstone (3) OR
+ ART297++ Computer Graphic Design Internship (3) 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

JRN213 Writing for Online 3

## Restricted Electives

Credits: 12
Complete 12 credits from the following courses:

+ ART182 Graphic Design II 3
+ ART/MMT185 3D Modeling for Animation I 3
+ ART210 Design Tools for Imagery, Production, and Publishing
3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
CIS133DA Internet/Web Development Levell 3
FMP108 Video Production 3
+ FMP215 Digital Video Effects 3
MUC122 Sound Design I 3
MUC191 Electronic Music I 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition ( 6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Critical Reading ( $0-3$ credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

Recommended for students planning to transfer to a four-year university:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6
GENERAL EDUCATION DISTRIBUTION
Credits: 10


## Humanities, Arts and Design (3 credits)

ARH102 Art from Renaissance to Modernism (3) OR
ARH110 History of Graphic Design (3) OR

HUM/THF205 Introduction to Cinema (3) 3
(Students who intend to transfer should choose either ARH102 or HUM/THF205 to fulfill the [HU] requirement for transfer)

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area. 4

## Early Childhood Education

Major Code: 3186
Total Credits: 60-74

Academic Department: Technology and Consumer Sciences
Program of Study: Early Childhood Education
Field of Interest: Education

Description: The Associate in Applied Science (AAS) in Early Childhood Education (ECE) is designed to prepare individuals for employment as early childhood professionals in a variety of educational settings. The AAS program includes courses based on current ECE theory and practice as well as general education classes to broaden a student's base of knowledge. Certificates of Completion are also available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 30-37

CFS101AH Art Activities for the Young Child (1) AND
ECH281 Movement/Music for the Young Child (1) OR
ECH128 Early Learning: Play and the Arts (3) OR

+ EED210 Creative and Cognitive Play (3) 2-3

CFS123 Health and Nutrition In Early Childhood Settings (1) AND
CFS125 Safety in Early Childhood Settings (1) AND
ECH280 Food Experiences With Young Children (1) OR EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3

CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3

+ CFS/ECH269 Child Care Seminar (1) AND
CFS/ECH287 Professional Development in Early Childhood Education (1) OR
+ EED255 Portfolio Development and Writing for the Profession
(3) 2-3

CFS/ECH271 Arranging the Environment (1) AND
CFS282 Mainstreaming The Young Child with A Disability (1)
AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3

+ CFS/ECH284AB Early Childhood Teaching Internship (3) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) AND
+ EED261 Early Childhood Preschool Internship (1) OR
+ CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3
ECH140 Learning Made Visible Through Documentation (1) AND ECH270 Observing Young Children (1) OR
+ EED280 Standards, Observation and Assessment of
Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3
CFS/ECH273 Math for the Young Child (1) AND
CFS/ECH275 Literacy Development and the Young Child (1) AND
ECH272 Science for the Young Child (1) AND
ECH279 Early Childhood Curriculum Development (1) OR
+ EED278 Early Learning Curriculum and Instruction - Birth to
Age Eight (3) 3-4
EED200 Foundations of Early Childhood Education 3
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3
EED225 Language and Literacy in the Context of Culture and Relationships 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 9-12

Students must select 9-12 credits from the following to complete the minimum total program credits required for this degree. Students are encouraged to consult with a faculty advisor or student services analyst to identify the requirements for their desired academic and professional goals:

CFS+++ Any CFS Child/Family Studies course(s)
ECH+++ Any ECH Early Childhood Education course(s)
EDU+++ Any EDU Education course(s)
EED+++ Any EED Early Education course(s)
FCS+++ Any FCS Family and Consumer Science course(s)
ITD+++ Any ITD Infant/Toddler Development course(s)

## General Education Requirement

## Credits: 19-25

## GENERAL EDUCATION COREA

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course from the Oral Communication area (3) 3

Note: COM225 is recommended for students who wish to transfer to the BAE at ASU.

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT112 Mathematical Concepts and Applications (3) OR Satisfactory completion of a higher-level mathematics course (3-6) 3-6

Note: MAT14+ or any approved general education course in the Mathematical Application [MA] area may be required for students intending to transfer to a bachelor's degree program.

## GENERAL EDUCATION DISTRIBUTION

Credits: 7

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area
(EDU/ENH291 OR EDU/HUM/STO292 is recommended)

## Social-Behavioral Sciences (0 credits)

Fulfilled by EED222 in Required Courses area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Engineering Technology

Major Code: 3187
Total Credits: 61-71
Academic Department: Technology and Consumer Sciences Program of Study: Engineering
Field of Interest: Science, Technology, Engineering and Mathematics

Description: The Associate in Applied Science (AAS) in Engineering Technology program prepares students as entrylevel engineering technicians. They will apply basic engineering principles and technical skills to support engineers engaged in a wide variety of projects. Includes instruction in various engineering support functions, including preparation in the areas of research, production, and operations. This degree will prepare highly skilled and needed workers for area manufacturers and the tech industry.

Program Notes: Students must earn a grade of C or better in each course in the program.

```
Required Courses
Credits: 27-36
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1)
OR
+ CHM130AA Fundamental Chemistry with Lab (4)
OR
+ CHM150 General Chemistry I (4) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM150AA General Chemistry I (5)
OR
+ CHM151 General Chemistry I (3) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM151AA General Chemistry I (4) 4-5
CIS105 Survey of Computer Information Systems 3
+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162AB C++: Level I (3) OR
+ CIS162AC Visual C++: Level I (3) OR
+ CIS162AD C#: Level I (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CSC100 Introduction to Computer Science (C++) (3) OR
+ CSC100AA Introduction to Computer Science (C++) (3) OR
+ CSC100AB Introduction to Computer Science (C++) (4) OR
+ CSC110 Introduction to Computer Science (Java) (3) OR
+ CSC110AA Introduction to Computer Science (Java) (3) OR
+ CSC110AB Introduction to Computer Science (Java) (4) 3-4
+ ECE102 Engineering Analysis Tools and Techniques 2
+ ECE103 Engineering Problem Solving and Design 2
+ ECE216 Computer-Aided Engineering 2
+ ECE216LL Computer Aided Engineering Laboratory 1
+ ECE104 EPICS Gold I (2) OR
+ ECE294++ Special Topics in Engineering (1-4) OR
```

```
+ ECE296++ Cooperative Education (1-3) OR
+ ECE298++ Special Projects (1-3) 1-4
```

FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ PHY111 General Physics I (4) OR
+ PHY111AA General Physics I (5) OR
+ PHY115 University Physics I (5) OR
+ PHY121 University Physics I: Mechanics (4) 4-5
+ PHY112 General Physics II (4) OR
+ PHY116 University Physics II (5) OR
+ PHY131 University Physics II: Electricity and Magnetism (4) 4-5


## Restricted Electives

Credits: 12-15

In consultation with an Academic, Faculty, or Program Advisor, complete 12-15 credits of coursework from any of the areas below that best align with academic and professional goals. Students may select courses from multiple areas.

## General Application

Select one (1) of the following programming courses not already taken in required courses:

+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162AB C++: Level I (3) OR
+ CIS162AC Visual C++: Level I (3) OR
+ CIS162AD C\#: Level I (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CSC100 Introduction to Computer Science (C++) (3) OR
+ CSC100AA Introduction to Computer Science (C++) (3) OR
+ CSC100AB Introduction to Computer Science (C++) (4) OR
+ CSC110 Introduction to Computer Science (Java) (3) OR
+ CSC110AA Introduction to Computer Science (Java) (3) OR
+ CSC110AB Introduction to Computer Science (Java) (4) 3-4
Select one (1) of the following courses not already taken in required courses:

```
AIT100 Industrial Safety (1) OR
CON271 Construction Safety (3) OR
GTC/MIT/OSH106 Industrial Safety (2) 1-3
```

+ ECE104 EPICS Gold I (2) OR
+ ECE294++ Special Topics in Engineering (1-4) OR
+ ECE296++ Cooperative Education (1-3) OR
+ ECE298++ Special Projects (1-3) 1-4
+ ECE105 MATLAB Programming 1

ECE106 Survey of Nanotechnology (1) OR
MNT110 Nanotechnology: What It Is and Why It Matters (3) 1-3

+ MAT206 Elements of Statistics 3


## Biomedical Engineering Technician

ABS/BIO175 Research Methods in Biology 1
BIO160 Introduction to Human Anatomy and Physiology (4) OR + BIO201 Human Anatomy and Physiology I (4) 4

BIO211AA Biotechnology Seminar: Biomedical Applications 1
ECE111 Bioengineering Systems 3

## Civil Engineering Technician

+ CET211 Strength of Materials (3) OR
CON223 Strength of Materials (3) 3
+ CON241 Surveying 3
+ ECE216 Computer-Aided Engineering 2
+ ECE216LL Computer-Aided Engineering Laboratory 1

GLG101 Introduction to Geology I - Physical Lecture (3) AND
GLG103 Introduction to Geology I - Physical Lab (1) OR
GLG101IN Introduction to Geology I - Physical (4) 4

## Drafting for Engineering Technician

CAD100 Fundamentals of 2D AutoCAD 3

+ CAD101 Elements of CAD Graphics (AutoCAD) 3
+ CAD145 Design Principles for Industry 3
DFT110 Introduction to Drafting 3
DFT126 Building Trades Blueprint Reading 3
+ ECE216 Computer-Aided Engineering 2
+ ECE216LL Computer-Aided Engineering Laboratory 1


## General Education Requirement

Credits: 19-23

## GENERAL EDUCATION CORE

Credits: 13-17

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(Recommend COM225 or COM230)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (4-5 credits)

+ MAT187 Precalculus (5) OR
+ MAT220 Calculus with Analytic Geometry I (5) OR
+ MAT221 Calculus with Analytic Geometry I (4) 4-5


## GENERAL EDUCATION DISTRIBUTION

Credits: 6

## Humanities, Arts and Design (3 credits)

Any approved general education course in the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course in the Social-Behavioral Sciences area
(Recommend ECN211 or ECN212)

## Natural Sciences (0 credits)

Met by CHM or PHY in Required Courses

## Exercise Science: Health, Fitness, and Sports Performance

Major Code: 3059
Total Credits: 62-74.5

Academic Department: Fitness and Wellness
Program of Study: Exercise Science
Field of Interest: Health Sciences

Description: The Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance prepares students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM) and the American Council on Exercise (ACE) personal trainer certifications. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the Certificate of Completion (CCL) in Personal Training coupled with advanced hands-on courses required for the CCL in Personal Training: Advanced that foster the development of critical thinking, leadership, and communication skills important for developing, implementing and leading exercise programs. This curriculum also provides a good foundation for transfer to a four-year bachelor program. Students who complete this AAS also qualify for the CCL in Personal Training and Personal Training: Advanced. An Associate in Arts (AA), Emphasis in Exercise Science is also
available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of $C$ or better required for all courses within the program.

## Required Courses

Credits: 46-52.5

BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO201++ Human Anatomy and Physiology I (4) 4
+ BIO181++ General Biology (Majors) I (4) OR
One (1) year of high school biology (0) 0-4

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3
+ EXS246 Advanced Exercise Testing 2
+ EXS255 Program Design: Muscular Fitness and Performance 3
+ EXS257 Program Design: Cardiorespiratory Fitness 3

Student must complete three (3) credits from the following EXS internship course options:

```
+ EXS270 Exercise Science Internship (3) OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS270AB Exercise Science Internship (2)
OR
+ EXS275 Sport Science Internship (3) OR
+ EXS275AA Sport Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AB Exercise Science Internship (2) AND
+ EXS275AA Sport Science Internship (1) }
+ EXS290 Introduction to Evidence Based Practice 3
FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) }
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
```

HES100 Healthful Living 3
HES210 Cultural Aspects of Health and IIIness 3

```
PED101BC Boot Camp (1) OR
PED101BS Body Sculpting (1) OR
PED101CY Cycling - Indoor (1) OR
PED101YG Gentle Yoga (1) OR
PED101GF Group Fitness/Aerobics (1) OR
PED101YH Hatha Yoga (1) OR
PED101KB Kickboxing (1) OR
PED101LD Latin Dancing (1) OR
PED101PC Physical Conditioning (1) OR
PED101PS Pilates (1) OR
PED101YP Power Yoga (1) OR
PED101YR Restorative Yoga (1) OR
PED101SR Stretch and Relaxation (1) OR
PED101TX Suspension Training (1) OR
PED101TC Tai Chi (1) OR
PED101YO Yoga (1) ORPED101ZU Zumba Fitness (1) 1
PED101ST Strength Training (1) OR
PED101RT Resistance Training for Improved Sports
Performance (1) 1
```


## PSY101 Introduction to Psychology 3

## Restricted Electives

Credits: 1
Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

IFS110 Critical Research for College Success 1
EXS+++++ Any EXS Exercise Science course 1
FON+++++ Any FON Food and Nutrition course 1
HES+++++ Any HES Health Science course 1
PED+++++ Any PED Physical Education course 1

## General Education Requirement

Credits: 15-21

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101++ College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6)
OR
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) OR
Higher level course in the Mathematical Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 3

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

Social-Behavioral Sciences (0 credits)
Met by HES100 in Required Courses
Natural Sciences ( 0 credits)
Met by BIO160 or BIO201++ in Required Courses

## Film and Media Production

Major Code: 3570
Total Credits: 61-71

Academic Department: Art and Humanities
Program of Study: Film
Field of Interest: Visual and Performing Arts
Description: The Associate in Applied Science (AAS) in Film and Media Production is designed to help students develop the creative and technical skills needed to work in the competitive film and video industry. Students receive comprehensive training in the craft, process, and theory behind visual storytelling. The program uses the latest technologies and provides opportunities for students to develop their skills and professionalism with real world projects, both in the laboratory and on location. This program is focused on independent filmmaking with the spirit of entrepreneurship in the field. A Certificate of Completion (CCL) in Documentary Film Production is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-12

FMP108 Video Production 3

+ FMP114 Audio Production 3
FMP115 Introduction to Editing for Media 3

FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 25-31

In addition to completing the Required Courses, students must select one (1) of the following specializations:

Specialization 1: Film and Media Production Credits: 30-31

Film and Media Production Core (18 credits)
FMP105 Studio Production 3

FMP111 Screenwriting I (3) OR
FMP111AA Scripting for the Media (3) 3

+ FMP/FMT117 Introduction to Cinematography 3
+ FMP134 Pre-Production for Film and Media 3
FMP208 Production Company Management (3) OR
FMP260 Film and Media Producing and Financing (3) 3

MUC122 Sound Design I 3
Film and Media Production Related Area (12-13 credits)
Complete two (2) production courses for a total of six (6) credits from the following list of options. (Note: Students planning to take FMT217 as their Capstone/Internship course should select FMP204):

ART142 Introduction to Digital Photography 3

+ FMP/FMT151 TV and New Media Production 3
+ FMP204 Advanced Video Production 3
+ FMP215 Digital Video Effects 3
Complete one (1) Humanities Film course for a total of three (3) credits from the following:

HUM/THF206 Introduction to Television Arts 3
HUM/THF210 Contemporary Cinema 3
HUM211AA Foreign Films: Classics 3

+ HUM212 Documentary Film 3
HUM213 Hispanic Film 3

Complete one (1) Capstone/Internship course for a total of 3-4 credits based on career goals:

+ ART280AC Digital Media Arts and Design Capstone 3
+ FMP211 Screenwriting II 3
+ FMP214AC Video Production Internship 3
+ FMP/FMT270 Documentaries for Social Change 4
+ FMP275 Advanced Portfolio Production 4
+ FMT217 Advanced Cinematography 3


## Specialization 2: Documentary Film Production

Credits: 25
Documentary Film Production Core (19 credits)
ART142 Introduction to Digital Photography 3
FMP125 Podcasting 3
FMP111AA Scripting for the Media 3

+ FMP204 Advanced Video Production 3
+ FMP/FMT270 Documentaries for Social Change 4

FMP170 Introduction to Documentary Filmmaking (3) OR

+ HUM212 Documentary Film (3) 3


## Documentary Film Production Related Area ( 6 credits)

In consultation with Advisor or Program Director, choose two (2) courses for a total of six (6) credits:

+ FMP/FMT117 Introduction to Cinematography 3
FMP208 Production Company Management 3
FMP260 Film and Media Producing and Financing 3
+ FMP/FMT294AC Special Topics in Motion Picture, Television, Documentary, and New Media Production 3


## General Electives

Credits: 0-4

Students must complete 0-4 additional credits to complete the minimum total program credits required for this degree.

## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

```
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) }
```


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

Students who want to transfer to university recommend the following:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

HUM/THF205 Introduction to Cinema 3

## Social-Behavioral Sciences ( 3 credits)

Any approved general education course from the SocialBehavioral Sciences area
(PSY101 is recommended)

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Fire Science

Major Code: 3205
Total Credits: 61.5-92
Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services

Description: The Associate in Applied Science (AAS) in Fire Science provides the opportunity for individuals seeking careers in the fire service to acquire standard firefighting skills and prepare for state and/or national certifications, including the Firefighter I and II Certification. Students will gain broad knowledge and skills necessary to work effectively in the fire service as firefighters. A Certificate of Completion (CCL) in Firefighter Operations is also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Consult with your faculty mentor or academic advisor to determine educational requirements, including possible university transfer options, for your chosen career field.

Admission Criteria: Admission to program is required. See Program Director for details.

## Required Courses

Credits: 38.5-61

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5)
OR
Current validation in Basic Life Support (BLS) Health Care
Provider/Professional Rescuer (0) AND
Credit By Evaluation (0.5) 0.5

+ EMT104 Emergency Medical Technology (10) AND
+ EMT104AB Applied Practical Studies for Emergency Medical
Technology (0.5) AND
+ EMT104LL Emergency Medical Technology Practicum (2)
OR
Arizona State EMT Certification (0) OR
Arizona State Paramedic Certification (0) OR
Permission of Program Director (0) 0-12.5
FSC101 Introduction to Fire Service Selection and Entry (4) OR
Current employment as a firefighter as determined by the Program Director (0) 0-4
+ FSC102 Fire Department Operations 11
FSC105 Hazardous Materials/First Responder (3) OR
Permission of Program Director (0) 0-3

FSC108 Fundamentals of Fire Prevention (3) OR
FSC110 Wildland Firefighter (3) 3
(FSC110 is recommended)
FSC113 Introduction to Fire Suppression 3
FSC117 Fire Apparatus 3
FSC118 Fire Hydraulics 3
FSC119 Introduction Fire Service Ethics 3
FSC130 Fitness for Firefighters/CPAT (1) OR
Verification of CPAT completion (0) 0-1
FSC134 Fitness and Conditioning for Firefighters (3) OR

+ FSC234 Fitness and Wellness for Firefighter Candidates (3) 3
(FSC234 is recommended for students who have already completed the Fire Academy equivalent of FSC 102 )
+ FSC174 Functions of Command 2
+ FSC208 Firefighter Safety and Building Construction 3 FSC215 Customer Service in the Public Sector 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 1-3
FSC+++++ Any Fire Science Technology course

Recommended:
FSC202 Supervisory Training for Firefighters 3

+ FSC204 Firefighting Tactics and Strategy 3
+ FSC282AC Service-Learning Experience in Fire Science 3
+ FSC296WC Cooperative Education 3
General Education Requirement
Credits: 2228


## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM100 is recommended)
Critical Reading ( $0-3$ credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Equivalent or higher-level mathematics course in the
Mathematical Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

## Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Fine Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social and Behavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences [SG/SQ] area

## Fire Service Management

Major Code: 3207
Total Credits: 61-63
Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services
Description: The Associate in Applied Science (AAS) in Fire Service Management can be used by professional firefighters for promotional opportunities within the Fire Services. The program provides courses for experienced professional firefighters who desire to learn advanced fireground tactics and strategy, building construction, practical incident command, supervisory training of personnel, public administration, basic finance, and human resource management. Students can select from a variety of fire science electives to meet their professional goals. A Certificate of Completion (CCL) in Fire Service Management is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Admission Criteria: Current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director.

## Required Courses

Credits: 30-32

+ ENG111 Technical and Professional Writing 3
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
FSC119 Introduction Fire Service Ethics 3
+ FSC167 Fire Captain Academy 6
FSC202 Supervisory Training for Firefighters 3
+ FSC204 Firefighting Tactics and Strategy 3
+ FSC208 Firefighter Safety and Building Construction 3
+ FSC214 Human Resources Management in Fire Service 3
+ FSC220 Fire Officer 5


## Restricted Electives

Credits: 3-9
Students should select 3-9 credit hours from the following courses in consultation with a Program Director.

FSC+++++ Any Fire Science Technology course(s)

## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM100 is recommended)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking 3 OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Equivalent or higher-level mathematics course in the
Mathematical Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social and Behavioral Sciences [SB] area.
(SOC101 is recommended)

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences [SG/SQ] area
(BIO100 or BIO160 or [CHM130 AND CHM130LL] is recommended)

## Forensic Science

Major Code: 3183
Total Credits: 61-68
Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Sciences and Human Services
Description: The Associate in Applied Science (AAS) in Forensic Science provides the student with a specialization in forensic investigation as it relates to crime. The curriculum presents a specialized scope of knowledge about photography, collection and preservation of evidence, and investigative strategies. The program provides students with an important knowledge base for investigative specialization in a wide range of disciplines and careers. This degree pathway also provides students with the opportunity to complete two Certificates of Completion (CCL) in Crime Scene Investigation, and Fingerprint Identification and Photography.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 32-44
AJS101 Introduction to Criminal Justice 3
AJS123 Ethics and the Administration of Justice 3
AJS275 Criminal Investigation 13
AJS290BN Courtroom Testimony Seminar 1
AJS215 Criminalistics: Physical Evidence (3) OR
AJS219 Crime Scene Technology: Physical Evidence (3) OR
FOR105 Forensic Science: Physical Evidence (4) 3-4
AJS216 Criminalistics: Biological Evidence (3) OR
FOR106 Forensic Science: Biological Evidence (4) 3-4
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
Students should select courses from one of the following specializations based on career goals.

## Specialization 1: Crime Scene ( 15 credits)

AJS109 Substantive Criminal Law 3
AJS210 Constitutional Law 3
AJS213 Evidence Technology/ Fingerprints 3
AJS214 Evidence Technology/Photography 3
AJS260 Procedural Criminal Law 3

## Specialization 2: Lab Science ( 23 credits)

ASM/FOR275 Forensic Anthropology 4

+ CHM151 General Chemistry I 3
+ CHM151LL General Chemistry I Laboratory 1
+ CHM152 General Chemistry II 3
+ CHM152LL General Chemistry II Laboratory 1
+ PHY111 General Physics I 4
+ PHY112 General Physics II 4
Any course with the HU, C and G general education designations (3) OR
Any course with the HU, C and H general education designations (3) 3


## Restricted Electives

Credits: 3

Students must complete three (3) credits of restricted electives.
Students interested in Specialization 1 (Crime Scene): CIS105 Survey of Computer Information Systems (3) OR BPC110 Computer Usage and Applications (3) OR
AJS++++++ Any AJS Administration of Justice Studies course not listed in the required courses area. (3) 3

Students interested in Specialization 2 (Lab Science): BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

## General Electives

Credits: 0-14

Students must choose zero 0-14 additional credits of General Elective courses. Total number of General Electives required will largely depend upon specialization selected.

## General Education Requirement

Credits: 12-24

## GENERAL EDUCATION CORE

Credits: 12-20
First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)
Oral Communication (3 credits)
+ COM225 Public Speaking 3
Critical Reading (0-3 credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent by assessment (0) 0-3

```
Mathematics (3-8 credits)
For Specialization }1\mathrm{ (Crime Scene):
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
```

Higher course with an [MA] general education designation (3-5)
3-5
For Specialization 2 (Lab Science):

+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) AND
+ MAT182 Plane Trigonometry (3) OR
+ MAT187 Precalculus (5) OR
Higher course with an [MA] general education designation (3-8)
3-8


## GENERAL EDUCATION DISTRIBUTION

Credits: 0-4

## Humanities, Arts and Design: 0 credits

Met by AJS123 in Required Courses area

## Social-Behavioral Sciences: $\mathbf{0}$ credits

Met by AJS101 in Required Courses area

## Natural Sciences (0-4 credits)

Recommended for Specialization 1 (Crime Scene):

+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) OR
+ CHM151 General Chemistry I (3) AND
+ CHM151LL General Chemistry I Laboratory (1) OR
FOR105 Forensic Science: Physical Evidence (4) OR
FOR106 Forensic Science: Biological Evidence (4) 0-4
For Specialization 2 (Lab Science):
Met by CHM151 and CHM151LL


## General Business

Major Code: 3148
Total Credits: 62-69

Academic Department: Business and Information Technology Program of Study: Business
Field of Interest: Business, Entrepreneurialism and
Management
Description: The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student`s business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this
program may aid a student in recognizing a specific business field to be pursued in future studies. A Certificate of Completion (CCL) in General Business is available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 22-24
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3

GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3
MGT175 Business Organization and Management (3) OR
MGT251 Human Relations in Business (3) 3
MKT271 Principles of Marketing 3

## Restricted Electives

Credits: 18
Students should select 18 credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
ACC+++ Any ACC Accounting course(s)
EPS+++ Any EPS Entrepreneurial Studies course(s)
GBS+++ Any GBS General Business course(s)
IBS+++ Any IBS International Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
REA+++ Any REA Real Estate course(s)
SBS+++ Any SBS Small Business Management course(s)
TQM+++ Any TQM Total Quality Management course(s)

## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 12-17

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent by assessment (0-3) 0-3


## Mathematics (3-5 credits)

Any approved general education course from the Mathematics area (3-5) 3-5

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course in the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences area

## Information Security

Major Code: 3039
Total Credits: 63-74
Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Associate in Applied Science (AAS) in Information Security degree is designed to provide students with the knowledge and tools to understand how networks, operating systems and programs function. Emphasis is placed on developing the theoretical and practical skills needed to maintain security on mission-critical data and systems. The program is designed to meet the training needs of government
and industry employees. The program covers a variety of information security disciplines which include both vendorneutral and vendor-specific information technology (IT) security training. The Information Security program prepares students for internationally recognized IT certifications and high demands in business, industry and government.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 29-31

Certificate of Completion in Information Security Technology (5347) 28

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 12-16

Students should select at least four (4) courses from the list below. A minimum of six (6) credits must be ITS prefixed course.

```
+ CIS1++++ Any CIS programming Level I course 3
+ CIS271DL Linux Security 3
+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT205 Cisco Certified Network Associate Security 4
```

ITS+++++ Any ITS Information Technology Security course except courses used to satisfy Required Courses area 6-16

## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 12-17
First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course in the Oral Communications area (3) 3

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits)

+ MAT150 College Algebra/Functions (5) OR
Higher level mathematics course (3-5) 3-5


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Information Technology

Major Code: 3196
Total Credits: 61-68

Academic Department: Business and Information Technology Program of Study: Computer Information Systems Field of Interest: Computer and Information Technology

Description: The Associate in Applied Science (AAS) in Information Technology (IT) program is designed to provide students with skills to meet information technology needs across industries. This program includes instruction in the principles of computer hardware components and business software, programming, databases, networking, customer service, web development, and information systems and project management. Coursework helps prepare students for a variety of industry-recognized examinations and certifications. Students will earn one or more of the following Certificates of Completion (CCLs):

CCL/5154 Cybersecurity Fundamentals
CCL/5083 Database Development
CCL/5043 Desktop Support
CCL/5793 Foundations of Mobile App Development
CCL/5132 Microsoft Office Professional
CCL/5031 Microsoft System Administration
CCL/5048 Programming and Systems Analysis Level I
CCL/5183N Oracle Database Operations
CCL/5050N Red Hat Linux Engineer
CCL/5984 Web Foundations

Program Notes: Students must earn a grade of C or better in all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 33-41

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

## Specialization 1: Cybersecurity Fundamentals

Credits: 33-38

## Information Technology Core (24-25 credits)

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS156 Python Programming: Level I 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

Note: Students taking CIS271DB would be required to take CIS250.

## Cybersecurity Fundamentals (9-12 credits)

CIS111 Ethics in Information Technology (3) OR

+ ITS120 Legal, Ethical and Regulatory Issues (3) 3
+ CIS270 Essentials of Network and Information Security (3) OR
+ CIS271DB Information Security Essentials (3) AND
+ CIS272DB Information Security Principles (3) OR
+ ITS110 Information Security Fundamentals (3) 3-6
+ ITS240 Ethical Hacking and Network Defense 3

Related Area (0-5 credits)
Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD++++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 2: Database Development
Credits: 36-38

## Information Technology Core (21-22 credits)

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL 3
CIS133DA Internet/Web Development Level I 3
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
CIS224 Project Management Microsoft Project for Windows (3) OR
CIS250 Management of Information Systems (3) 3


## Database Development (15 credits)

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS154 Database Modeling and Design (3) 3
+ CIS150++ Programming Fundamentals 3
+ CIS164AB Oracle: PL/SQL Programming (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
+ CIS217AM Advanced Microsoft Access: Database
Management (3) OR
+ CIS276DB SQL Server Database (3) 3
+ CIS225AB Object-Oriented Analysis and Design 3


## Related Area (0-2 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

## BPC+++++ Any BPC Business-Personal Computers courses CIS++++++ Any CIS Computer Information Systems courses CLD+++++ Any CLD Cloud Computing courses CNT++++++ Any CNT Cisco Network Technology courses ITS+++++ Any ITS Information Technology Security courses MST+++++ Any MST Microsoft Technology courses

## Specialization 3: Desktop Support

Credits: 32-38

```
Information Technology Core (24-25 credits)
+ BPC270 A+ Exam Prep: Operating System Configuration and
Support 3
CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) }
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) }
CIS133DA Internet/Web Development Level I 3
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) }
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
```

CIS224 Project Management Microsoft Project for Windows (3)
OR

+ CIS250 Management of Information Systems (3) 3


## Desktop Support (6 credits)

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
CIS102DA Customer User Support 3

## Related Area (2-8 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses CIS+++++ Any CIS Computer Information Systems courses CLD+++++ Any CLD Cloud Computing courses CNT++++++ Any CNT Cisco Network Technology courses ITS+++++ Any ITS Information Technology Security courses MST+++++ Any MST Microsoft Technology courses

Specialization 4: Foundations of Mobile App Development Credits: 33-38

```
Information Technology Core (21-22 credits)
+ BPC270 A+ Exam Prep: Operating System Configuration and
Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3
CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) }
CIS133DA Internet/Web Development Level I 3
+ CIS162++ Any C Programming: Level I course 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
CIS224 Project Management Microsoft Project for Windows (3)
OR
+ CIS250 Management of Information Systems (3) }
Foundations of Mobile App Development (12 credits)
CIS120DF Introduction to Adobe Photoshop 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Introduction to Android Application Development 3
+ CIS165DB C\#/VB.NET: Windows 8 App Development (3) OR
+ CIS165DC Xamarin/C\# Cross Platform Development (3) 3
```


## Related Area (0-5 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses CIS+++++ Any CIS Computer Information Systems courses CLD+++++ Any CLD Cloud Computing courses
CNT++++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 5: Microsoft Office Professional
Credits: 31-38

Information Technology Core (18-19 credits)
BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Levell 3

```
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) }
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
```


## Microsoft Office Professional (11-13 credits)

BPC/OAS111AA Computer Keyboarding (1) OR
Permission of Program Director (0) 0-1

## CIS113DE Microsoft Word: Word Processing 3

CIS114DE Excel Spreadsheet 3
CIS118DB Desktop Presentation: PowerPoint 3

CIS124AA Project Management Software: Level I (1) AND
CIS124BA Project Management Software: Level II (1) OR
CIS224 Project Management Microsoft Project for Windows (3) 2-3

## Related Area ( $0-8$ credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS++++++ Any CIS Computer Information Systems courses
CLD++++++ Any CLD Cloud Computing courses
CNT+++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

## Specialization 6: Microsoft Server

Credits: 36-38

## Information Technology Core (21-22 credits)

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
CIS133DA Internet/Web Development Levell 3
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3

MST150++ Microsoft Windows 3

## Microsoft Server (15 credits)

CIS121AH Microsoft PowerShell/Command Line Operations 3

+ MST155DC Installation, Storage, and Compute with Windows
Server 4
+ MST157DC Networking with Windows Server 4
+ MST158DC Identity Management with Windows Server 20164


## Related Area ( $0-2$ credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD++++++ Any CLD Cloud Computing courses
CNT++++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

Specialization 7: Oracle Database Operations
Credits: 32-38

## Information Technology Core (21-22 credits)

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL 3
CIS133DA Internet/Web Development Level I 3
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

+ CIS250 Management of Information Systems (3) 3


## Oracle Database Operations (9 credits)

+ CIS119DP Oracle: Database Administration 3
+ CIS154 Database Modeling and Design 3
+ CIS164AB Oracle: PL/SQL Programming 3


## Related Area (2-9 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses CIS++++++ Any CIS Computer Information Systems courses CLD+++++ Any CLD Cloud Computing courses CNT++++++ Any CNT Cisco Network Technology courses ITS+++++ Any ITS Information Technology Security courses MST+++++ Any MST Microsoft Technology courses

Specialization 8: Programming and Systems Analysis Level I Credits: 32-38

## Information Technology Core (21-22 credits)

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3
CIS133DA Internet/Web Development Levell 3

+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
CIS224 Project Management Microsoft Project for Windows (3) OR
+ CIS250 Management of Information Systems (3) 3
Programming and Systems Analysis (9 credits)
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CIS165++ Any Mobile Application Development course (3) 3
+ CIS166++ Any Web Scripting course 3
GBS151 Introduction to Business 3


## Related Area Credits (1-8 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses
CIS+++++ Any CIS Computer Information Systems courses
CLD++++++ Any CLD Cloud Computing courses
CNT++++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses MST+++++ Any MST Microsoft Technology courses

## Specialization 9: Redhat Linux Engineer

Credits: 32-38

```
Information Technology Core - 21-22 credits
CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) }
CIS126RH Red Hat System Administration I 3
CIS133DA Internet/Web Development Level I }
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) }
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
CIS224 Project Management Microsoft Project for Windows (3)
OR
+ CIS250 Management of Information Systems (3) }
Redhat Linux Engineer (6 credits)
+ CIS238RH Red Hat System Administration II 3
+ CIS240RH Red Hat System Administration III 3
```


## Related Area (5-11 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses CIS+++++ Any CIS Computer Information Systems courses CLD+++++ Any CLD Cloud Computing courses
CNT++++++ Any CNT Cisco Network Technology courses
ITS+++++ Any ITS Information Technology Security courses
MST+++++ Any MST Microsoft Technology courses

## Specialization 10: Web Foundations

Credits: 36-38
Information Technology Core-21-22 credits

+ BPC270 A+ Exam Prep: Operating System Configuration and
Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR

```
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) }
CIS133DA Internet/Web Development Level I }
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) }
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
```

CIS224 Project Management Microsoft Project for Windows (3)
OR

+ CIS250 Management of Information Systems (3) 3


## Web Foundation ( 15 credits)

CIS120DF Introduction to Adobe Photoshop 3 CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3


## Related Area (0-2 credits)

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses CIS+++++ Any CIS Computer Information Systems courses CLD++++++ Any CLD Cloud Computing courses CNT++++++ Any CNT Cisco Network Technology courses ITS+++++ Any ITS Information Technology Security courses MST+++++ Any MST Microsoft Technology courses

Specialization 11: A related Certificate of Completion (CCL) at the discretion of the Program Director (minimum of 11 credits) AND the following core courses with permission of the Program Director.

## Information Technology Core (21-22 credits)

CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
+ BPC270 A+ Exam Prep: Operating System Configuration and
Support (3) OR
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
MST150++ Microsoft Windows (3) 3

```
+ CIS150AB Object-Oriented Programming Fundamentals (3) OR
+ CIS156 Python Programming: Level I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) }
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
```

CIS133DA Internet/Web Development Level I 3

+ CIS224 Project Management Microsoft Project for Windows
(3) OR
CIS250 Management of Information Systems (3) 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-28

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Equivalent or higher-level mathematics course in the
Mathematical Applications [MA] area (3-6) 3-6
GENERAL EDUCATION DISTRIBUTION
Credits: 10


## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Science [SG] or [SQ] area

## Law Enforcement Training

Major Code: 3188
Total Credits: 63-71

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Sciences and Human Services

Description: The Associate in Applied Science (AAS) in Law Enforcement Training is designed to provide students with up-to-date industry specific training that will enhance their professional opportunities. Courses are also designed to teach students how to handle the challenges of the law enforcement profession. A Certificate of Completion (CCL) in Law Enforcement Training Academy is also available.

Program Notes: Students must earn a grade of $C$ or better in all courses within the program.

Admission Criteria: Must meet AzPOST minimum requirements for a law enforcement officer and meet any physical requirements by the Academy Director.

## Required Courses

Credits: 41-43

AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS113 Criminal Justice Crime Control Policies and Practices 3
AJS151 Firearms I 1

+ AJS153 Firearms II/Handguns 1
AJS154 Firearms III/Long Weapons 1
AJS162 Domestic Violence 3
AJS201 Rules of Evidence 3
AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS210 Constitutional Law 3
AJS215 Criminalistics: Physical Evidence 3
AJS230 The Police Function 3
AJS260 Procedural Criminal Law 3
AJS270 Community Relations 3
AJS275 Criminal Investigation I 3
AJS290BN Courtroom Testimony Seminar 1

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## General Education Requirement

Credits: 22-28 credits

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6

Recommend for transfer to a university or MCCCD bachelor's program:

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM110 or COM230 is recommended)


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course in the Mathematics area (3-6) 3-6

Recommend for transfer:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Any higher approved general education course in the Mathematical Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course in the Humanities, Arts and Design area
(AJS123 is recommended)

## Social-Behavioral Sciences (3 credits)

Any approved general education course in the Social-Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences area

## Management

Major Code: 3070
Total Credits: 62-69
Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Associate in Applied Science (AAS) in Management program is designed to provide skills for management careers. Students completing this program are better equipped to apply competencies needed for successful performance in management occupations such as manufacturing, wholesaling, retailing, and service industries. The Certificate of Completion (CCL) in Management is fully embedded in this AAS. The following Certificates of Completion (CCL) are also available based on chosen restricted electives: Human Resources Management, Project Management, Business Administration, Supervision and Management, and Organizational Leadership.

Program Notes: Students must earn a grade of C or better for all courses required in the program.

## Required Courses

Credits: 22-24
ACC111 Accounting Principles I 3
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
GBS120 Workplace Communication Skills 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT229 Management and Leadership I 3
MGT251 Human Relations in Business 3

## Restricted Electives

Credits: 18
Students should select 18 credits from the following courses in consultation with a Department Advisor. Courses cannot be shared with Required Courses.

ACC110 Understanding and Using Accounting Systems (3) OR

+ ACC112 Accounting Principles II (3) 3

CIS114DE Excel Spreadsheet 3
CIS224 Project Management Microsoft Project for Windows 3
GBS131 Business Calculations 3
IBS101 Introduction to International Business 3
MKT271 Principles of Marketing 3
MGT+++ Any MGT Management course(s) (except courses used to satisfy Required Courses area) 3
TQM230 Teamwork Dynamics 2
TQM240 Project Management in Quality Organizations 3

## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 12-17
First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits)

Any approved general education course from the Mathematics [MA] area (3-5) 3-5

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

SBU200 Society and Business 3

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences (Quantitative) [SO] area or the Natural Sciences (General) [SG] area

## Marketing and Sales

Major Code: 3094
Total Credits: 62-69
Academic Department: Business and Information Technology Program of Study: Marketing
Field of Interest: Business, Entrepreneurialism and Management

Description: The Associate in Applied Science (AAS) in Marketing and Sales program is designed to develop competencies essential for success in marketing and personal selling. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations, including wholesaling, retailing, professional sales, and entrepreneurship. Certificates of Completion (CCL) in Marketing and Social Media Marketing are available.

Program Notes: Students must earn a grade of $C$ or better for all courses in the program.

## Required Courses

Credits: 25-27

## ACC111 Accounting Principles I 3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3

GBS151 Introduction to Business 3
MKT110 Marketing and Social Networking 3
MKT263 Advertising Principles 3
MKT267 Principles of Sales 3
MKT271 Principles of Marketing 3

## Restricted Electives

Credits: 15
Students should select 15 credits from the following courses in consultation with a Department Advisor.

CIS103 Introduction to Social Media 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
IBS101 Introduction to International Business 3
MGT126 Customer Service Skills and Strategies 3
MGT251 Human Relations in Business 3
MKT+++ Any MKT Marketing courses except courses used to satisfy the Required Courses area. 3-15

## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 12-17

## First-Year Composition (6 credits)

Any approved general education courses from the First-Year Composition area (6) 6

## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits)

Any approved general education course from the Mathematics area (3-5) 3-5

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

SBU200 Society and Business 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Music Industries: Music Business

Major Code: 3017
Total Credits: 61-70

Academic Department: Performing Arts
Program of Study: Music Industry Studies
Field of Interest: Visual and Performing Arts
Description: The Associate in Applied Science (AAS) in Music Industries: Music Business is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines theoretical and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. Students will choose a focus area among business and marketing, commercial performance, and music production. They will employ
analytical and communication skills and explore aesthetic, cultural, and historical perspectives relevant to the music industry.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 26-29
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
MGT253 Owning and Operating a Small Business 3
MKT110 Marketing and Social Networking 3
MKT271 Principles of Marketing 3
MUC109 Music Business: Content Creation and Copyright 3
MUC110 Music Business: Marketing and Monetization 3

+ MTC180 Computer Literacy for Musicians (3) OR
+ MUC180 Computer Literacy for the Music Business (3) 3
Note: Students who have not already completed MTC180 must take MUC180
+ MUC209 Music Industry Entrepreneurship 3
MUC293 Self Promotion for Music 1


## Music Industry Capstone Experience

+ MUC290AA Music Business Internship (1) OR
+ MUC296WA Cooperative Education (1) OR
+ MUC298AA Special Projects (1) 1


## Overview of Music Genres

MHL155 Survey of American Music (3) OR
MUC242 Music Genres and Styles (2) 2-3

Restricted Electives: 12-13 credits
Students should work with their program advisor to select 12-
13 credits from courses that align with the academic/career goals and further their development in the areas of music business and marketing, music production, and commercial performance. Courses from required courses area may not be used.

## Business and Marketing

GBS+++ Any GBS General Business course(s)
MKT+++ Any MKT Marketing course(s)
MUC+++ Any MUC Music: Commercial/Business course(s)

## Commercial Performance

MTC+++ Any MTC Music: Theory/Composition course(s)
MUP+++ Any MUP Music: Performance course(s)

## Music Production

MTC+++ Any MTC Music: Theory/Composition course(s)
MUC+++ Any MUC Music: Commercial/Business course(s)

## General Electives: 0-1 credits

Select courses 100-level or higher to complete the minimum credits required for this degree. Consult with an Academic and/or Program Advisor.

## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition ( 6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Note: ENG101 or ENG107 and ENG102 or ENG108 are recommended for students who intend to transfer.


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Note: Consult with an academic advisor about specific COM requirements if intending to transfer.


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Network and Systems Administration

Major Code: 3189
Total Credits: 61-74

Academic Department: Business and Information Technology; Technology and Consumer Sciences
Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Associate in Applied Science (AAS) in Network and Systems Administration program provides students with a solid, hands-on skill set of computer, networking, and internetworking systems technology principles and desktop support. Students gain an understanding of the interaction between microcomputer software and hardware, network and internetworking operating systems software and hardware, local area network administration and management, the use of troubleshooting techniques, troubleshooting hardware and software tools, as well as interpersonal/customer service skills. Students have the opportunity to specialize in specific information technology areas based on their interests and professional goals and leading to industry recognized certifications through an embedded Certificate of Completion (CCL) including, but not limited to, Desktop (Desktop Support, Computer System Configuration and Support, Computer System Configuration and Support, Network, Computer System Configuration and Support, Security, Computer System Configuration and Support, Linux), Cisco (Cisco Network CCNA, Cisco Network CCNP, Cisco Network CCNA Security), Linux (Red Hat Linux Engineer, Linux Associate, Red Hat Linux Administrator, Linux System Administration), Microsoft (Microsoft System Administration, Microsoft Desktop Associate), and VMware (VMware Network Administrator, VMware Foundations, VMware System Administrator).
Graduates may pursue employment in a variety of information technology environments and/or transfer to a university.

Program Notes: Students must earn a grade of $C$ or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students may receive credit for courses within the program based on current industry certifications.

## Required Courses

Credits: 31-46
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and
Support 3
CIS102DA Customer User Support 3
CIS105 Survey of Computer Information Systems 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
(CNT140AB is required for students on the Cisco specialization)
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
Students must also select from one of the following
specializations based on their career goals.

```
Specialization 1: Cisco System Administration (CCNA) and
Security (12 credits)
+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
+ CNT205 Cisco Certified Network Associate Security (4) 4
```

Specialization 2: Cisco System Administration (CCNP) (24
credits)

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT240 Cisco Certified Network Professional: Enterprise Core
(8) OR
+ CNT240AA Cisco Certified Network Professional: Enterprise
Core I (4) AND
+ CNT240AB Cisco Certified Network Professional: Enterprise
Core II (4) 8
+ CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR
+ CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4) AND
+ CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8


## Specialization 3: Linux System Administration (15 credits)

+ CIS238DL Linux System Administration 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration 3

```
+ CIS271DL Linux Security 3
+ CIS275DL Linux Capstone 3
```

Specialization 4: Red Hat Enterprise Linux Administration (15 credits)

+ CIS238RH Red Hat System Administration II 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240RH Red Hat System Administration III 3
+ CIS271RH Red Hat System Administration IV 3
+ CIS275DL Linux Capstone 3
Specialization 5: Cloud System Administration (15-16 credits)
+ BPC274 Advanced Server Computer Maintenance: Server+ Prep 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
+ CIS239DL Linux Shell Scripting 3
+ CLD110 Amazon Web Services Cloud Foundations (3) OR
+ MST160 Azure Administrator (4) 3-4
+ CLD120 Amazon Web Services Cloud Architect Associate (3) OR
+ MST260 Microsoft Azure Cloud Development and Operations
(3) 3

Specialization 6: VMware Network Administrator (12 credits)
CIS189 Virtualization and IT Solutions for Digital Businesses 3

+ CIS197 VMware ESXI Server Enterprise 3
+ CIS198 VMware vSphere: Optimize and Scale 3
+ CIS200 VMware NSX: Install, Configure, Manage 3


## Restricted Electives

Credits: 0-8

Students must select enough Restricted Elective credits to meet the minimum total program credits. Students may not select the same courses used to satisfy Required Courses or specializations within the Required Courses. Consult with an Academic, Program, or Faculty Advisor to pick courses that align with your career goals.

## Cisco Electives

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT171 CCNA Exam Prep 1
+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
+ CNT205 Cisco Certified Network Associate Security (4) 4
+ CNT206 Cisco Certified Network Associate Wireless 4


## Linux Electives

+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration (3) OR
+ CIS240RH Red Hat System Administration III (3) 3
+ CIS275DL Linux Capstone 3


## Microsoft Electives

CIS121AB Microsoft Command Line Operations 1
CIS121AH Microsoft PowerShell/Command Line Operations 3
MST+++++ Any MST Microsoft Technology course

## Security Electives

+ CIS270 Essentials of Network and Information Security 3
+ CIS271DB Information Security Essentials 3
+ CIS272DB Information Security Principles 3
+ ITS110 Information Security Fundamentals 3


## VMware Electives

CIS189 Virtualization and IT Solutions for Digital Businesses 3

+ CIS197 VMware ESXI Server Enterprise 3
+ CIS198 VMware vSphere: Optimize and Scale 3
+ CIS200 VMware NSX: Install, Configure, Manage 3


## Other Information Technology Electives

+ BPC171 Recycling Used Computer Technology 1-3
CIS111 Ethics in Information Technology 3
CIS124AA Project Management Software: Level I 1
+ CIS124BA Project Management Software: Level II 1
+ CIS156 Python Programming: Level I 3
+ CIS190 Introduction to Networking 3
CIS224 Project Management Microsoft Project for Windows 3
+ CIS240 Local Area Network Planning and Design 3
+ CIS250 Management of Information Systems 3
+ CIS266 Network Integration Capstone 4
+ CIS290++ Computer Information Systems Internship 1-3
+ CIS296++ Cooperative Education 2-3
+ CIS298++ Special Projects 1-3
ITS120 Legal, Ethical, and Regulatory Issues 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
(ENG111 does not count as an ENG Transfer option)

Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Note: COM225 is recommended for students transferring to Northern Arizona University.


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Equivalent or higher-level mathematics course in the
Mathematical Applications area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Nursing <br> Major Code: 3812 <br> Total Credits: 62-75

Academic Department: Nursing
Program of Study: Nursing
Field of Interest: Health Sciences
Description: The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing
(ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA
30326; (404.975.5000); email: info@acennursing.org.
Program offerings: This program is offered at the following sites:

Chandler-Gilbert Community College
Estrella Mountain Community College
GateWay Community College
Glendale Community College
Mesa Community College
Paradise Valley Community College
Phoenix College
Scottsdale Community College
Waiver of Licensure/Certification Guarantee: Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B) (17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration: It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must
provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

## Health and Safety Requirements for the MaricopaNursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.

University Transfer Students: Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## REGISTERED NURSE PATHWAY

## Associate in Applied Science Degree in Nursing Program

 The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.Program Notes: Students must earn a grade of C or better in all courses required within the program.

Students must complete the following general education and introductory courses with a 2.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core
curriculum. BIO156 or BIO181, BIO201, CHM130 and CHM130LL, CHM130AA, ENG101 or ENG107, MAT140 or MAT141 or MAT142.

Course Fee Information: Please see class schedule for information regarding course fees.

MaricopaNursing is aligned with Nurse of the Future Competencies: Person-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria: High school diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the 'Declaration of High School Graduation or GED Completion.' In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required. There are limited spaces available in the Nursing program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort. A passing score on a nursing program admission test is required to complete an application.

Successful completion of a nurse assistant course (course must include an in-person clinical component) or certification or licensure as a Nurse Assistant is required to complete an application. The Nurse Assistant course does not have to be completed at a Maricopa college and certification or licensure is not required to apply. There is currently no time limit on when the Nurse Assistant course was taken.

Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3. The final placement decision rests with the Nursing Program Chair at the college to which the student is accepted. Advanced placement applications are maintained for two years from the date of application. After two years, the applicant is required to review, update, and resubmit the application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate or license as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

## Required Courses

Credits: 40-48

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) OR
One year of high school biology (0) 0-4
+ BIO201 Human Anatomy and Physiology I 4
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) OR
+ CHM130AA Fundamental Chemistry with Lab (4) OR
One year of high school chemistry (0) 0-4
+ NUR152 Nursing Theory and Science I 9
+ NUR172 Nursing Theory and Science II 9
+ NUR252 Nursing Theory and Science III 9
+ NUR283 Nursing Theory and Science IV 9


## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 9-14 credits

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 3


## Oral Communication (0 credits)

Waived

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher-level math course 3-5


## GENERAL EDUCATION DISTRIBUTION

## Credits: 13

## Humanities, Arts and Design (2 credits)

Any approved general education course in the Humanities, Arts and Design area

## Social-Behavioral Sciences ( 3 credits)

PSY101 Introduction to Psychology 3

## Natural Sciences (8 credits)

+ BIO202 Human Anatomy and Physiology II (4) AND
+ BIO205 Microbiology (4) 8


## Organizational Management

Major Code: 3727
Total Credits: 61-68
Academic Department: Business and Information Technology
Program of Study: Business and Organizational Management
Field of Interest: Business, Entrepreneurialism and
Management
Description: The Associate in Applied Science (AAS) in Organizational Management program is designed with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. A Certificate of Completion (CCL) in Organizational Leadership is fully embedded in this AAS.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 19-22
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
Certificate of Completion in Organizational Leadership (5731) Requirements listed below

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
GBS110 Human Relations in Business and Industry (3) OR
MGT251 Human Relations in Business (3) 3
GBS120 Workplace Communication Skills 3
GBS151 Introduction to Business 3

MGT175 Business Organization and Management (3) OR
TQM240 Project Management in Quality Organizations (3) 3
MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3

## Restricted Electives

Credits: 20

Students must choose 20 industry/job related course credits from any MCCCD occupational program and/or Academic Certificate.

Industry/job related course credits must include a minimum of 9 credits with a common subject or theme. Program of study must be approved by the business department chair or designee.

## General Education Requirement

Credits: 22-27

## GENERAL EDUCATION CORE

Credits: 12-17

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course from the Oral Communication area (3) 3

## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent by assessment 0-3


## Mathematics (3-5 credits)

Any approved general education course from the Mathematics area (3-5) 3-5

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences
(Quantitative) [SO] area or the Natural Sciences (General) [SG] area

## Paramedicine

Major Code: 3889
Total Credits: 63-75
Academic Department: Public Safety Sciences
Program of Study: Paramedicine
Field of Interest: Health Sciences
Description: The Associate in Applied Sciences (AAS) in Paramedicine is a nationally accredited program designed to prepare students to become Paramedics. This program is a formal education in such paramedicine topics as anatomy and physiology, pathophysiology, cardiology, pulmonary, pharmacology, pediatrics, geriatrics hematology, toxicology. Paramedicine builds upon EMT education and includes paramedic scope of practice. Paramedicine is integrated with fire service, law enforcement, ground transport services, flight transport services, search and rescue, hospitals, clinical setting, community paramedicine, and EMS education. There is a Certificate of Completion (CCL) in Paramedicine available.

Program Notes: Students must earn a grade of B or better in all PME courses required within the program.

Admission Criteria: Students must be current and in good standing with the Arizona Department of Health Services Bureau of Emergency Medical Services-Certified as an Emergency Medical Technician. EMT certification preparatory courses are available at Maricopa County Community Colleges. Contact an academic advisor for details.

Students must complete an application and selection process.

## Required Courses

Credits: 45-51
BIO160 Introduction to Human Anatomy and Physiology 4
PME190 Introduction to ECG Rhythm Analysis and
Interpretation for EMS Professionals (3) OR
Permission of Program Director (0) 0-3
PME191 Introduction to Pharmacology for EMS Professionals
(3) OR

Permission of Program Director (0) 0-3

+ PME201 Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine 1
+ PME202 Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine 1
+ PME203 Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine 1

```
+ PME204 Neonatal Resuscitation Provider (NRP) in Paramedicine
0.5
+ PME205 Advanced Medical Life Support (AMLS) Initial Provider
in Paramedicine 1
+ PME206 International Trauma Life Support (ITLS) Provider/Pre-
Hospital Trauma Life Support (PHTLS) 1
+ PME240 Pharmacology in Paramedicine 3
+ PME245 Airway and Ventilatory Management in Paramedicine 3
+ PME250 Comprehensive Patient Assessment in Paramedicine 1
+ PME251 Medical Emergencies in Paramedicine I }
+ PME252 Medical Emergencies in Paramedicine II 4
+ PME253 Medical Emergencies in Paramedicine III 4
+ PME254 Technical Operations in Paramedicine 2.5
+ PME260 Trauma Patient Management in Paramedicine 2
+ PME270 Immersive Total Patient Management Experience
(ITPME) 2
+ PME280 Preparation for Paramedicine Practicum 1
+ PME281 Paramedicine Clinical Practicum: Comprehensive (2)
OR
+ PME281AA Paramedicine Clinical Practicum: Phase I (1) AND
+ PME281AB Paramedicine Clinical Practicum: Phase II (1) }
+ PME288 Paramedicine Comprehensive Field Internship
Practicum 5
+ PME289 Preparation for Paramedic National Credentialing 2
```


## General Education Requirement

Credits: 18-24

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Note: COM225 is recommended for students who intend to transfer to satisfy the AGEC-A literacy requirement. COM110 or COM230 recommended for students who do not intend to transfer.

## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
MAT126 Intermediate Algebra with Review (6) 3-6

Note: MAT150, or MAT151, or MAT152 recommended for students who intend to transfer

## GENERAL EDUCATION DISTRIBUTION

Credits: 6

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

## Natural Sciences (0 credits)

Met by BIO160 in the Required Courses area

## Photography

Major Code: 3195
Total Credits: 61-67

Academic Department: Art and Humanities
Program of Study: Photography
Field of Interest: Visual and Performing Arts

Description: The Associate in Applied Science (AAS) in Photography program is designed for the student who wishes to pursue a career in photography, either commercial or fine arts. Students will study digital and traditional film-based (darkroom) media, content and image selection, and the theory and practice of visual communication.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

There will be costs for supplies and equipment in this program.

## Required Courses

Credits: 27-31

ARH101 Art from Prehistory Through Middle Ages (3) OR
ARH102 Art from Renaissance to Modernism (3) 3

ARH115 History of Photography 3
ART100 Introduction to Digital Arts 1
ART112 Two-Dimensional Design 3
ART113 Color 3
ART131 Photography I 3

+ ART132 Photography II 3
ART142 Introduction to Digital Photography 3
+ ART143 Intermediate Digital Photography 3

```
ART255 Art Marketing (3) OR
ART255AB The Portfolio (1) 1-3
```

FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 8-20

Complete all courses in the specialization below that best aligns with your academic and professional goals.

Specialization 1: Commercial Photography (13-20 credits)

+ ART138 Commercial Photography I 3
+ ART139 Commercial Photography II 3
+ ART140 Portrait Photography (3) OR
+ ART237 Fashion Photography (3) 3

MKT110 Marketing and Social Networking (3) OR
MKT263 Advertising Principles (3) OR
MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2) 2-3

SBS200 Small Business Operations 2

In consultation with advisor or program coordinator, choose up to six (6) credits of coursework from the following list to best fulfill goals and complete the minimum total program credits required for this degree.

```
+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I }
ART111 Drawing I }
ART116 Life Drawing I }
ART137 Alternative Photographic Processes 3
+ ART178 Digital Arts Studies 3
+ ART181 Graphic Design I }
+ ART234 Color Photography I 3
+ ART270 Digital Photographic Imaging II 3
+ ART290AC Studio Art 3
+ ART290EC Studio Art: Photography 3
+ ART290MC Studio Art: Digital Photography }
+ ART295DA Art Workshop/Seminar: Photography 1
+ ART295DB Art Workshop/Seminar: Photography }
+ ART295DC Art Workshop/Seminar: Photography 3
+ ART297AA Commercial Art Internship (1) OR
+ ART297AB Commercial Art Internship (2) 1-2
```

FMP108 Video Production 3

## Specialization 2: Fine Art Photography (8-15 credits)

+ ART133 Photography III 3
ART137 Alternative Photographic Processes 3

Select 2-9 credits from the following:

+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I 3
ART111 Drawing I 3
ART116 Life Drawing I 3
+ ART134 Photography IV 3
+ ART178 Digital Arts Studies 3
+ ART234 Color Photography I 3
+ ART250 Introduction to Printmaking 3
+ ART270 Digital Photographic Imaging II 3
+ ART274 Digital Photographic Imaging III 3
+ ART290AC Studio Art 3
+ ART290EC Studio Art: Photography 3
+ ART290MC Studio Art: Digital Photography 3
+ ART295DA Art Workshop/Seminar: Photography 1
+ ART295DB Art Workshop/Seminar: Photography 2
+ ART295DC Art Workshop/Seminar: Photography 3
ART297AA Commercial Art Internship 1
SBS200 Small Business Operations 2
SBS204 Small Business Marketing and Advertising 2


## General Electives

Credits: 0-7

Select courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with the Program Director or an Academic Advisor.

Recommend that students interested in transferring to a fouryear institution to earn a bachelor's degree take courses that fulfill any unmet Arizona General Education Curriculum (AGEC) requirements.

## General Education Requirement

Credits: 19-25

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Any approved general education course in the Mathematical Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

## Credits: 7

## Humanities, Arts and Design (0 credits)

Met by ARH101 OR ARH102 OR ARH115 OR ART131 in Required Courses

## Social-Behavioral Sciences (3 credits)

Any approved general education courses in the SocialBehavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area

## Programming and Systems Analysis

Major Code: 3844
Total Credits: 62-71

Academic Department: Business and Information Technology Program of Study: Programming and Mobile Applications Field of Interest: Computer and Information Technology

Description: The Associate in Applied Science (AAS) in Programming and Systems Analysis program provides an indepth exploration of different computer language and technical skills. The AAS includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. Certificate of Completions (CCLs) in Programming and Systems Analysis Level I and Level II and iOS App Development are also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Consultation with an Academic Advisor is recommended for course selection.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.


Credits: 34-37

CIS105 Survey of Computer Information Systems 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR

+ MST150++ Any Microsoft Windows course (3) 3

CIS133DA Internet/Web Development Level I 3
GBS151 Introduction to Business 3

Students interested in pursuing an iOS Certificate of Completion (CCL) are recommended to take CIS150AB

+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) 3
+ CIS166++ Any Web Scripting course(s) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) OR
+ MST140 Microsoft Networking Essentials (3) 3-4
+ CIS225 Business Systems Analysis and Design (3) OR
+ CIS225AB Object-Oriented Analysis and Design (3) OR
CIS250 Management of Information Systems (3) 3
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select a programming language from below that best aligns with academic and professional goals (2 courses for a total of 6 credits) in one of the following areas:

+ CIS156 Python Programming: Level I (3) AND
+ CIS256 Python Programming: Level II (3) OR
+ CIS159 Visual Basic Programming I (3) AND
+ CIS259 Visual Basic Programming II (3) OR
+ CIS162++ Any C Programming: Level I course (3) AND
+ CIS262++ Any C Programming: Level II course (3) OR
+ CIS163AA Java Programming: Level I (3) AND
+ CIS263AA Java Programming: Level II (3) OR
+ CIS165++ Any Mobile Application Development course (3)
+ CIS265 Advanced iOS Application Development (3) 6


## Restricted Electives

Credits: 6

Students may not use courses from the Required Courses Area.

+ CIS151 Computer Game Development-Level I 3
+ CIS156 Python Programming: Level I 3
+ CIS159 Visual Basic Programming 13
+ CIS162++ Any C Programming: Level I course 3
+ CIS163AA Java Programming: Level I 3
+ CIS165++ Any Mobile Application Development course 3
CIS224 Project Management Microsoft Project for Windows 3
+ CIS251 Computer Game Development-Level II 3
+ CIS256 Python Programming: Level II 3
+ CIS259 Visual Basic Programming II 3
+ CIS262++ Any C Programming: Level II course 3
+ CIS263AA Java Programming: Level II 3
+ CIS265 Advanced iOS Application Development 3
GBS211 Legal, Ethical and Regulatory Issues of the Internet
Studies 3


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course in the Oral Communication area (3) 3

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education courses in the Humanities, Arts and Design [HU] area

## Social-Behavioral Sciences (3 credits)

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences
(Quantitative) [SQ] area or the Natural Sciences (General) [SG]
area

## Retail Management

Major Code: 3048
Total Credits: 62-67

Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Associate in Applied Science (AAS) in Retail Management degree is designed to prepare individuals working in the retail management, food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. A Certificate of Completion (CCL) in Retail Management is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 28-33
Choose one of the following three accounting sequences:

ACC111 Accounting Principles I (3) AND

+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3) 6-9
BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3
MGT180 Retail Management 3
MGT251 Human Relations in Business 3
MGT276 Human Resources Management 3
MKT271 Principles of Marketing 3
SBU200 Society and Business 3

## Restricted Electives

Credits: 9-15

Student must complete an additional 9-15 credits from GBS, MGT, and/or MKT prefixed courses (except courses used to satisfy Required Courses area) to complete the minimum total program credits required for this degree. Must include at least one MKT course.

GBS+++ Any GBS General Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)

General Education Requirement
Credits: 19-25

GENERAL EDUCATION CORE
Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Note: ENG102 or ENG108 recommended for students considering pursuing a bachelor's degree at an Arizona university.


## Oral Communication (3 credits)

COM100 Introduction to Human Communication 3

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area (3-6) 3-6

## GENERAL EDUCATION DISTRIBUTION

## Credits: 7

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (0 credits)

Met by SBU200 in Required Courses area

## Natural Sciences (4 credits)

Any approved general education course from the Natural

## Sciences area

## Video Game Production

Major Code: 3890
Total Credits: 62-79
Academic Department: Business and Information Technology Program of Study: Video Game Production
Field of Interest: Computer and Information Technology
Description: The Associate in Applied Science (AAS) in Video Game Production provides students with the essential skill sets needed to plan, design, and produce video games. The program features interdisciplinary coursework and related studies to build a strong foundation bridging the art and science of video game production. The Associate in Applied Science in Video Game Production`s curriculum brings together business concepts, game technology, game narrative, music, sound design, and animation to prepare students for entry-level careers as a Level Designer, Environment Artist, Production Artist, Character Modeler, Character Animator, Game Designer, Game Developer, Mobile Game Developer, Commercial Artist, Game Writer, Composer and/or Sound Designer. Embedded Certificates of Completion (CCL) are available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Narrative and Video Game Production: Scripting and Coding.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Students interested in transferring should meet with an Academic, Faculty, or Program Director.

GST201 Game Studies is recommended for students who intend to transfer to Arizona State University.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

## Credits: 29-31

In addition to the required course work, students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

+ ADA/ART177 Digital Photographic Imaging I (3) OR CIS120DF Introduction to Adobe Photoshop (3) 3

ART100 Introduction to Digital Arts 1
ART/MMT185 3D Modeling for Animation I (3) OR CIS130DA 3D Studio Max: Modeling (3) 3

Note: ART/MMT185 is recommended for students interested in the Game Art Emphasis and CIS130DA is recommended for students interested in the Coding and Scripting Emphasis

CIS105 Survey of Computer Information Systems 3

+ CIS107 The Electronic Game Industry 3
+ CIS151 Computer Game Development Level I 3
+ CIS251 Computer Game Development Level II 3
CRW176 Writing Narrative for Video Games 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
+ GST202 Games, Culture and Aesthetics 3
MUC122 Sound Design 13


## Restricted Electives

Credits: 14-23
Students must select one (1) of the following four (4)
specializations.

## Specialization 1: Game Art (23 credits)

+ ADA/ART/MMT184 Digital Animation I 3
ART116 Life Drawing 3
ART/COM/STO150 Digital Storytelling 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation
(3) OR
+ CIS230DB 3D Studio Max: Lighting and Rendering (3) 3
+ ART/MMT285 3D Modeling and Animation II (3) OR
+ CIS130DB 3D Studio Max: Animation (3) 3
+ ART287 3D Character Animation 3
+ ART298AB Special Projects 2
Specialization 2: Game Narrative (17 credits)
ART/COM/STO150 Digital Storytelling 3
CRW160 Introduction to Writing Poetry 3

CRW170 Introduction to Writing Fiction 3 CRW190 Introduction to Screenwriting 3

+ CRW270 Intermediate Fiction Writing 3
+ CRW298AB Special Projects 2
Specialization 3 Coding and Scripting Emphasis (14 credits)
CIS120DC Introduction to Adobe Animate 3
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS156 Python Programming: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS298AB Special Projects 2
Specialization 4: Audio and Music (17-18 credits)
+ MUC111 Digital Audio Workstation I (DAW I) 3
MUC191 Electronic Music I (3) OR
MUC194 Audio Mixing Techniques (3) 3
+ MUC192 Electronic Music II (3) OR
+ MUC196 Studio Recording II (3) 3
MUC195 Studio Music Recording I 3
+ MUC222 Sound Design II 3
+ MUC292 Sound Design III (3) OR
+ MUC298AB Special Projects (2) 2-3


## General Education Requirement

Credits: 19-25

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Recommended for students who do not intend to transfer.

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
MAT126 Intermediate Algebra with Review (6) OR

Satisfactory completion of a higher-level mathematics course (3-6) 3-6

Recommended for students who intend to transfer to Arizona State University in the Game Arts, Narrative for Games, or Audio and Music emphases.

```
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6
```

Recommended for students who intend to transfer to Arizona State University in the Scripting and Coding emphasis.

+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 7 credits
Humanities, Arts and Design (0 credits)
Met by GST202 in Required Courses

## Social-Behavioral Sciences (3 credits)

Any approved Social-Behavioral Sciences

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Web Design/Development

Major Code: 3185
Total Credits: 61-74
Academic Department: Business and Information Technology Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Associate in Applied Science (AAS) in Web Design/Development prepares students to design, create, and administer interactive and professional web sites. Courses focus on "hands-on" experience with web publishing, web graphics preparation, scripting, content management systems and e-commerce solutions. The program provides students a pathway to either develop advanced skills in Web Design or Web Development. Certificates of Completion (CCLs) in Foundational Web Technologies, Web Design and Web Development are also available.

Program Notes: Students must earn a grade of C or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 22-24

In addition to the required course work students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

CIS105 Survey of Computer Information Systems 3 CIS120DF Introduction to Adobe Photoshop 3
CIS133DA Internet/Web Development Level I 3
CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 17-22

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Specialization 1: Web Design (17-22 credits)
ADA/ART183 Digital Graphic Arts I (3)
OR
ART100 Introduction to Digital Arts (1) AND
ART181 Graphic Design I (3)
OR
ART112 Two-Dimensional Design (3) 3-4

CIS120DA Introduction to Adobe Premiere (3) OR
CIS120DK Introduction to Digital Video Editing (3) 3

CIS120DB Introduction to Adobe Illustrator 3

CIS120DC Introduction to Adobe Animate (3) OR

+ CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging
(3) 3
+ CIS138DA Desktop Design and Publishing Using Adobe
InDesign 3

Students must select 2-6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business and/or Multimedia.

```
Specialization 2: Web Development (18 credits)
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276++ Any Database Management Systems course (3) }
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) }
+ CIS166AE Web Scripting with PHP: Hypertext Preprocessor
(PHP) }
```

Programming Language: Select two courses for a total of 6 credits

+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS156 Python Programming: Level I 3
+ CIS159 Visual Basic Programming I 3
+ CIS162++ Any C Programming course 3
+ CIS163AA Java Programming: Level I 3
+ CIS165++ Any Mobile Application Development course 3
+ CIS256 Python Programming: Level II 3
+ CIS262AD C\# Level II 3
+ CIS263AA Java Programming: Level II 3
+ CIS265++ Any Advanced Application Development 3
Students must select 3 credits of any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems.


## General Education Requirement

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course from the Oral Communication area

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course in the Mathematics Area (3-6) 3-6

Note: (MAT140, MAT141, MAT142, MAT145, MAT146 College Mathematics) OR (MAT150, MAT151, MAT152, MAT155, MAT156 College Algebra/Functions) OR higher math course with the Mathematical Applications [MA] general education designation recommended for students intending to transfer to a four-year institution.
(MAT187 is recommended for students intending to transfer to ASU (Tempe campus) to earn a BS in Graphic Information Technology)

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

Note: PSY101 Introduction to Psychology is recommended for students intending to transfer to ASU (Polytechnic campus) to earn a BS in Technical Communication (User Experience) or to ASU (Tempe campus) to earn a BS in Graphic Information Technology.

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Certificates

## Academic Certificates

A certificate prepares you for entry-level work in your chosen field and requires fewer classes than our bachelor's degrees, associate degrees, or university transfer options. Credits earned in a certificate program can often be used toward an associate degree. For more information, speak with an advisor.

Students at any Maricopa Community College may need to complete courses at more than one of colleges.

## Chicana and Chicano Studies

Major Code: 6230N
Total Credits: 12-13

Academic Department: Communication and World Languages Program of Study: Ethnic Studies
Field of Interest: Culture and Society

Description: The Academic Certificate (AC) in Chicana and Chicano Studies explores the unique experiences of the Chicana and Chicano people living in the Southwest. The Certificate provides a study of Mexican-American life in the society of the United States, including Mexican background, social and cultural differences, and experiences of assimilation.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

## Program Prerequisites

Credits: 3-6

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3


## Required Courses

Credits: 9

+ CCS101 Chicana and Chicano Studies 3
HIS109 Mexican-American History and Culture 3
SPH245 Hispanic Heritage in the Southwest 3


## Restricted Electives

Credits: 3-4

ENH112 Chicano Literature 3
HIS145 History of Mexico 3
HUM213 Hispanic Film 3

SPA101 Elementary Spanish I 4

+ SPA102 Elementary Spanish II 4
+ SPA103 Elementary Spanish for Spanish Speakers I 4
+ SPA104 Elementary Spanish for Spanish Speakers II 4
+ SPA201 Intermediate Spanish I 4
+ SPA202 Intermediate Spanish II 4
+ SPA203 Spanish for Spanish-Speaking Students 14
+ SPA204 Spanish for Spanish-Speaking Students II 4


## Communication Competence in the Workplace Major Code: 6219N

Total Credits: 30-33

Academic Department: Communication and World Languages
Program of Study: Communication
Field of Interest: Culture and Society

Description: The Academic Certificate (AC) in Communication Competence in the Workplace is an interdisciplinary program of study that provides intensive study of written and oral communication skills in different contexts including interpersonal communication, small group interaction, teambuilding, problem solving, public speaking and presentation skills, conflict resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the Required Courses area.

## Required Courses

Credits: 18-21

COM110 Interpersonal Communication 3

+ COM225 Public Speaking 3
COM230 Small Group Communication 3
+ COM282AC Service-Learning Experience in Communication 3
+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as Indicated by Assessment (0) 0-3
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ ENG102 First-Year Composition (3) OR
+ ENG108 First Year Composition for ESL (3) 3


## Restricted Electives

Credits: 9

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

+ COM207 Introduction to Communication Inquiry 3
+ COM222 Argumentation 3
+ COM/THP241 Oral Interpretation of Literature 3 COM250 Introduction to Organizational Communication 3
+ COM259 Communication in Business and Professions 3
COM263 Elements of Intercultural Communication 3
+ ENG111 Technical and Professional Writing 3
+ GBS233 Business Communication 3
IBS109 Cultural Dimension for International Trade 3
SWU295 Effective Helping in a Diverse World 3


## General Electives

Credits: 3

Any approved General Education course in the Cultural Awareness (C) value (3) OR
COM+++++ Any COM Communication course except courses used to satisfy Required Courses or Restricted Electives areas (3) 3

## Communication Skills for

Non-Native English Speakers
Major Code: 6222N
Total Credits: 30

Academic Department: Communication and World Languages Program of Study: Communication
Field of Interest: Culture and Society

Description: The Academic Certificate (AC) in Communication Skills for Non-Native English Speakers is an interdisciplinary program of study designed to extend traditional ESL coursework. It provides Non-Native English Speakers with oral and written communication skills including interpersonal communication, small group interaction, team-building, problem solving, public speaking and presentation skills, conflict resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the Required Courses area.

|  |  |
| :---: | :---: |
| Required CoursesCredits: 21 |  |
|  | COM120 Pronunciation of American Speech 3 <br> + COM221 Oral Fluency in American Speech 3 <br> + COM282AC Service-Learning Experience in Communication 3 |
|  | COM100 Introduction to Human Communication (3) OR COM110 Interpersonal Communication (3) 3 |
|  | + CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as Indicated by Assessment (0) 3 |
|  | + ENG101 First Year Composition (3) OR <br> + ENG107 First-Year Composition for ESL (3) 3 |
|  | + ENG102 First Year Composition (3) OR <br> + ENG108 First Year Composition for ESL (3) 3 |
|  | Restricted Electives Credits: 9 |
|  | BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3 |
|  | + COM230 Small Group Communication 3 <br> + COM259 Communication in Business and Professions 3 <br> + ENG111 Technical Writing 3 <br> + GBS233 Business Communication 3 <br> IBS109 Cultural Dimension for International Trade 3 <br> SWU295 Effective Helping in a Diverse World 3 |
|  | Any approved General Education course in the Cultural Awareness [C] value (3) OR COM+++ Any COM Communication course (3) 3 |
|  | Creative Writing <br> Major Code: 6224N Total Credits: 24 |
|  | Academic Department: English, Reading, Journalism and Creative Writing <br> Program of Study: Creative Writing <br> Field of Interest: Culture and Society |
|  | Description: The Academic Certificate (AC) in Creative Writing program is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the program, they will build a portfolio of original work that may be submitted for publication. The program offers classes, workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of |

## Required Courses

Credits: 21

COM120 Pronunciation of American Speech 3

+ COM221 Oral Fluency in American Speech 3
+ COM282AC Service-Learning Experience in Communication 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) 3
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as Indicated by Assessment (0) 3
+ ENG101 First Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ ENG102 First Year Composition (3) OR
+ ENG108 First Year Composition for ESL (3) 3


## Restricted Electives

Credits: 9
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

+ COM230 Small Group Communication 3
+ COM259 Communication in Business and Professions 3
+ ENG111 Technical Writing 3
GBS233 Business Communication 3
IBS109 Cultural Dimension for International Trade 3
SWU295 Effective Helping in a Diverse World 3

Any approved General Education course in the Cultural Awareness [C] value (3) OR
COM+++ Any COM Communication course (3) 3

## Creative Writing

Major Code: 6224N
otal Credits: 24

Academic Department: English, Reading, Journalism and Creative Writing
Program of Study: Creative Writing
Field of Interest: Culture and Society
Description: The Academic Certificate (AC) in Creative Writing program is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the ram, they will build a portfolio of original work that may be workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of
academic or professional standing. The program aims to serve a diverse community who may be underrepresented in traditional creative writing programs. Completion of the certificate does not lead to a particular degree program, but may aid students in their pursuit of a career in the writing professions and in their continued enjoyment of writing for personal growth.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: Students who wish to enroll in the Creative Writing program must complete a formal application; contact the Program Director.

## Required Courses

Credits: 21
CRW150 Introduction to Creative Writing 3
(ENG210 may be substituted for CRW150 with permission of Program Director)

+ CRW200 Readings for Writers (1) 2
(CRW200 must be repeated for a total of two credits)


## + CRW201 Portfolio 1

Students must complete six (6) credits from Series 1 and nine
(9) credits from Series 2 in consultation with a Program Director.

Series 1 ( 6 credits)
Students must complete two (2) of the following courses for a total of six (6) credits.

CRW120 Introduction to Writing Children's Literature 3
CRW160 Introduction to Writing Poetry 3
CRW170 Introduction to Writing Fiction 3
CRW172 Introduction to Comic Book Writing 3
CRW180 Introduction to Writing Nonfiction 3
CRW190 Introduction to Screenwriting 3
THE118 Playwriting 3
Series 2 ( 9 credits)
Students must complete three (3) of the following courses for a total of nine (9) credits.

+ CRW202 The Writer as Witness 3
+ CRW203 Dialogue 3
+ CRW204 Journaling 3
+ CRW220 Intermediate Writing Children`s Literature 3
CRW251 Topics in Creative Writing 3
+ CRW260 Intermediate Poetry Writing 3
+ CRW261 Topics in Writing: Poetry 3
+ CRW270 Intermediate Fiction Writing 3
+ CRW271 Topics in Writing: Fiction 3
+ CRW272 Planning and Structuring the Novel 3
+ CRW273 Writing the Novel 3
+ CRW274 Revising the Novel 3
+ CRW281 Topics in Writing: Non-Fiction 3
+ CRW290 Intermediate Screenwriting 3
+ CRW291 Topics in Writing: Plays 3


## Restricted Electives

Credits: 3

CRW+++++ Any CRW Creative Writing course not listed under Required Courses area. 1-3
ENG235 Magazine Article Writing 3

+ ENH+++++ Any ENH English Humanities prefixed course 3
HUM/THF210 Contemporary Cinema 3
THE260 Film Analysis 3


## Language Studies

Major Code: 6237N
Total Credits: 12-18
Academic Department: Communication and World Languages
Program of Study: Language
Field of Interest: Culture and Society
Description: The Academic Certificate (AC) in Language Studies is designed to provide students with a foundation in the study of culture, language, and linguistic structures. Students will have the opportunity to develop oral and written communication skills in a language other than English.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

Students may qualify to enter higher level Spanish courses by placement or may qualify to exempt out of taking any Spanish courses by assessment. Students wishing to earn credit for any course of which they are exempt by assessment should take the CLEP examination or apply credits earned through the Advanced Placement (AP) or International Baccalaureate (IB) exams.

## Program Prerequisites

Credits: 0-4
201-level proficiency in a language other than English as indicated by assessment or coursework.

## Required Courses

Credits: 6-8

SLC201 Introduction to Linguistics 3
AND

Students must choose 3-5 credits in 202 or higher-level coursework in the language used to satisfy the program prerequisites.

## Restricted Electives

Credits: 6-10

Students must choose two (2) courses from the list below. Program Prerequisites may not be used to satisfy the Restricted Electives:

AFR/ASB/CCS202 Ethnic Relations in the United States (3) OR
SOC241 Race and Ethnic Relations (3) 3

+ COM163 Intercultural Communication in Everyday Life 3 COM263 Elements of Intercultural Communication 3

AHU+++ Any AHU Arabic Humanities course(s)
ARB+++ Any ARB Arabic course(s)
ASL+++ Any ASL American Sign Language course(s)
CHI+++ Any CHI Chinese course(s)
FLA+++ Any FLA Foreign Language Acquisition course(s)
FRE+++ Any FRE French course(s)
GER+++ Any GER German course(s)
GRK+++ Any GRK Greek course(s)
HBR+++ Any HBR Hebrew course(s)
IPP+++ Any IPP Interpreter Preparation Program course(s)
ITA+++ Any ITA Italian course(s)
ITH+++ Any ITA Italian Humanities course(s)
JPN+++ Any JPN Japanese course(s)
LAT+++ Any LAT Latin course(s)
NAV+++ Any NAV Navajo course(s)
NVH+++ Any NVH Navajo Humanities course(s)
PIM+++ Any PIM Pima course(s)
POR+++ Any POR Portuguese course(s)]
RUS+++ Any RUS Russian course(s)
SLC+++ Any SLC Studies in Language and Culture course(s)
SPA+++ Any SPA Spanish course(s)
SPH+++ Any SPH Spanish Humanities course(s)
TRS+++ Any TRS Translation and Interpretation course(s)

## Oral Communication Fluency for Non-Native English Speakers

Major Code: 6223N
Total Credits: 15

Academic Department: Communication and World Languages
Program of Study: Communication
Field of Interest: Culture and Society

Description: The Academic Certificate (AC) in Oral
Communication Fluency for Non-Native English Speakers is a concentrated program of study in communication and oral
fluency designed to extend traditional ESL coursework. It provides Non-Native English Speakers with intense practice in pronunciation and fluency of American speech as well as experience in all communication contexts including interpersonal communication, small group interaction, problem solving, and public speaking. Students develop skills to enhance their professional, academic, and social interactions to become more competitive and effective in the academic environment and in the workplace.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of "C" or better for all courses within the Required Courses area.

## Required Courses

Credits: 12

COM110 Interpersonal Communication 3
COM120 Pronunciation of American Speech 3

+ COM221 Oral Fluency in American Speech 3


## Restricted Electives

Credits: 3

Any approved General Education course in the cultural awareness [C] value

## Sustainability

Major Code: 6240N
Total Credits: 15-18

Academic Department: Social Sciences
Program of Study: Sustainability
Field of Interest: Science, Technology, Engineering and Mathematics

Description: The Academic Certificate (AC) in Sustainability is interdisciplinary and builds a strong academic expertise within a student's desired focus area of Sustainability. The focus areas are established within and among the foundational pillars of Sustainability (social - environmental - economic).

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 6

SSH111 Sustainable Cities 3
SUS110 Sustainable World 3

## Restricted Electives

Credits: 9
Students must select three focus area classes.
ASM104 Bones, Stones, and Human Evolution 4
BIO105 Environmental Biology 4
CHM107 Chemistry and Society (3) AND

+ CHM107LL Chemistry and Society Laboratory (1) 4
COM263 Elements of Intercultural Communication 3
ECN212 Microeconomic Principles 3
EPS150 Introduction to Entrepreneurship 3
ENV101 Introduction to Environmental Science 4
FON135 Sustainable Cooking 3
GLG110 Geological Disasters and the Environment (3) AND
GLG111 Geological Disasters and the Environment Lab (1) 4
GPH113 Introduction to Physical Geography 4
PHI216 Environmental Ethics 3
PSY132 Psychology and Culture 3
SBU200 Society and Business 3
SCT100 Introduction to Sustainable Built Environments 3
SUS100 Introduction to Sustainability 3


## Certificates of Completion

A certificate prepares you for entry-level work in your chosen field and requires fewer classes than our bachelor's degrees, Associate degrees, or university transfer options. Credits earned in a certificate program can often be used toward an Associate degree. For more information, speak with an advisor.

Students at any Maricopa Community College may need to complete courses at more than one of our colleges.

## Accounting

## Major Code: 5665

Total Credits: 24-27

Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Accounting program is designed for students seeking to gain skills and knowledge in the field of accounting and tax. Possible entrylevel positions for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, bookkeeper, accounting intern, or comparable positions. An Associate in Applied Science (AAS) in Accounting and a

Certificate of Completion (CCL) in Enrolled Agent are also available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

Consultation with an Academic Advisor is recommended for course selection.

## Required Courses

Credits: 24-27 credits
ACC105 Payroll, Sales and Property Taxes (3) OR

+ ACC222 Payroll Accounting (3) 3
ACC111 Accounting Principles I (3) AND
+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3) 6-9
ACC121 Individual Tax Preparation (3) OR
+ ACC221 Tax Accounting (3) 3
ACC115 Computerized Accounting 3
CIS105 Survey of Computer Information Systems 3
CIS114DE Excel Spreadsheet 3
GBS151 Introduction to Business 3


## Administration of Justice

Major Code: 5007N
Total Credits: 15

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in
Administration of Justice program is designed to be interdisciplinary by nature and provides students with foundational knowledge of the criminal justice system and operational processes for addressing crime within society. This program also examines diverse populations and communities, and their effects on relationships with the criminal justice system. In addition, this program allows students to familiarize themselves with and evaluate various career opportunities in the criminal justice field and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 15 credits

AJS101 Introduction to Criminal Justice 3

AJS109 Substantive Criminal Law (3) OR
AJS260 Procedural Criminal Law (3) 3

AJS123 Ethics and the Administration of Justice 3
AJS230 The Police Function 3
AJS240 The Correction Function 3

## Administrative Professional

Major Code: 5677
Total Credits: 18

Academic Department: Business and Information Technology Program of Study: Business
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in the Administrative Professional program is designed to provide students with basic office skills. This program is recommended for students with little or no office-related work experience or college experience. Includes instruction in business communications, office procedures, and report preparation. An Associate in Applied Science (AAS) in Administrative Professional is available.

Program Notes: Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 18 credits
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3
GBS120 Workplace Communication Skills 3
GBS131 Business Calculations 3
GBS151 Introduction to Business 3

Select three (3) of the following courses:
BPC101AA Introduction to Computers I 1
BPC/OAS111AA Computer Keyboarding I 1
CIS121AE Windows Operating System: Level I 1
CIS121AI Mac Operating System 1

+ CIS122AE Windows Operating System: Level II 1
CIS133AA Internet/Web Development Level I-A 1


## Adobe Foundations:

Animation and Graphics Production
Major Code: 5167N
Total Credits: 9
Academic Department: Business and Information Technology
Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Adobe Foundations: Animation and Graphics Production program helps prepare students to create, edit, and enhance digital images, graphics, and animation for use in web, print, and video. A Certificate of Completion in Adobe Foundations: Video and Audio Production and an Associate in Applied Science (AAS) in Web Design and Development are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9

CIS120DB Introduction to Adobe Illustrator 3
CIS120DC Introduction to Adobe Animate 3
CIS120DF Introduction to Adobe Photoshop 3

## Advanced Behavioral Sciences

Major Code: 5521
Total Credits: 40
Academic Department: Counseling
Program of Study: Behavioral Health Sciences
Field of Interest: Behavioral Sciences and Human Services
Description: The Certificate of Completion (CCL) in Advanced Behavioral Sciences prepares students to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, addictions and substance use, trauma, developmental disabilities, comorbid medical conditions, and challenging behaviors. The program includes courses designed to provide students with the skills necessary to deliver behavioral health and social services through supervised field experience. This program prepares students for industry certification and is embedded in the Associate in Applied Science (AAS) in Behavioral Sciences, and the Bachelor of Science (BS) in Behavioral Sciences available at MCCCD.

Program Notes: Students must earn a grade of C or better in each course in the program.

## Required Courses

Credits: 34

BHS150 Introduction to Behavioral Health and Social Services 3 BHS155 Professional Resiliency and Well-Being 3
BHS160 Ethical, Legal, and Professional Issues in Counseling Services 3
BHS165 Applied Therapeutic Communication Skills 3 BHS170 Case Management and Clinical Documentation 3 BHS180 Child, Family, and Adult Advocacy 3

Note: The above courses are required in the Certificate of Completion (CCL) in Foundations of Behavioral Sciences (5522)

BHS175 Trauma-Informed Care and Recovery Treatment 3 BHS185 Cultural Competence in Behavioral Health 3 + BHS190 Supervised Practice in Behavioral Health and Human Services 1
BHS205 Introduction to Individual Counseling Theories 3 BHS210 Addictions, Substance Use Disorders, and Recovery 3 BHS215 Introduction to Group Therapy 3

## Restricted Electives

Credits: 6

Student must choose six (6) credits from one (1) of the following specializations:

## Specialization 1: Trauma and Crisis Stabilization

BHS230 Crisis and Trauma Stabilization 3
BHS235 Emergency Mental Health Crisis Response and Recovery 3

Specialization 2: Infant and Early Childhood Mental Health BHS275 Infant and Early Childhood Mental Health (3) OR CFS177 Parent-Child Interaction (3) 3

BHS272 Child and Adolescent Mental Health and Interventions 3 CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3

+ EED210 Creative and Cognitive Play 3
(If EED210 is selected, CFS235 will need to be selected (unless another requisite option has been met.)


## Specialization 3: Addiction and Substance Use Disorders

ASD110 Pharmacology of Substances of Abuse and Dependency 3
ASD245 Co-Occurring Disorders (2) AND
ASD120 Professional Ethics in Addictions and Substance Use Disorders (1) OR
ASD145 AIDS and Addiction (1) 3

BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3

## Specialization 4: Developmental Disabilities

BHS271 Developmental Disabilities Assistance Training 3

+ PSY241 Understanding and Changing Behavior 3
+ PSY243 The Psychology of Developmental Disabilities 3
Specialization 5: Criminal Justice and Forensic Science
+ PSY267 Introduction to Forensic Psychology 3

AJS101 Introduction to Criminal Justice (3) OR
AJS200 Current Issues In Criminal Justice (3) OR
AJS225 Criminology (3) 3

Specialization 6: Mental Health
BHS230 Crisis and Trauma Stabilization (3) OR
BHS235 Emergency Mental Health Crisis Response and Recovery (3) 3

BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3
BHS255 Health and Wellness Coaching in Professional Resiliency 3 BHS262 Behavioral Health Service Techniques for the Elderly 3
BHS266 Violence and Abuse Services 3
BHS269 Grief Support Techniques 3
BHS271 Developmental Disabilities Assistance Training 3
BHS272 Child and Adolescent Mental Health and Interventions 3
BHS275 Infant and Early Childhood Mental Health 3
CPD180 Human Resilience: Cognitive, Emotional, and Behavioral
Applications 3

+ PSY266 Psychological Disorders 3


## Amazon Web Services Cloud Associate

Major Code: 5330N)
Total Credits: 3-6
Academic Department: Technology and Consumer Sciences
Program of Study: Computer Information Systems
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Associate builds the knowledge and skills to design, plan, and implement a cloud solution architecture. Students will be introduced to concepts and hands-on opportunities to manage cloud systems/architectures for real world-applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the AWS Certified Solutions Architect - Associate examination, which is the second level of the AWS certifications.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CLD, CNT, ITS, and MST.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

## Required Courses

Credits: 3-6
CLD110 Amazon Web Services Cloud Foundations (3) OR Certificate of Completion in Amazon Web Services Cloud Practitioner (5141N) (3) OR
AWS Certified Cloud Practitioner certification badge (0) OR Permission of Program Director (0) 0-3
(CCL/5141N is not eligible for Title IV Federal Financial Aid)

+ CLD120 Amazon Web Services Cloud Architect Associate 3


## Amazon Web Services Cloud Practitioner <br> Major Code: 5141N <br> Total Credits: 3

Academic Department: Technology and Consumer Sciences Program of Study: Computer Information Systems Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Amazon Web Services Cloud Practitioner builds the practical knowledge and skills of cloud computing. Cloud computing provides reliable, scalable, secure, and flexible technology solutions for personal and business use. This CCL will introduce students new to or interested in cloud computing to the fundamental concepts of cloud services as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Amazon Web Services (AWS) Certified Cloud Practitioner exam, which is the first level of the AWS certification.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

## Required Courses

Credits: 3
CLD110 Amazon Web Services Cloud Foundations 3

## Amazon Web Services Cloud Specialist

Major Code: 5331N
Total Credits: 3-9

Academic Department: Technology and Consumer Sciences Program of Study: Computer Information Systems Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Specialist builds the requisite knowledge and skills to perform core Amazon Web Services (AWS) services in a manner that is based on compute, data, security and requirements as well as AWS best practices. Students select a specialization in either Developer or SysOps. Developer focuses on developing, deploying and debugging cloud-based applications using AWS. SysOps focuses on deploying, managing and operating scalable, highly available, and fault tolerant systems on AWS.

Students will have hands-on opportunities to manage cloud systems/architectures for real world-scenarios. Students with the requisite prior experience in the field who complete this CCL can pursue employment in a variety of information technology jobs.

This CCL also helps to prepare students for industry-standard certification as either AWS Certified Developer - Associate or AWS Certified SysOps Administrator - Associate based on their emphasis.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the CCL to be
applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

## Required Courses

## Credits: 3-9

CLD110 Amazon Web Services Cloud Foundations (3) OR AWS Cloud Practitioner Certification (0) OR
Permission of Program Director (0) 0-3

+ CLD120 Amazon Web Services Cloud Architect Associate (3) OR
AWS Certified Solutions Architect - Associate certification (0) OR
Permission of Program Director (0) 0-3
Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.


## Specialization 1: AWS Certified Developer - Associate

+ CLD130 Amazon Web Services Cloud Developing 3
Specialization 2: AWS Certified SysOps Administrator Associate
+ CLD140 Amazon Web Services Cloud Operations 3


## Animation

Major Code: 5169
Total Credits: 40

Academic Department: Art and Humanities
Program of Study: Digital Arts
Field of Interest: Visual and Performing Arts
Description: The Certificate of Completion (CCL) in Animation develops knowledge and skills in the area of digital animation, including but not limited to the production of still and timebased media, animation techniques, narrative development, character design, compositing, motion graphics, and interactive design. The curriculum is designed to provide the student with an understanding of animation techniques, use of production equipment, animation terminology, media and interactivity applications, and industry practices. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as digital animators, media producers, storyboard artists, media artist/designers, and
interaction designers. Certificates of Completion (CCL) in Video Game Production, and Associate in Applied Science (AAS) degrees in Animation and Time-Based Media and Video Game Production, are also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

This CCL is designed for individuals who already have a degree or relevant experience in the field or who are currently employed in the field.

## Required Courses

Credits: 40

+ ADA/ART169 2D Media Design (3) OR
+ ART178 Digital Arts Studies (3) 3
+ ADA/ART177 Digital Photographic Imaging I 3
+ ADA/ART/MMT184 Digital Animation 13
ART100 Introduction to Digital Arts 1
ART111 Drawing I 3
ART116 Life Drawing I 3
ART/COM/STO150 Digital Storytelling (3) OR
CRW150 Introduction to Creative Writing (3) OR
CRW172 Introduction to Comic Book Writing (3) OR
CRW176 Writing Narrative for Video Games (3) OR
FMT121 Story Theory for Film, Television and Media (3) 3
+ ART170 3D Computer Design (3) OR
ART/THP246 Digital Fabrication (3) 3
+ ART/MMT185 3D Modeling for Animation I 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
+ ART284 Digital Animation II 3
+ ART/MMT285 3D Modeling and Animation II 3
+ ART287 3D Character Animation 3


## Audio Production Technologies

Major Code: 5334
Total Credits: 39-40
Academic Department: Performing Arts
Program of Study: Music Industry Studies
Field of Interest: Visual and Performing Arts
Description: The Certificate of Completion (CCL) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge
and experience essential in the field of audio production. An Associate in Applied Science (AAS) is also available.

Program Notes: Students must earn a grade of $C$ or better in all courses within the program.

## Required Courses

Credits: 30-31

MTC101 Introduction to Music Theory 3
MUC109 Music Business: Content Creation and Copyright 3

MUC110 Music Business: Marketing and Monetization (3) OR
MUC145 Recording Studio Business Operations (2) 2-3

+ MUC111 Digital Audio Workstation I (DAW I) 3
MUC191 Electronic Music I 3
+ MUC192 Electronic Music II 3
+ MUC194 Audio Mixing Techniques 3

MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3

+ MUC196 Studio Music Recording II (3) OR
+ MUC196AA Studio Music Recording II (3) 3

MUC197 Live Sound Reinforcement I 3

+ MUC296WA Cooperative Education (1) OR
+ MUC297AA Audio Production Internship (1) OR
MUC298AA Special Projects (1) 1


## Restricted Electives

Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor. NOTE: At least one (1) of the following courses must be completed: MUC289, MUC291, MUC292, or MUC295.

+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC122 Sound Design I 3
+ MUC193 Computer-Based Sound Synthesis 3
+ MUC198 Live Sound Reinforcement II 3
+ MUC222 Sound Design II 3
+ MUC289 Live Sound Reinforcement III 3
+ MUC291 Electronic Music III 3
+ MUC292 Sound Design III 3
+ MUC295 Studio Music Recording III 3


## Automotive Automatic Transmission and Transaxle <br> Major Code: 5930N <br> Total Credits: 4

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Automatic Transmission and Transaxle provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic transmission and transaxle. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2 Test.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

## Automotive Brake Systems

Major Code: 5936N
Total Credits: 4

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology
Description: The Certificate of Completion (CCL) in Automotive Brake Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of brake systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A5 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

## Automotive Chassis

## Major Code: 5952

Total Credits: 16

Academic Department: Automotive Technology

## Program of Study: Automotive Service

Field of Interest: Applied Technology
Description: The Certificate of Completion (CCL) in Automotive Chassis provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of suspension, steering, brakes and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4, A5 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16

ASE140 Automotive Steering, Suspension and Alignment (4) OR ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4
ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4


## Automotive Drive Train

Major Code: 5950
Total Credits: 16
Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Drive Train provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic and manual transmissions and drivetrains and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2, A3 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4


## Automotive Electrical, Heating, Ventilation and Air Conditioning Systems

Major Code: 5948N
Total Credits: 12

Academic Department: Automotive Technology Program of Study: Automotive Service Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Electrical, Heating, Ventilation and Air Conditioning Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electrical systems and heating, ventilation and air conditioning. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 12

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4


## Automotive Electronic/Electrical Systems

## Major Code: 5938N

Total Credits: 8

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Electronic/Electrical Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electronic/electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A6 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 8

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4


## Automotive Engine and Operations Management <br> Major Code: 5942N <br> Total Credits: 8

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Engine and Operations Management provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine performance. The
curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A8 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 8

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

## Automotive Engine Management and Repair Major Code: 5946 <br> Total Credits: 22

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Maintenance and Light Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of basic electrical and mechanical maintenance and repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 22

ASE100 Introduction to Automotive Service 2

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

## Automotive Engine Repair

Major Code: 5928N
Total Credits: 6

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology
Description: The Certificate of Completion (CCL) in Automotive Engine Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 6

ASE100 Introduction to Automotive Service 2
ASE110 Engine Fundamentals 4

## Automotive Heating, Ventilation and Air Conditioning Systems <br> Major Code: 5940N <br> Total Credits: 4

Academic Department: Automotive Technology Program of Study: Automotive Service Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Heating, Ventilation and Air Conditioning (HVAC) Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of HVAC systems. The curriculum within this certificate aligns with
the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air
Conditioning Systems (4) 4

## Automotive Maintenance and Light Repair

Major Code: 5946
Total Credits: 22

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology
Description: The Certificate of Completion (CCL) in Automotive Maintenance and Light Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of basic electrical and mechanical maintenance and repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 22

ASE100 Introduction to Automotive Service 2

ASE140 Automotive Steering, Suspension and Alignment (4) OR ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4
ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

## Automotive Manual Drive Train and Axles

Major Code: 5932N
Total Credits: 4

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Manual Drive Train and Axles provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of manual drive train and axles. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A3 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

## Automotive Service

Major Code: 5956
Total Credits: 45-48

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The
curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1-A8).

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 42

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR
ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR
ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR
ASE170AU Automotive Heating, Ventilation and Air
Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR
ASE180AU Introduction to Engine Management (4) 4

+ ASE260 Advanced Automotive Electrical (4) OR
+ ASE260AU Advanced Automotive Electrical (4) 4

ASE280 Engine Management (4) OR
ASE280AU Engine Management (4) 4

## Restricted Electives

Credits: 3-8

+ ASE240 Advanced Driver Assistance Systems 2
+ ASE265 Introduction to Electric and Hybrid Vehicles 2
ASE290++ Automotive Service Internship (any suffixed courses)
1-4
ASE296++ Cooperative Education (any suffixed courses) 1-4
ASE298++ Special Projects (any suffixed courses) 1-3

Automotive Steering and Suspension
Major Code: 5943N
Total Credits: 4

Academic Department: Automotive Technology
Program of Study: Automotive Service
Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in Automotive Steering and Suspension provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of steering and suspension. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

## Business Administration Fastrack

Major Code: 5152
Total Credits: 27

Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Business Administration Fastrack program provides opportunities for individuals to update, upgrade, or develop essential business skills. The program`s focus is preparing students for job advancement and career opportunities in today's business environment as defined by industry practitioners. Each course includes learning activities and projects which may be offered in an accelerated five-week or eight-week format. Additional features of the program include: student directed learning stressing the dynamic business environment, communication skills, leadership development, and performing effectively within a team environment.

Program Notes: Students must earn a grade of $C$ or better in all courses in the program.

## Required Courses

Credits: 27

ACC110 Understanding and Using Accounting Systems (3) OR ACC111 Accounting Principles I (3) 3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

GBS120 Workplace Communication Skills 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT126 Customer Service Skills and Strategies 3
MGT175 Business Organization and Management 3
MGT251 Human Relations in Business 3
MKT271 Principles of Marketing 3

## CAD Application

Major Code: 5410N
Total Credits: 12-37

Academic Department: Technology and Consumer Sciences Program of Study: Computer Assisted Design and Drafting Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in CAD Application program is designed to broaden students` design exposure and Computer-Aided Design (CAD) technology skills. Students will utilize industry standard CAD and building information modeling (BIM) software to produce threedimensional (3D) drawings and parametric models. This will include presentation methods and construction documentation conventions for either the architecture or civil design fields. Students may apply these courses toward the Associate in Applied Science (AAS) degree in Architectural and Civil CAD Technology.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the program.

## Required Courses

Credits: 6-31

CAD100 Fundamentals of 2D AutoCAD (3) AND

+ CAD101 Elements of CAD Graphics (AutoCAD) (3) AND
+ CAD145 Design Principles for Industry (3) AND
+ CAD201 Three-Dimensional (3D) Modeling and Advanced CAD Techniques (3) AND
+ CAD105 Fundamentals of Revit Architecture (3) OR
+ CAD106 Fundamentals of Civil 3D (3) AND
+ CAD292 Current Developments in CAD Technology (1) OR
Permission of Program Director based on equivalent industry experience (0) 0-16

Students must complete one of the following math requirements:

+ DFT106 Algebra and Graphs for Design Technology (3) AND
+ DFT107 Trigonometry and Analytic Geometry for Design
Technology (3)
OR
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) AND
+ MAT182 Plane Trigonometry (3)
OR
+ MAT187 Precalculus (5) OR
Permission of Program Director based on equivalent industry experience. (0) 0-9
+ CAD167 Architectural Drawings I (Revit): Residential CAD (3)
OR
+ CAD186 Site Development I (3) 3
+ CAD267 Architectural Drawings II (Revit): Commercial CAD (3)
OR
+ CAD286 Site Development II (3) 3


## Restricted Electives

Credits: 6

BLT263++ Any Building Codes course 3

+ CAD167 Architectural Drawings I (Revit): Residential CAD 3
+ CAD186 Site Development I 3
+ CAD235 Modeling, Rendering and Animation for Technical Presentations 3
+ CAD267 Architectural Drawings II (Revit): Commercial CAD 3
+ CAD286 Site Development II 3
+ CAD287 Advanced Revit Techniques 3
+ CAD292 Current Developments in CAD Technology (1) 1-3
(CAD292 may be repeated up to 3 times on different topics)

CAD+++++ Any other CAD Computer-Aided Drafting course(s) 1-3

+ CET211 Strength of Materials 3
DFT126 Building Trades Blueprint Reading 3


## CAD Fundamentals

Major Code: 5409
Total Credits: 16

Academic Department: Technology and Consumer Sciences Program of Study: Computer Assisted Design and Drafting Field of Interest: Applied Technology

Description: The Certificate of Completion (CCL) in CAD Fundamentals program is designed to provide students with the Computer-Aided design (CAD) skills and competence in
two-dimensional (2D) and three-dimensional (3D) documentation and modeling typical of entry level CAD operators. Students may apply these courses toward the Associate in Applied Science (AAS) degree in Architectural and Civil CAD Technology.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 16

CAD100 Fundamentals of 2D AutoCAD 3

+ CAD101 Elements of CAD Graphics (AutoCAD) 3
+ CAD145 Design Principles for Industry 3
+ CAD201 Three-Dimensional (3D) Modeling and Advanced CAD
Techniques 3
+ CAD105 Fundamentals of Revit Architecture (3) OR
+ CAD106 Fundamentals of Civil 3D (3) 3
+ CAD292 Current Developments in CAD Technology 1


## Certified Bookkeeping

Major Code: 5977N
Total Credits: 9

Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Certified Bookkeeping program helps to prepare students for a Certified Bookkeeper Examination. This program is designed to prepare students to work for CPA firms, tax preparation firms, corporate accounting departments, and small businesses or offer freelance bookkeeping services. The Certificate of Completion (CCL) in Accounting and the Associate in Applied Science (AAS) in Accounting are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

## Required Courses

Credits: 9

ACC105 Payroll, Sales and Property Taxes (3) OR

+ ACC222 Payroll Accounting (3) 3

ACC111 Accounting Principles I 3

+ ACC260 Certified Bookkeeper (CB) Preparation 3


## Child and Family Organizations

Management and Administration
Major Code: 5401
Total Credits: 16
Academic Department: Technology and Consumer Sciences Program of Study: Family Studies Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Child and Family Organizations Management and Administration is designed to prepare individuals to enter the family life education, human development, early childhood settings, or child and family organizations field at the paraprofessional level. Students at a paraprofessional level may seek employment opportunities within management and administration of programs such as: early childhood settings, adoption and foster care, adult day care centers, crisis intervention programs, group and halfway houses, hospice care, senior citizen centers, social service agencies (both private and State/local government), facilities for the disabled and developmentally challenged individuals, community mental health clinics, psychiatric facilities, shelters and other child and family, community-based organizations.

Program Notes: Students must earn a grade of C or better in all courses within the program.

For some occupations within this field, students may be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination. Please consult with your faculty mentor to discuss these and other occupational requirements.

## Required Courses

Credits: 16
CFS206 Child and Family Organizations: Management and Administration 3
CFS207 Organization and Community Leadership in Child and Family Organizations 3
CFS208 Child and Family Organizations: Fiscal Management and Grant Writing 3
CFS209 Child and Family Organizations: Project Management 3

+ FCS250 Portfolio Development and Professional Writing 3
+ FCS260 Family and Consumer Science Internship 1


## Cisco Certified Network Professional: Enterprise Advanced Routing and Services

Major Code: 5187N
Total Credits: 8

Academic Department: Technology and Consumer Sciences Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Advanced Routing and Services builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes concepts of implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Admission Criteria: This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a Cor better OR have a Cisco

Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.


## Required Courses

Credits: 8

+ CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR
+ CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4) AND
+ CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8


## Cisco Certified Network Professional:

 Enterprise CoreMajor Code: 5189N
Total Credits: 8
Academic Department: Technology and Consumer Sciences Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Core builds the knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes the fundamental concepts of virtualization, network assurance, security, and automation, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise, Cisco Certified Network Professional: Enterprise Core and Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Admission Criteria: This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.


## Required Courses

Credits: 8

+ CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR
+ CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND
+ CNT240AB Cisco Certified Network Professional: Enterprise Core II (4) 8


## Cisco Network Administration: CCNA

Major Code: 5969N
Total Credits: 12-15

Academic Department: Technology and Consumer Sciences Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Cisco Network Administration: CCNA provides training for those interested in working with network and Internet hardware. Knowledge and skills are developed to install, configure, and
maintain Cisco routers and switches; configure advanced routing protocols, and Local Area Networks (LANs); troubleshoot hardware and software configurations; perform administrative tasks in a network. Taught by Cisco Certified professionals using the Cisco Networking Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) examination. Students who complete this program may seek employment in a variety of environments. Additional Certificates of Completion (CCLs) in Cisco Network Administration and Security and Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 12-15

CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director (0) 0-3

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4


## Cisco Network Administration: CCNP

Major Code: 5037
Total Credits: 28-31

Academic Department: Technology and Consumer Sciences Program of Study: Networking and Security
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cisco Network Administration: CCNP provides students with advanced knowledge and skills to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot complex hardware and software configurations; and perform administrative tasks in a
network at the professional level. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP) examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Network Administration and Security, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 28-31

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR
+ CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND
+ CNT240AB Cisco Certified Network Professional: Enterprise Core II (4) 8
+ CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR
+ CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4) AND
+ CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

Cisco Network Administration and Security
Major Code: 5036
Total Credits: 16-19
Academic Department: Technology and Consumer Sciences Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cisco Network Administration and Security provides training for those interested in working with Cisco network and Internet hardware with a particular emphasis on securing networks from threats and vulnerabilities. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure routing protocols, and Local Area Networks (LANs); troubleshoot problems with various hardware and software configurations; perform administrative tasks in a network. Specific skills in maintaining integrity, accountability, and confidentiality of data are also developed. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Security examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Certified Network Professional (CCNP), as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 16-19
CIS105 Survey of Computer Information Systems (3) OR
Permission of the Program Director (0) 0-3
CNT140AB Introduction to Networks 4

+ CNT150AB Switching, Routing, and Wireless Essentials 4
+ CNT160AB Enterprise Networking, Security, and Automation 4
+ CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
+ CNT205 Cisco Certified Network Associate Security (4) 4


## Commercial and Freelance Photography

Major Code: 5784
Total Credits: 35-36

Academic Department: Art and Humanities
Program of Study: Photography
Field of Interest: Visual and Performing Arts
Description: The Certificate of Completion (CCL) in Commercial and Freelance Photography includes the study of both the digital and film aspects of photography. The program is structured to help students develop an understanding of exposure principles, camera operations and functions, digital photographic materials, film-based strategies, studio lighting, and the basics of running a freelance photography business. This certificate is designed to provide knowledge and experience important to those hoping to work as freelance photographers, wedding photographers, commercial photographers, photography editors, photography assistants, or photo lab technicians. An Associate in Applied Science (AAS) in Photography is also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

There will be costs for supplies and equipment in this program.

## Required Courses

Credits: 27

ART100 Introduction to Digital Arts 1
ART112 Two-Dimensional Design 3
ART131 Photography I 3

+ ART132 Photography II 3
+ ART138 Commercial Photography I 3
+ ART140 Portrait Photography (3) OR
+ ART237 Fashion Photography (3) 3
ART142 Introduction to Digital Photography 3
+ ART143 Intermediate Digital Photography 3
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
SBS200 Small Business Operations 2


## Restricted Electives

Credits: 8-9

Students must complete one of the two following specializations:

Specialization 1: Freelance Photography

## Credits: 8

SBS204 Small Business Marketing and Advertising 2

In consultation with an advisor or program coordinator, choose two (2) courses from the following list to best fulfill goals:

```
ARH115 History of Photography 3
ART116 Life Drawing I 3
ART137 Alternative Photographic Processes 3
+ ART139 Commercial Photography II 3
+ ART181 Graphic Design I 3
+ ART234 Color Photography I }
ART255 Art Marketing 3
FMP108 Video Production 3
Specialization 2: Commercial Photography
Credits: 8-9
```

+ ART139 Commercial Photography II 3
+ ART234 Color Photography I 3

In consultation with an advisor or program coordinator, choose one (1) course from the following list to best fulfill goals:

ARH115 History of Photography 3
ART116 Life Drawing I 3
ART137 Alternative Photographic Processes 3

+ ART181 Graphic Design I 3
ART255 Art Marketing 3
FMP108 Video Production 3
SBS204 Small Business Marketing and Advertising 2


## Commercial Real Estate

Major Code: 5229N
Total Credits: 7-8

Academic Department: Business and Information Technology
Program of Study: Real Estate and Real Estate Appraisal Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Commercial Real Estate is designed for additional preparation for the new agent or broker and to provide specialized professional development for the experienced professional agent or broker. The CCL includes a core of classes in the foundations of commercial real estate, ethics, and the required research and computational skills in the field. The program also offers the opportunity to explore specializations within the industry. A CCL in Real Estate: Prelicense (5139N) is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

## Program Prerequisites

Credits: 0

Students should have:
an $A Z$ real estate license OR
completion of MCCCD`s CCL Real Estate: Prelicense (5139N) or its equivalent OR
a real estate license from another state OR
have completed pre licensure coursework from another approved Arizona real estate school

## Required Courses

Credits: 5

REA205 Introduction to Commercial Real Estate 2
REA208 Ethics in Commercial Real Estate 1
REA211 Compliance in Commercial Real Estate 1
REA214 Finances in Commercial Real Estate 1

## Restricted Electives

Credits: 2-3

Students must select two of the following options:
REA220 Multiunit Properties in Commercial Real Estate 1
REA225 Industrial Properties in Commercial Real Estate 1
REA230 Land Properties in Commercial Real Estate 1
REA235 Commercial Real Estate Essential Tools 1

+ REA240 Introduction to Commercial Property Management 2


## Community Health Paramedicine

Major Code: 5017N
Total Credits: 8
Academic Department: Public Safety Sciences
Program of Study: Paramedicine
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Community Health Paramedicine is designed to provide the knowledge, skills and ability to synthesize standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence-based paramedicine in the community setting. This certificate prepares students for a community health paramedic credential.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses required within the program.

Admission Criteria: Current state Paramedic certification.

## Required Courses

Credits: 8

PME291 Community Health Paramedicine 8

## Computer System Configuration and Support

Major Code: 5038N
Total Credits: 6-9
Academic Department: Technology and Consumer Sciences Program of Study: Desktop Support
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Computer System Configuration and Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on hardware installation, maintenance, mobile devices, hardware troubleshooting, proper use of tools, safety procedures, and professionalism. This program helps prepare students for the CompTIA A+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 6-9
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

## Computer System Configuration and Support, Linux <br> Major Code: 5039N <br> Total Credits: 9-12

Academic Department: Business and Information Technology Program of Study: Desktop Support
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Computer System Configuration and Support, Linux program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on Linux. The classes focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on the Linux Operating system including knowledge and skills required to install, configure and troubleshoot a Linux-based workstation. This program helps prepare students for the CompTIA A+ and Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite
skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 9-12
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

## Computer System Configuration and Support, Network

Major Code: 5044N
Total Credits: 9-13

Academic Department: Technology and Consumer Sciences Program of Study: Desktop Support
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Computer System Configuration and Support, Network program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on networking. The courses focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on elements of a data network, network components, and use of a network. This program helps prepare students for the CompTIA A+ and Network+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 9-13

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4


## Computer System Configuration and Support, Security <br> Major Code: 5040N <br> Total Credits: 9-19

Academic Department: Technology and Consumer Sciences Program of Study: Desktop Support
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Computer System Configuration and Support, Security program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on security. The courses focus on the development of knowledge and skills in computer and security technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on preventing, identifying, and mitigating threats to the security of information systems and utilizing the basic tools for information security. This program helps prepare participants for the CompTIA A+, Security + , and certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 9-19
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director (0) 0-3

Select from one of the following areas of specialization:

## Specialization 1

Credits: 3-6

+ CIS270 Essentials of Network and Information Security (3)
OR
+ ITS110 Information Security Fundamentals (3) AND
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3-6


## Specialization 2

Credits: 9-10
CNT140AB Introduction to Networks (4) OR

+ CIS190 Introduction to Networking (3) 3-4
CIS250 Management of Information Systems 3
+ CIS271DB Information Security Essentials 3


## Corrections

Major Code: 5776N
Total Credits: 15
Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services
Description: The Certificate of Completion (CCL) in Corrections program is designed for students intending to pursue careers in various correctional components of the justice system, including parole, probation, jail, and prisons. Focus is broader
learning about the correction function in the context of overall administration of justice system.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

AJS101 Introduction to Criminal Justice 3
AJS123 Ethics and the Administration of Justice (3) OR
AJS255 The Criminal Justice System Handling of the Mentally III (3) 3

AJS205 Effective Communication and Report Writing in Criminal Justice (3) OR
AJS275 Criminal Investigation I (3) 3

AJS212 Juvenile Justice Procedures 3
AJS240 The Correction Function 3

## Crime Scene Investigation

Major Code: 5964
Total Credits: 16-18
Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services
Description: The Certificate of Completion (CCL) in Crime Scene Investigation is designed to develop knowledge and skills required to investigate and reconstruct crime scenes using scientific evidence and logical analysis. The program provides instruction in criminal investigation procedures, collection and preservation of physical and biological evidence, death investigation techniques, crime scene reconstruction methodology and presentation of testimony in court.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 16-18

AJS213 Evidence Technology/Fingerprints (3) OR
AJS243 Crime Scene Reconstruction (3) 3
AJS215 Criminalistics: Physical Evidence (3) OR
AJS219 Crime Scene Technology: Physical Evidence (3) OR
FOR105 Forensic Science: Physical Evidence (4) 3-4
AJS216 Criminalistics: Biological Evidence (3) OR
FOR106 Forensic Science: Biological Evidence (4) 3-4

AJS214 Evidence Technology Photography 3
AJS275 Criminal Investigation I 3
AJS290BN Courtroom Testimony Seminar 1

## Critical Care Paramedicine

Major Code: 5030N
Total Credits: 8

Academic Department: Public Safety Sciences
Program of Study: Paramedicine
Field of Interest: Health Sciences
Description: The Certificate of Completion (CCL) in Critical Care Paramedicine is designed to provide the knowledge, skills and ability to synthesize standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence based paramedicine in the clinical, out-of-hospital, and inter-facility transport settings. This certificate prepares students for a critical care paramedic credential.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses required within the program.

Admission Criteria: Current state Paramedic certification.

## Required Courses

Credits: 8
PME292 Critical Care Paramedicine 8

## Critical Infrastructure

Major Code: 5150
Total Credits: 44

Academic Department: Business and Information Technology Program of Study: TBD
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Critical Infrastructure program provides students with the skills required to secure, protect and identify vulnerabilities in a network with a focus on the cross-domain security concerns between information technology and operational technology systems. This program is designed to prepare students for a variety of industry-recognized information technology (IT) security certification exams. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 44

The following courses are required and included in the CCL in Cybersecurity Fundamentals:

CIS105 Survey of Computer Information Systems 3 CIS111 Ethics in Information Technology 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3
+ CIS271DB Information Security Essentials 3
+ CIS272DB Information Security Principles 3
CNT140AB Introduction to Networks 4
+ ITS240 Ethical Hacking and Network Defense 3
MST150++ Any Microsoft Windows course (3) 3
The following courses are required for CCL in Critical Infrastructure:
+ CIS143 Introduction to Critical Infrastructure Protection 3
+ CIS201 Introduction to Operational Technology 3
+ CIS202 Introduction to Smart Grid Security 3
+ CIS203 Risk Management Framework 3
+ CNT150AB Switching, Routing, and Wireless Essentials 4


## Cyber Engineering

Major Code: 5149
Total Credits: 42-46
Academic Department: Business and Information Technology Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cyber Engineering program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Engineering program also focuses on the skills needed for internationally recognized IT certifications and high
demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses <br> Credits: 42-46

The following courses are required and included in the CCL in Cybersecurity Fundamentals:

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3
CIS105 Survey of Computer Information Systems 3
CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+ CIS156 Python Programming: Level I 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
+ CIS270 Essentials of Network and Information Security (3)
OR
+ CIS271DB Information Security Essentials (3) AND
+ CIS272DB Information Security Principles (3)
OR
+ ITS110 Information Security Fundamentals (3) 3-6
+ ITS240 Ethical Hacking and Network Defense 3
The following courses are required in the CCL in Cyber Engineering:

```
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276++ Any SQL Database course (3) }
+ CIS162++ Any C Programming: Level I course 3
CIS227 Assembler Language 3
+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) }
```

+ CIS250 Management of Information Systems 3
+ CIS262++ Any C Programming: Level II course 3


## Cyber Operations

Major Code: 5165
Total Credits: 41-42
Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Cyber Operations program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Operations program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 41-42
The following courses are required and included in CCL Cybersecurity Fundamentals:

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3
CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3

```
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
```

+ ITS110 Information Security Fundamentals 3
+ ITS240 Ethical Hacking and Network Defense 3
The following courses are required in Cyber Operations:
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
+ CIS238DL Linux System Administration (3) OR
+ CIS238RH Red Hat System Administration II (3) 3
+ CIS290AC Computer Information Systems Internship (3) OR
+ CIS298AC Special Projects (3) 3
+ ITS291 Computer Forensics Foundations 4
+ ITS292 Advanced Computer Forensics 4


## Cybersecurity Fundamentals

Major Code: 5154
Total Credits: 24-31

Academic Department: Business and Information Technology Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Cybersecurity Fundamentals is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to provide applied skills necessary for government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 24-31

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Microsoft Windows course (3) 3
CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR
ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS156 Python Programming: Level I 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
+ CIS250 Management of Information Systems (3) 0-3
(Only students taking CIS271DB would be required to take CIS250)
+ CIS270 Essentials of Network and Information Security (3) OR
+ CIS271DB Information Security Essentials (3) AND
+ CIS272DB Information Security Principles (3)
OR
+ ITS110 Information Security Fundamentals (3) 3-6
+ ITS240 Ethical Hacking and Network Defense 3


## Desktop Support

Major Code: 5043
Total Credits: 19-22

Academic Department: Business and Information Technology Program of Study: Desktop Support
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Desktop Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer, network, and security technologies, as well as the interpersonal skills in customer service/technical support needed to be successful within the industry. Depending on course selection, this program helps prepare students for the CompTIA A+, CompTIA Network+, and/or CompTIA Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare
them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 18-19

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3
CIS102DA Customer User Support 3
CIS105 Survey of Computer Information Systems 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
Note: CNT140AB is recommended for students interested in pursuing their Cisco Network Administration Certification.


## Restricted Electives

Credits: 1-3
Students must select 1-3 credits from the following:
BPC171 Recycling Used Computer Technology 1

+ CIS290AA Computer Information Systems Internship 1
+ CIS290AB Computer Information Systems Internship 2
+ CIS290AC Computer Information Systems Internship 3
+ CIS296WB Cooperative Education 2
+ CIS296WC Cooperative Education 3
+ CIS298AA Special Projects 1
+ CIS298AB Special Projects 2
+ CIS298AC Special Projects 3


## Developmental Disabilities Specialist <br> Major Code: 5034 <br> Total Credits: 16-17 <br> Academic Department: Psychology <br> Program of Study: Psychology <br> Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Developmental Disabilities Specialist is designed for students interested in working in various settings serving children or adults with developmental disabilities. The coursework combines theory and application. Academic preparation focuses on the physical and emotional correlates of developmental disability. The students also complete an internship, gaining experience working in a school or agency supporting persons with developmental disability.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 13

EDU222 Introduction to the Exceptional Learner (3) OR

+ PSY243 The Psychology of Developmental Disabilities (3) 3
PSY101 Introduction to Psychology 3
+ PSY240 Developmental Psychology (3) OR
+ PSY266 Psychological Disorders (3) 3
+ PSY241 Understanding and Changing Behavior 3
+ PSY244 Internship in Psychology 1


## Restricted Electives

Credits: 3-4
Complete one (1) of the courses listed below. Course selection must be different from courses counted in the Required
Courses area.
ASL101 American Sign Language I 4
BHS170 Case Management and Clinical Documentation 3
BHS175 Trauma-Informed Care and Recovery Treatment 3
BHS180 Child, Family, and Adult Advocacy 3
BHS275 Infant and Early Childhood Mental Health 3
CFS112 Personal Growth and Family Relations 3
CFS/ECH176 Child Development 3
CFS205 Human Development 3
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3
COM110 Interpersonal Communication 3
FON100 Introductory Nutrition 3

+ PSY240 Developmental Psychology 3
+ PSY266 Psychological Disorders 3
SPA115 Beginning Spanish Conversation 13
SWU171 Introduction to Social Work 3


## Documentary Film Production

Major Code: 5059
Total Credits: 31-34

Academic Department: Art and Humanities
Program of Study: Film
Field of Interest: Visual and Performing Arts

Description: The Certificate of Completion (CCL) in Documentary Film Production introduces the fundamentals of nonfiction filmmaking in a small, supportive setting with industry professionals as mentors. Includes technical aspects of documentary filmmaking (producing, camera, and audio) and exposure to the history and theory behind the art. Students will develop, shoot, and edit an original short documentary film, as well as collaborate on various non-fiction productions, which can include work for clients, non-profits, and new media. An Associate in Applied Science (AAS) in Film and Media Production is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 31-34

ART142 Introduction to Digital Photography 3
FMP125 Podcasting 3

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) OR
Equivalent coursework and/or experience approved by
Program Director (0) 0-3
FMP108 Video Production 3
FMP111AA Scripting for the Media 3
+ FMP114 Audio Production 3
FMP115 Introduction to Editing for Media 3
+ FMP204 Advanced Video Production 3
+ FMP/FMT270 Documentaries for Social Change 4
FMP170 Introduction to Documentary Filmmaking (3) OR
+ HUM212 Documentary Film (3) 3
In consultation with Advisor or Program Director, choose one (1) course from the following:
+ FMP/FMT117 Introduction to Cinematography 3 FMP208 Production Company Management 3 FMP260 Film and Media Producing and Financing 3 + FMP/FMT294AC Special Topics in Motion Picture, Television, Documentary, and New Media Production 3


## Driver Operator

Major Code: 5418N

## Total Credits: 8

Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services
Description: The Certificate of Completion (CCL) in Driver Operator program is designed for students who need (1) advanced training as professional firefighters, (2) preparation courses for career advancement opportunities in fire services, and/or (3) more comprehensive information about the role and function of an emergency vehicle driver/operator.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: Acceptance into the program and permission of Program Director is required.

## Required Courses

Credits: 8

FSC111 Emergency Vehicle Driver Operator 2
FSC117 Fire Apparatus 3
FSC118 Fire Hydraulics 3

## Early Childhood Education <br> Major Code: 5056 <br> Total Credits: 36

Academic Department: Technology and Consumer Sciences Program of Study: Early Childhood Education Field of Interest: Education

Description: The Certificate of Completion (CCL) in Early Childhood Education is designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. An Associate in Applied Science (AAS) in Early Childhood Education is also available and includes additional early childhood electives and general education classes to broaden the student's base of knowledge.

Program Notes: Students must earn a grade of C or better in all courses in the program.

For some employment and field experiences (including internship courses), students will be required to have a current

Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 29-34
CFS101AH Art Activities for the Young Child (1) AND
ECH281 Movement/Music for the Young Child (1) OR
ECH128 Early Learning: Play and the Arts (3) OR

+ EED210 Creative and Cognitive Play (3) 2-3
CFS123 Health and Nutrition In Early Childhood Settings (1) AND
CFS125 Safety in Early Childhood Settings (1) AND
ECH280 Food Experiences With Young Children (1) OR
EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3
CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3
+ CFS/ECH269 Child Care Seminar (1) AND
CFS/ECH287 Professional Development in Early Childhood
Education (1) OR
+ EED255 Portfolio Development and Writing for the Profession (3) 2-3

CFS/ECH271 Arranging the Environment (1) AND CFS282 Mainstreaming The Young Child with A Disability (1) AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3
CFS/ECH273 Math for the Young Child (1) AND
CFS/ECH275 Literacy Development and the Young Child (1) AND ECH272 Science for the Young Child (1) AND
ECH279 Early Childhood Curriculum Development (1) OR + EED278 Early Learning Curriculum and Instruction - Birth to Age Eight (3) 3-4

+ CFS/ECH284AB Early Childhood Teaching Internship (3) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) AND
+ EED261 Early Childhood Preschool Internship (1) OR CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3

ECH140 Learning Made Visible Through Documentation (1) AND ECH270 Observing Young Children (1) OR

+ EED280 Standards, Observation and Assessment of
Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3
EED200 Foundations of Early Childhood Education 3 EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3
EED225 Language and Literacy in the Context of Culture and Relationships 3


## Restricted Electives

## Credits: 2-7

Students must select 2-7 credits from the following courses to meet a minimum of 36 credits for the certificate. Cannot be shared with Required Courses Area.

CFS+++ Any CFS Child/Family Studies course(s)
ECH+++ Any ECH Early Childhood Education course(s)
EDU+++ Any EDU Education course(s)
EED+++ Any EED Early Education course(s)
FCS+++ Any FCS Family and Consumer Science course(s)
ITD+++ Any ITD Infant/Toddler Development course(s)

## Emergency Management

Major Code: 5304
Total Credits: 18
Academic Department: Public Safety Sciences
Program of Study: Emergency Response Management
Field of Interest: Behavioral Science and Human Services
Description: The Certification of Completion (CCL) in Emergency Management provides the student with knowledge and skills required to conduct a comprehensive emergency management program. The program prepares students to manage emergency operations, hazardous materials incidents, tactics, strategy, and safety of firefighting activities, and customer service in the public sector. The student will be prepared for positions such as Emergency Manager, Emergency Management Planner, Emergency Operations Coordinator, Environmental Compliance Planner, and Emergency Management Specialist, working in state, local, federal, and international governments, business and industry, military installations, and health care facilities.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 18
AJS/FSC139 Emergency Response to Terrorism 3
AJS/FSC146 Disaster Recovery Operations 3
AJS/FSC147 Emergency Preparedness 3
AJS/FSC148 Fundamentals of Emergency Management 3
AJS/FSC149 Hazard Mitigation 3
FSC224 Incident Command Systems 3

## Emergency Medical Technology

Major Code: 5643N
Total Credits: 13
Academic Department: Public Safety Sciences
Program of Study: Emergency Medical Technology
Field of Interest: Health Sciences
Description: The Certificate of Completion (CCL) in Emergency Medical Technology curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in all courses within the program.

EMT104 requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB or program director-approved rotation.

Admission Criteria: At Rio Salado College, this program is offered through an educational partnership. Employment by the partnership organization is required for admission.

## Required Courses

Credits: 13
Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
Current validation in Basic Life Support (BLS) Health Care
Provider/Professional Rescuer (0) AND
Credit By Evaluation (0.5) 0.5

+ EMT104AB Applied Practical Studies for Emergency Medical Technology 0.5
+ EMT104LL Emergency Medical Technology Practicum 2
+ EMT104 Emergency Medical Technology 10


## Emergency Medical Technology

## Comprehensive

Major Code: 5058
Total Credits: 16-17
Academic Department: Public Safety Sciences
Program of Study: Emergency Medical Technology Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Emergency Medical Technology Comprehensive curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. This certificate provides students with the expanded knowledge and skills for prehospital settings. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

Program Notes: Students must earn a grade of C or better in all courses within the program.

EMT104 requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB or program director-approved rotation.

## Required Courses

Credits: 13
Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
Current validation in Basic Life Support (BLS) Health Care
Provider/Professional Rescuer (0) AND
Credit By Evaluation (0.5) 0.5

+ EMT104AB Applied Practical Studies for Emergency Medical Technology 0.5
+ EMT104 Emergency Medical Technology 10
+ EMT104LL Emergency Medical Technology Practicum 2


## Restricted Electives

Credits: 3-4
AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety 3
BIO156 Introductory Biology for Allied Health 4
HCC145 Medical Terminology for Health Care Professionals 3
PME190 Introduction to ECG Rhythm Analysis and
Interpretation for EMS Professionals 3
PME191 Introduction to Pharmacology for EMS Professionals 3
SWU258 Victimology and Crisis Management 3

## Enrolled Agent

Major Code: 5958
Total Credits: 17-18
Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Enrolled Agent program helps to prepare students for the Enrolled Agent Examination. The Internal Revenue Service (IRS) Enrolled Agent credential allows tax practitioners to represent taxpayers before the IRS when it comes to collections, audits, and appeals. Enrolled Agents` expertise in the continually changing field of taxation enables them to effectively represent taxpayers at all administrative levels within the IRS. Students who successfully complete this CCL may also seek employment as tax preparers.

Program Notes: Students must earn a grade of C or better in all courses in the program.

Consultation with an Academic Advisor is recommended for course selection.

The Volunteer Income Tax Assistance (VITA) program internship is only available in the spring semester- Contact a program adviser for more information.

## Required Courses

Credits: 15
ACC111 Accounting Principles I (3) OR
ACC211 Financial Accounting (3) 3
ACC121 Individual Tax Preparation 3

+ ACC221 Tax Accounting 3
+ ACC224 Tax Practice Administration and Business Entity Analysis 3
CIS105 Survey of Computer Information Systems 3


## Restricted Electives

## Credits: 2-3

Students should select 2-3 credits from the list below:
ACC105 Payroll, Sales and Property Taxes 3

+ ACC112 Accounting Principles II 3
ACC115 Computerized Accounting 3
+ ACC222 Payroll Accounting 3
+ ACC230 Uses of Accounting Information 13
+ ACC270AB Accounting Internship 2
+ ACC270AC Accounting Internship 3


## Entrepreneurial Studies Level I

Major Code: 5819N
Total Credits: 10-11
Academic Department: Business and Information Technology Program of Study: Entrepreneurial Studies
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Entrepreneurial Studies Level I program is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up opportunities, and creating a preliminary business plan, as well as securing a healthy financial future. A Certificate of Completion (CCL) in Entrepreneurial Studies Level II is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 10-11
EPS150 Introduction to Entrepreneurship 3
EPS160 New Venture Creation 2
EPS162 Introduction to Social Entrepreneurship (3) OR
EPS195 Business Start-Up and Planning (2) 2-3
GBS/HEC132 Personal and Family Financial Security 3

## Entrepreneurial Studies Level II

Major Code: 5820
Total Credits: 18-19
Academic Department: Business and Information Technology Program of Study: Entrepreneurial Studies

Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Entrepreneurial Studies Level II program is designed to prepare students to acquire additional skills, tools and knowledge necessary for successful venture opportunities. A Certificate of Completion (CCL) in Entrepreneurial Studies Level I is also available and fully embedded in this program.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 18-19

EPS150 Introduction to Entrepreneurship 3 EPS160 New Venture Creation 2

EPS161 New Venture Law and Finance (3) OR
EPS180 Technology Business Planning (3) 3
EPS162 Introduction to Social Entrepreneurship (3) OR
EPS195 Business Start-Up and Planning (2) 2-3

EPS165 New Venture Feasibility Analysis 2
GBS/HEC132 Personal and Family Financial Security 3
MGT253 Owning and Operating a Small Business 3

## Fingerprint Identification and Photography

Major Code: 5010N
Total Credits: 10

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services
Description: The Certificate of Completion (CCL) in Fingerprint Identification and Photography is designed to prepare students for entry level positions in the field of fingerprint classification and identification. It is one pathway to the Associate in Applied Science (AAS) in Forensic Science.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 10
AJS101 Introduction to Criminal Justice 3 AJS213 Evidence Technology/Fingerprints 3
AJS214 Evidence Technology/Photography 3
AJS290BN Courtroom Testimony Seminar 1

## Fire Service Management

Major Code: 5420
Total Credits: 21
Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services
Description: The Certificate of Completion (CCL) in Fire Service Management can be used by professional firefighters for promotional opportunities within the Fire Services. The program provides courses for experienced professional firefighters who desire to learn advanced fireground tactics and strategy, building construction, practical incident command, supervisory training of personnel, public administration, basic finance, and human resource management. An Associate in Applied Science (AAS) in Fire Service Management is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Admission Criteria: Current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director.

## Required Courses

Credits: 21
FSC119 Introduction Fire Service Ethics 3

+ FSC167 Fire Captain Academy 6
FSC202 Supervisory Training for Firefighters 3
+ FSC204 Firefighting Tactics and Strategy 3
+ FSC208 Firefighter Safety and Building Construction 3
+ FSC214 Human Resources Management in Fire Service 3


## Firefighter Operations

Major Code: 5557
Total Credits: 16.5-33
Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services
Description: The Certificate of Completion (CCL) in Firefighter Operations provides the opportunity for individuals seeking careers in the fire service to acquire minimum standard firefighting skills and prepare for state and/or national certifications, including the Firefighter I and II Certification. An Associate in Applied Science (AAS) in Fire Science is also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Admission Criteria: Formal application and admission to the program is required.

```
Required Courses
Credits: 16.5-33
EMT101 Basic Life Support/Cardiopulmonary Resuscitation
(CPR) for Health Care Providers (0.5)
OR
Current validation in Basic Life Support (BLS) Health Care
Provider/Professional Rescuer (0) AND
Credit By Evaluation (0.5) 0.5
+ EMT104 Emergency Medical Technology (10) AND
+ EMT104AB Applied Practical Studies for Emergency Medical
Technology (0.5) AND
+ EMT104LL Emergency Medical Technology Practicum (2)
OR
Arizona State EMT Certification (0) OR
Arizona State Paramedic Certification (0) OR
Permission of Program Director (0) 0-12.5
```

+ FSC102 Fire Department Operations 11
FSC105 Hazardous Materials/First Responder (3) OR
Permission of Program Director (0) 0-3
FSC130 Fitness for Firefighters/CPAT (1) OR
Verification of CPAT completion (0) 0-1
+ FSC134 Fitness and Conditioning for Firefighters 3
+ FSC174 Functions of Command 2


## Foundations of Behavioral Sciences

Major Code: 5522
Total Credits: 18

## Academic Department: Counseling

Program of Study: Behavioral Health Sciences
Field of Interest: Behavioral Sciences and Human Services
Description: The Certificate of Completion (CCL) in Foundations of Behavioral Sciences is designed to provide students with a foundational study of human behavior and prepare them to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, comorbid medical conditions, and challenging behaviors. The program includes courses designed to provide students with the skills necessary to deliver essential behavioral health and social services. The core focus of the program is practical training and service learning experiences. This program prepares students for industry certification and is embedded in the CCL in Advanced Behavioral Sciences, the Associate in Applied Science (AAS) in Behavioral Sciences, and the Bachelors of Science (BS) in Behavioral Sciences available at MCCCD.

Program Notes: Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 18
BHS150 Introduction to Behavioral Health and Social Services 3
BHS155 Professional Resiliency and Well-Being 3
BHS160 Ethical, Legal and Professional Issues in Counseling Services 3
BHS165 Applied Therapeutic Communication Skills 3 BHS170 Case Management and Clinical Documentation 3 BHS180 Child, Family, and Adult Advocacy 3

## Foundations of Early Childhood Education

Major Code: 5054
Total Credits: 18-19
Academic Department: Technology and Consumer Sciences
Program of Study: Early Childhood Education
Field of Interest: Education

Description: The Certificate of Completion (CCL) in Foundations of Early Childhood Education is designed to prepare students with foundational knowledge regarding the growth and development of the young child. Topics include cognitive and physical development of the young child, language acquisition, curriculum development, health and safety guidelines, business procedures, and family/community relationship building. This CCL is embedded (can be used to fulfill part of the requirements) in a second available CCL, Early Childhood Education. Both CCLs are embedded (can be used to fulfill requirements) in the Associate in Applied Science (AAS) in Early Childhood Education.

Program Notes: Students must earn a grade of C or better in all courses in the program.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 18-19

CFS101AH Art Activities for the Young Child (1) AND ECH281 Movement/Music for the Young Child (1) OR ECH128 Early Learning: Play and the Arts (3) OR + EED210 Creative and Cognitive Play (3) 2-3

CFS123 Health and Nutrition In Early Childhood Settings (1) AND CFS125 Safety in Early Childhood Settings (1) AND ECH280 Food Experiences with Young Children (1) OR EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3

CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3
CFS/ECH271 Arranging the Environment (1) AND
CFS282 Mainstreaming The Young Child with A Disability (1)
AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3

+ CFS/ECH284AA Early Childhood Teaching Internship (1) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) OR
+ EED261 Early Childhood Preschool Internship (1) 1
EED200 Foundations of Early Childhood Education 3 EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3


## General Business

Major Code: 5683
Total Credits: 21

Academic Department: Business and Information Technology Program of Study: Business
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 12
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3

## Restricted Electives

Credits: 9

Students should select nine (9) credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++ Any EPS Entrepreneurial Studies course(s) 1-3
GBS+++ Any GBS General Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
IBS+++ Any IBS International Business course(s)
REA+++ Any REA Real Estate course(s)
SBS+++ Any SBS Small Business Management course(s)
TQM+++ Any TQM Total Quality Management course(s)

## Health and Wellness Coaching

Major Code: 5245N
Total Credits: 4-7
Academic Department: Fitness and Wellness
Program of Study: Exercise Science
Field of Interest: Health Sciences
Description: The Certificate of Completion (CCL) in Health and Wellness Coaching is designed to prepare students for employment as a health and wellness coach. Health and wellness coaches facilitate client-driven goal-setting, selfdiscovery, active learning, and accountability using behavior change theories. The program is designed to equip students to apply communication and motivational strategies to improve overall health and well-being.

This certificate is designed to prepare students who have completed or are in pursuit of an associate degree for the National Board for Health and Wellness Coaching Certification Exam.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in each course in the program.

Must have an associate degree to take the National Board for Health and Wellness Coaching Certification Exam.

Admission Criteria: Enrollment in an associate degree or permission of Program Director.

## Required Courses

Credits: 4-7

HES100 Healthful Living (3) OR
Equivalent coursework and/or experience approved by
Program Director 0-3
HWC101 Health and Wellness Coaching 3
HWC290 Health and Wellness Coaching Internship 1

## Homeland Security

Major Code: 5322N
Total Credits: 15

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Homeland Security program is designed to provide students with the knowledge and skills needed to conduct a homeland security evaluation and to assess, investigate and respond to terrorism incidents. It also provides criminal justice practitioners with an opportunity for academic growth and the development of specialized skills in homeland security.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 15

AJS/FSC139 Emergency Response to Terrorism 3
AJS/FSC147 Emergency Preparedness 3
AJS/FSC148 Fundamentals of Emergency Management 3
AJS/FSC149 Hazard Mitigation 3
AJS195 International and Domestic Terrorism 3

## Human Resources Management

Major Code: 5580
Total Credits: 24
Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Human Resources Management program is designed to provide skills necessary for careers in human resources management. The program is designed to provide students with a series of courses with an emphasis in management and is designed to prepare students for an entry-level position in human resources. Graduates may be employed in employment (recruiting, interviewing, and hiring), benefits administration, compensation, and employee relations.

Program Notes: Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 24

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3
GBS131 Business Calculations (3) OR

+ MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of higher level Mathematics course (3) 3

GBS120 Workplace Communication Skills 3
MGT229 Management and Leadership I 3
MGT251 Human Relations in Business 3
MGT276 Human Resources Management 3

+ MGT286 Human Resource Employment Management 3


## Infant and Toddler Development

Major Code: 5277N
Total Credits: 9

Academic Department: Technology and Consumer Sciences
Program of Study: Early Childhood Education
Field of Interest: Education
Description: The Certificate of Completion (CCL) in Infant and Toddler Development program prepares students with foundational knowledge on the development of infant and toddler aged children. Students will learn about child health, physical milestones, cognitive development as well as disabilities and developmental delays specific to this age group. Topics include communication and language acquisition, and adult/child relationship building. Also covered is socialemotional development, societal stresses, and supportive professional roles and responsibilities. An Associate in Applied Science (AAS) in Early Childhood Education is available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 9

ITD200 The Physical Child: Birth to Age Three 3
ITD210 Early Attachments, Relationships, and Families: Birth to Age Three 3
ITD220 Cognition and Communication: Birth to Age Three 3

## Information Security Technology

Major Code: 5347
Total Credits: 28

Academic Department: Business and Information Technology Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Information Security Technology program is designed to provide students with the knowledge and tools to understand how networks, operating systems and programs function, as well as, how to protect them. Emphasis is placed on developing the knowledge and skills to maintain security on mission-critical data and computer systems. The program is designed to meet the training needs of employees in both public and private sectors. The program covers a variety of information security disciplines that include both vendor-neutral and vendor-specific security training. The Information Security Technology program is designed to help prepare students for internationally recognized industry certifications.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 28
BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
CIS105 Survey of Computer Information Systems 3
CIS126DL Linux Operating System 3

+ CIS238++ Any UNIX/Linux Administration course (3) OR
+ CIS239DL Linux Shell Scripting (3) 3
CNT140AB Introduction to Networks 4
+ ITS110 Information Security Fundamentals 3
ITS120 Legal, Ethical and Regulatory Issues 3
+ ITS130 Operating System Security 3
+ MST150++ Any Microsoft Windows Operating System course 3


## iOS App Development

Major Code: 5914N
Total Credits: 9-12
Academic Department: Business and Information Technology Program of Study: Programming and Mobile Applications Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in iOS App Development prepares students for positions in app development for the Apple iPad, iPhone, and Apple Watch series. The program emphasizes knowledge and skills required to design, develop, test, and document structured and objectoriented programs utilizing Swift and Xcode. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of

Completion (CCLs) in Native App Development and Mobile App Development.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9-12
CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director, Department or Division Chair (0) 0-3

+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS265 Advanced iOS Application Development 3


## Law Enforcement

Major Code: 5987N
Total Credits: 15

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Law Enforcement is designed for students who are interested in pursuing a course of study specifically focused on law enforcement. The certificate program specializes in training and education related to the duties of law enforcement. The program is designed for the student with no Arizona police academy experience and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

## Credits: 15

AJS101 Introduction to Criminal Justice 3
AJS123 Ethics and the Administration of Justice 3
AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS230 The Police Function 3
AJS275 Criminal Investigation I 3

## Law Enforcement Investigation

Major Code: 5899N
Total Credits: 6

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Law Enforcement Investigation is designed to prepare the law enforcement officer to become a specialist in the investigation of criminal activity and to successfully assist in prosecution. Courses address case management, legal aspects of interviewing, search and seizure, and courtroom presentations. Students will demonstrate skills related to these areas in a crime scene scenario.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

Admission Criteria: Student must be Law Enforcement personnel or have permission of Program Director.

## Program Prerequisites

None

## Required Courses

Credits: 6

```
+ LET225 Criminal Investigations Certification (6)
OR
+ LET225AA Criminal Investigations Certification I (1) AND
+ LET225AB Criminal Investigations Certification II (1) AND
+ LET225AC Criminal Investigations Certification III (1) AND
+ LET225AD Criminal Investigations Certification IV (1) AND
+ LET225AE Criminal Investigations Certification V (0.5) AND
+ LET225AF Criminal Investigations Certification VI (0.5) AND
+ LET225AG Criminal Investigations Certification VII (1)
OR
+ LET254 Criminal Investigations Detective I (3) AND
+ LET255 Criminal Investigations Detective II (3) }
```


## Law Enforcement Training Academy

Major Code: 5991N
Total Credits: 40
Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Law Enforcement Training Academy is designed for students wishing to pursue a career as a law enforcement officer. The student will develop skills in eight functional areas: Introduction to Law

Enforcement, Law and Legal Matters, Patrol Procedures, Traffic Control, Crime Scene Management, Community and Police Relations, Report Writing, and Police Proficiency Skills.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

AJS coursework for this program is taught by instructors who are certified police officers in the State of Arizona as required by the Arizona Peace Officer Standards and Training (AzPOST) Board standards. Any AJS coursework that has already been completed but was not taught by a certified police officer with a recognized academy, will not satisfy the requirements of the certificate. Additionally, this Certificate of Completion (CCL) can be awarded to peace officers who complete the AzPOST waiver (lateral transfers) or to out-of-state academies engaged in an Educational Partnership (ESP) or an Educational Service Agreement (ESA) through one of the offering colleges.

This CCL is offered as an educational partnership at Rio Salado College.

This CCL is offered as a closed academy program at Chandler Gilbert Community College and Glendale Community College. Students at these colleges are advised to meet with the program director, chair and/or faculty advisor.

Admission Criteria: Must meet AzPOST minimum requirements for a law enforcement officer and meet any physical requirements by the Academy Director.

## Required Courses

Credits: 40

AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS113 Criminal Justice Crime Control Policies and Practices 3
AJS151 Firearms I 1

+ AJS153 Firearms II/Handguns 1
AJS154 Firearms III/Long Weapons 1
AJS162 Domestic Violence 3
AJS201 Rules of Evidence 3
AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS210 Constitutional Law 3
AJS215 Criminalistics: Physical Evidence 3
AJS230 The Police Function 3
AJS260 Procedural Criminal Law 3
AJS270 Community Relations 3
AJS275 Criminal Investigation I 3
AJS290BN Courtroom Testimony Seminar 1


## Leadership in Public Safety Organizations

Major Code: 5211N
Total Credits: 6

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services
Description: The Certificate of Completion (CCL) in Leadership in Public Safety Organizations program builds the industry knowledge and skills for individuals to transition to leadership positions in the field of public safety. This CCL will introduce students to the fundamental concepts and skills of professionalism, organizational culture and management, characteristics of effective teams, conflict resolution, motivation, systems-thinking, problem-solving, and leadership as applicable to public safety organizations. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of front-line leadership positions within the fields of public safety including law enforcement, fire service, and public safety support operations such as communication operators and property and records management.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

Admission Criteria: This is a closed program for Public Safety professionals. Please see the Program Advisor for admission requirements.

## Required Courses

Credits: 6

LET173 Introduction to Leadership in Public Safety 2

+ LET174 Organizational Culture and Leadership 3
+ LET175 Public Safety Leadership Capstone 1


## Legal Studies

Major Code: 5966N
Total Credits: 15
Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services
Description: The Certificate of Completion (CCL) in Legal Studies is designed for students who are interested in pursuing a course of study specifically focused on legal studies. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 15
AJS109 Substantive Criminal Law 3
AJS201 Rules of Evidence 3
AJS123 Ethics and the Administration of Justice (3) OR
AJS205 Effective Communication and Report Writing in Criminal Justice (3) 3

AJS210 Constitutional Law 3
AJS260 Procedural Criminal Law 3

## Linux Associate

Major Code: 5046N
Total Credits: 6-9
Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Linux Associate program is designed to help prepare students for employment or to improve current professional skills. The program includes Linux operating system basics and management including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. This program helps prepare students for the Linux Professional Institute Certification (LPIC-1) and CompTIA Linux + certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 6-9
CIS105 Survey of Computer Information Systems (3) OR Permission of program director (0) 0-3

CIS126DL Linux Operating System 3

+ CIS238DL Linux System Administration 3


## Linux System Administration

Major Code: 5052N
Total Credits: 15-18

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Linux System Administration program is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux operating system basics, system administration, network administration and network security. The courses in the program will help develop a student's knowledge and skill level in preparation for employment or to improve current professional skills. Students who complete this program may seek employment in a variety of environments. The program helps prepare students for the Red Hat Certified System Administrator (RHCSA), Red Hat Certified Engineer (RHCE), and CompTIA Linux+ certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite
skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 15-18
CIS105 Survey of Computer Information Systems (3) OR
Permission of program director (0) 0-3
Students should select from one of the following two specializations (Linux or Red Hat Enterprise Linux):

## Specialization: Linux

CIS126DL Linux Operating System 3

+ CIS238DL Linux System Administration 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration 3
+ CIS275DL Linux Capstone 3


## Specialization: Red Hat Enterprise Linux

CIS126RH Red Hat System Administration I 3

+ CIS238RH Red Hat System Administration II 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240RH Red Hat System Administration III 3
+ CIS275DL Linux Capstone 3


## Management

Major Code: 5729
Total Credits: 18
Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Management is designed to provide skills for management careers. Students completing this program are better equipped to apply competencies needed for successful performance in management occupations such as manufacturing, wholesaling, retailing, and service industries. An Associate in Applied Science (AAS) in Management is also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 18

ACC111 Accounting Principles I 3
BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT229 Management and Leadership I 3
MGT251 Human Relations in Business 3

## Marketing

Major Code: 5094
Total Credits: 21

Academic Department: Business and Information Technology Program of Study: Marketing
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Marketing program meets students` needs by providing skills necessary for marketing careers. The program is designed to develop competencies essential for success in Marketing. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations including wholesaling, retailing, professional sales, and entrepreneurship. An Associate in Applied Science (AAS) in Marketing and Sales is available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 18
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS151 Introduction to Business 3
GBS120 Workplace Communication Skills 3
MKT263 Advertising Principles 3
MKT267 Principles of Sales 3
MKT271 Principles of Marketing 3

## Restricted Electives

## Credits: 3

Students should select from the following courses in consultation with Department Advisor.

CIS103 Introduction to Social Media 3
MKT101 Introduction to Public Relations 3
MKT110 Marketing and Social Networking 3
MKT268 Merchandising 3

## Microsoft Desktop Associate

Major Code: 5030N
Total Credits: 3

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Microsoft Desktop Associate program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with how to effectively install and configure Windows operating systems. The course includes basic features of the Windows operating system, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. It is designed to prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Students are encouraged, but not required, to complete CIS105, or CIS190, or CNT140AB prior to beginning this CCL. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 3

MST150WT Installing and Configuring Microsoft Windows 103

## Microsoft Office Professional

Major Code: 5132
Total Credits: 16-22

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Microsoft Office Professional emphasizes training on word processing, spreadsheet, database, and presentation software for business purposes. This certificate provides students with the knowledge
and skills requisite of various business settings. This certificate helps with initial preparation for the Microsoft examinations for certification as a Microsoft Office Specialist (MOS). This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology and Certificate of Complete (CCL) in Microsoft Office Specialist.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 16-22

BPC/OAS111AA Computer Keyboarding I (1) OR
Permission of Program Director (0) 0-1

+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
CIS121AE Windows Operating System: Level I (1) AND
CIS122AE Windows Operating System: Level II (1) OR
MST150++ Microsoft Windows (3) 2-3
CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director (0) 0-3
CIS113DE Microsoft Word: Word Processing 3
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS118DB Desktop Presentation: PowerPoint 3

CIS124AA Project Management Software: Level I (1) AND
CIS124BA Project Management Software: Level II (1) OR
CIS224 Project Management Microsoft Project for Windows (3) 2-3

## Microsoft Office Specialist

Major Code: 5137
Total Credits: 25-31

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Microsoft Office Specialist emphasizes advanced training on word processing, spreadsheet, and database software for business purposes. This certificate builds upon the knowledge and skills gained by the CCL in Microsoft Office Professional for use in various business settings. This certificate helps prepare students for the Microsoft Office Specialist (MOS) certification
examinations. This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 25-31

The following courses are required and included in Microsoft Office Professional CCL:

BPC/OAS111AA Computer Keyboarding I (1) OR
Permission of Program Director (0) 0-1

+ BPC270 A+ Exam Prep: Operating System Configuration and
Support (3) OR
CIS121AE Windows Operating System: Level I (1) AND
CIS122AE Windows Operating System: Level II (1) OR
MST150++ Microsoft Windows (3) 2-3

CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director (0) 0-3

CIS113DE Microsoft Word: Word Processing 3
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS118DB Desktop Presentation: PowerPoint 3
CIS124AA Project Management Software: Level I (1) AND
CIS124BA Project Management Software: Level II (1) OR
CIS224 Project Management Microsoft Project for Windows (3) 2-3

The following courses are required in Microsoft Office Specialist CCL:

CIS213DE Advanced Microsoft Word: Word Processing 3
CIS214DE Advanced Excel Spreadsheet: Level II 3
CIS217AM Advanced Microsoft Access: Database Management 3

## Microsoft System Administration

Major Code: 5031
Total Credits: 18-21
Academic Department: Business and Information Technology Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Microsoft System Administration program is designed to provide students with background knowledge and skills required for learning the
specific tasks and industry recognized standards associated with computer networks and data communications. The program includes a core of Microsoft courses to develop professionals who implement, manage, and troubleshoot existing network and system environments based on current Microsoft operating systems including active directory, messaging services, file and print servers, and firewalls. The courses in the program are also designed to help prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate and Microsoft Certified Solutions Associate (MCSA) - Windows Server 2016 certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 18-21
CIS105 Survey of Computer Information Systems (3) OR
May be waived by permission of the Program Director (0) 0-3
CIS121AH Microsoft PowerShell/Command Line Operations 3
MST150++ Any Microsoft Windows course 3

+ MST155DC Installation, Storage, and Compute with Windows Server 4
+ MST157DC Networking with Windows Server 4
+ MST158DB Installing and Configuring Windows Server 4


## Music Business I

Major Code: 5106
Total Credits: 16
Academic Department: Performing Arts
Program of Study: Music Industry Studies
Field of Interest: Visual and Performing Arts

Description: The Certificate of Completion (CCL) in Music Business I is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines foundational and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. There is a Certificate of Completion (CCL) in Music Business II available as well as an Associate in Applied Science (AAS) in Music Industries: Music Business.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 16
MGT253 Owning and Operating a Small Business 3
MKT110 Marketing and Social Networking (3) OR
MKT271 Principles of Marketing (3) 3

+ MTC180 Computer Literacy for Musicians (3) OR
MUC180 Computer Literacy for the Music Business (3) 3
(Note: Students who have not already completed MTC180 must take MUC180)

MUC109 Music Business: Content Creation and Copyright 3 MUC110 Music Business: Marketing and Monetization 3 MUC293 Self Promotion for Music 1

## Music Business II

Major Code: 5258
Total Credits: 35-37
Academic Department: Performing Arts
Program of Study: Music Industry Studies
Field of Interest: Visual and Performing Arts
Description: The Certificate of Completion (CCL) in Music Business II is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines theoretical and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. An Associate in Applied Science (AAS) in Music Industries: Music Business is available.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 25-26

MGT253 Owning and Operating a Small Business 3
MKT110 Marketing and Social Networking 3
MKT271 Principles of Marketing 3
MUC109 Music Business: Content Creation and Copyright 3
MUC110 Music Business: Marketing and Monetization 3

+ MTC180 Computer Literacy for Musicians (3) OR
MUC180 Computer Literacy for the Music Business (3) 3
(Note: Students who have not already completed MTC180 must take MUC180)
+ MUC209 Music Industry Entrepreneurship 3
MUC293 Self Promotion for Music 1

Music Industry Capstone Experience

+ MUC290AA Music Business Internship (1) OR
+ MUC296WA Cooperative Education (1) OR
MUC298AA Special Projects (1) 1


## Overview of Music Genres

MUC242 Music Genres and Styles (2) OR
MHL155 Survey of American Music (3) 2-3

## Restricted Electives

Credits: 10-11

Students should work with their program advisor to select 1011 credits from courses that align with the academic/career goals and further their development in the areas of Music Business and Marketing, Music Production, and Commercial Performance. Courses from required courses area may not be used.

## Music Business and Marketing

GBS+++ Any GBS General Business course
MKT+++ Any MKT Marketing course
MUC+++ Any MUC Music: Commercial/Business course

## Music Production

MTC+++ Any MTC Music: Theory/Composition course
MUC+++ Any MUC Music: Commercial/Business course

## Commercial Performance

MTC+++ Any MTC Music: Theory/Composition course
MUP+++ Any MUP Music: Performance course

## Non-Sworn Fire Service Professional

Major Code: 5486
Total Credits: 18

Academic Department: Public Safety Sciences
Program of Study: Fire Science
Field of Interest: Behavioral Sciences and Human Services

Description: The Certificate of Completion (CCL) in Non-Sworn Fire Service Professional program is designed for students who need basic preparation courses to pursue a non-sworn career as a fire service professional and/or more comprehensive information about life safety, fire hazards, and prevention. A unique feature of the program is that the instructors are professional fire service personnel including firefighters.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 18

FSC105 Hazardous Materials Awareness and Operations 3
FSC106 Introduction to Fire Protection 3
FSC108 Fundamentals of Fire Prevention 3
FSC113 Introduction to Fire Suppression 3

+ FSC208 Firefighter Safety and Building Construction 3
FSC215 Customer Service in the Public Sector 3


## Nurse Assisting

Major Code: 5963N
Total Credits: 2-4.5

Academic Department: Nursing
Program of Study: Nursing
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Nurse Assisting prepares students for employment as a nurse assistant. The program combines classroom instruction with clinical laboratory practice and long-term care and/or acute care experiences. Students who complete the program are eligible to take a written and practical certification examination if desired to meet employment requirements to be a nurse assistant. Certification/licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

The MCCCD Nurse Assisting program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee: Admission or completion from the MCCCD Nurse Assisting program does not guarantee obtaining a license or certificate to practice as a nurse assistant. Licensure and certification requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college of school requirements for graduation.

Pursuant to A.R.S. §32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions
and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

All nurse assistant applicants for certification will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. All applicants with a positive history are investigated. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602-899-5150).

Health Declaration: It is essential that students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

Health and Safety Requirements for MCCCD Nurse Assisting Program:

1. Students must meet and maintain health and safety requirements throughout the program.
2. Admission to a Maricopa County Community College District health program requires that students be in compliance with the MCCCD Supplemental Background Check Policy. Evidence of a current Arizona Department of Public Safety Level One Fingerprint Clearance Card is required for program application.
3. Negative urine drug screen.

Grade Requirements: Student must obtain a C grade or better in all courses.

## UNIVERSITY TRANSFER STUDENTS

For students planning a university program: Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## THE NURSE ASSISTING PATHWAY

The nurse assisting pathway is designed to prepare students to complete the Nurse Assistant certification/licensure through the Arizona State Board of Nursing to practice in a health care
agency as a nurse assistant. Completion of the Nurse Assistant program of study provides job ready skills as a nurse assistant.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Admission Criteria: Application and acceptance into the program, high school graduate or GED, and meet current health and safety course requirements.

## Required Courses

Credits: 2-4.5

+ NUR158 Nurse Assisting (4.5) OR
Advanced Placement course: + NCE150 Advanced Placement:
Nurse Assisting (2) 2-4.5


## Organizational Leadership

Major Code: 5731
Total Credits: 18
Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Organizational Leadership is designed to prepare students with knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. The CCL in Organizational Leadership is fully embedded in an Associate in Applied Science (AAS) in Organizational Management.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 18
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
GBS110 Human Relations in Business and Industry (3) OR MGT251 Human Relations in Business (3) 3

GBS120 Workplace Communication Skills 3
GBS151 Introduction to Business 3
MGT175 Business Organization and Management (3) OR
TQM240 Project Management in Quality Organizations (3) 3

MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3

## Paramedicine

Major Code: 5990
Total Credits: 45

Academic Department: Public Safety Sciences
Program of Study: Paramedicine
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Paramedicine is a nationally accredited program designed to prepare students to become Paramedics. This program is a formal education in such paramedicine topics as anatomy and physiology, pathophysiology, cardiology, pulmonary, pharmacology, pediatrics, geriatrics hematology, toxicology. Paramedicine builds upon EMT education and includes paramedic scope of practice. Paramedicine is integrated with fire service, law enforcement, ground transport services, flight transport services, search and rescue, hospitals, clinical setting, community paramedicine, and EMS education. There is an Associate in Applied Science (AAS) in Paramedicine available.

Program Notes: Students must earn a grade of B or better in all PME courses required within the program.

Admission Criteria: Students must be current and in good standing with the Arizona Department of Health Services Bureau of Emergency Medical Services-Certified as an Emergency Medical Technician. EMT certification preparatory courses are available at Maricopa County Community Colleges. Contact an academic advisor for details.

Students must complete an application and selection process.

```
Required Courses
Credits: }4
BIO160 Introduction to Human Anatomy and Physiology 4
+ PME201 Advanced Cardiac Life Support (ACLS) Initial Provider in
Paramedicine 1
+ PME202 Pediatric Advanced Life Support (PALS) Initial Provider
in Paramedicine 1
+ PME203 Pediatric Emergencies for Prehospital Professionals
(PEPP) Initial Provider in Paramedicine 1
+ PME204 Neonatal Resuscitation Provider (NRP) in Paramedicine
0 . 5
+ PME205 Advanced Medical Life Support (AMLS) Initial Provider
in Paramedicine 1
+ PME206 International Trauma Life Support (ITLS) Provider/Pre-
Hospital Trauma Life Support (PHTLS) }
+ PME240 Pharmacology in Paramedicine 3
+ PME245 Airway and Ventilatory Management in Paramedicine 3
```

+ PME250 Comprehensive Patient Assessment in Paramedicine 1
+ PME251 Medical Emergencies in Paramedicine I4
+ PME252 Medical Emergencies in Paramedicine II 4
+ PME253 Medical Emergencies in Paramedicine III 4
+ PME254 Technical Operations in Paramedicine 2.5
+ PME260 Trauma Patient Management in Paramedicine 2
+ PME270 Immersive Total Patient Management Experience (ITPME) 2
+ PME280 Preparation for Paramedicine Practicum 1
+ PME281 Paramedicine Clinical Practicum: Comprehensive (2) OR
+ PME281AA Paramedicine Clinical Practicum: Phase I (1) AND
+ PME281AB Paramedicine Clinical Practicum: Phase II (1) 2
+ PME288 Paramedicine Comprehensive Field Internship
Practicum 5
+ PME289 Preparation for Paramedic National Credentialing 2


## Personal Training

Major Code: 5421
Total Credits: 18-18.5

Academic Department: Fitness and Wellness
Program of Study: Exercise Science
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Personal Training is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum provides students with the foundational skills needed to design and implement fitness programs appropriate to clients' goals and aligned with current industry best practices. A CCL in Personal Training: Advanced, an Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance, and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 17-17.5
EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3

FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3

PED101ST Strength Training (1) OR
PED101RT Resistance Training for Improved Sports
Performance (1) 1

## Restricted Electives

Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course 1
FON++++++ Any FON Food and Nutrition course 1
HES++++++ Any HES Health Science course 1
PED+++++ Any PED Physical Education course 1
IFS110 Critical Research for College Success 1

## Personal Training: Advanced

Major Code: 5445
Total Credits: 30-30.5

Academic Department: Fitness and Wellness
Program of Study: Exercise Science
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Personal Training: Advanced is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the CCL in Personal Training coupled with advanced hands-on courses that foster the development of critical thinking and leadership skills important for developing, implementing and leading exercise programs. An Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance and an Associate in Arts (AA), Emphasis in

Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 29-29.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation
(CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3
+ EXS246 Advanced Exercise Testing 2
+ EXS255 Program Design: Muscular Fitness and Performance 3
+ EXS257 Program Design: Cardiorespiratory Fitness 3

Student must complete three (3) credits from the following EXS internship course options:

```
+ EXS270 Exercise Science Internship (3) OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS270AB Exercise Science Internship (2)
OR
+ EXS275 Sport Science Internship (3) OR
+ EXS275AA Sport Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AB Exercise Science Internship (2) AND
+ EXS275AA Sport Science Internship (1) }
FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) }
```

PED101ST Strength Training (1) OR
PED101RT Resistance Training for Improved Sports
Performance (1) 1
PED101BC Boot Camp (1) OR
PED101BS Body Sculpting (1) OR
PED101CY Cycling - Indoor (1) OR
PED101GF Group Fitness/Aerobics (1) OR
PED101KB Kickboxing (1) OR
PED101LD Latin Dancing (1) OR
PED101PC Physical Conditioning (1) OR
PED101PS Pilates (1) OR

PED101SR Stretch and Relaxation (1) OR
PED101TC Tai Chi (1) OR
PED101TX Suspension Training (1) OR
PED101YG Gentle Yoga (1) OR
PED101YH Hatha Yoga (1) OR
PED101YO Yoga (1) OR
PED101YP Power Yoga (1) OR
PED101YR Restorative Yoga (1) OR
PED101ZU Zumba Fitness (1) 1

## Restricted Electives

Credits: 1
Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course (1)
FON+++++ Any FON Food and Nutrition course (1)
HES+++++ Any HES Health Science course (1)
PED+++++ Any PED Physical Education course (1)
IFS110 Critical Research for College Success (1)

## Practical Nursing

Major Code: 5957
Total Credits: 35-45
Academic Department: Nursing
Program of Study: Nursing
Field of Interest: Health Sciences
Description: The Certificate of Completion (CCL) in Practical Nursing Program is available at seven of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Practical Nursing Program graduates are eligible to apply for the national exam for the practical nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Certificate of Completion Practical Nursing Program is approved by the Arizona State Board of Nursing.

Program offerings: This program is offered at the following sites:

Chandler Gilbert Community College
Estrella Mountain Community College
GateWay Community College
Glendale Community College
Mesa Community College
Paradise Valley Community College
Phoenix College
Scottsdale Community College

Waiver of Licensure/Certification Guarantee: Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration: It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

## Health and Safety Requirements for the Nursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.

University Transfer Students: Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## PRACTICAL NURSE EXIT OPTION

Following completion of the practical nurse level program of study, the student is eligible to apply for licensure as a practical nurse. Licensed Practical Nurses (LPN) may be employed in acute, long-term, and community-based health care settings under the direction of a registered nurse. Practical Nurses function within their legal scope of practice and use professional standards of care in illness care and health promotion activities for clients and families across the life span.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404.975.5000); email: info@acennursing.org.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Course Fee Information: Please see class schedule for information regarding course fees.

MaricopaNursing is aligned with Nurse of the Future Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria: High School diploma or GED is required for the Certificate of Completion in Practical Nursing. Applicants
must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the `Declaration of High School Graduation or GED completion`. In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required; all program prerequisites must be completed prior to submission.

A passing score on a nursing program admission test is required to complete an application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Board of Nursing. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

## Program Prerequisites

Credits: 10-20
The credit-hour range is subject to change depending on the student's educational experience.

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) OR
One year of high school biology 0-4
+ BIO201 Human Anatomy and Physiology I 4
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) OR
+ CHM130AA Fundamental Chemistry with Lab (4) OR
One year of high school chemistry 0-4
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher level mathematics course 3-5

Students that are admitted into the MaricopaNursing Program for Fall 2015 and Spring 2016, AND completed MAT120, MAT121, or MAT122 prior to Fall 2015 as an admission requirement, may complete the program without completing MAT140, MAT141, or MAT142 as a graduation requirement, by waiver of the program director.

## Required Courses

Credits: 25

+ BIO202 Human Anatomy and Physiology II 4
+ NUR152 Nursing Theory and Science I 9
+ NUR172 Nursing Theory and Science II 9
+ NUR191 Practical Nursing Transition 3


## Programming and Systems Analysis Level I

Major Code: 5048
Total Credits: 24

Academic Department: Business and Information Technology Program of Study: Programming and Mobile Applications Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Programming and Systems Analysis Level I provides an exploration of different computer language and technical skills. The CCL includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. A Certificate of Completion (CCL) in Programming and Systems Analysis Level II, Certificate of Completion (CCL) in iOS App Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are also available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Consultation with an Academic Advisor is recommended for course selection.

## Required Courses

Credits: 24
CIS105 Survey of Computer Information Systems 3

[^4]CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR

+ MST150++ Any Microsoft Windows course (3) 3

CIS133DA Internet/Web Development Level I 3

+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) 3
+ CIS166++ Any Web Scripting course(s) 3
GBS151 Introduction to Business 3

Select a programming language from below that best aligns with academic and professional goals (1 course for a total of 3 credits) in one of the following areas:

+ CIS156 Python Programming: Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CIS165++ Any Mobile Application Development course (3) 3


## Programming and Systems Analysis Level II Major Code: 5962 <br> Total Credits: 36-38

Academic Department: Business and Information Technology Program of Study: Programming and Mobile Applications Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Programming and Systems Analysis Level II provides an indepth exploration of different computer language and technical skills. This CCL includes, but is not limited to the following: local area networks, team roles, and dynamics. A Certificate of Completion (CCL) in iOS Application Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Consultation with an Academic Advisor is recommended for course selection.

## Required Courses

Credits: 33-34

The following courses are required and included in CCL Programming and Systems Analysis Level I:

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3

```
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
+ MST150++ Any Microsoft Windows course (3) }
CIS133DA Internet/Web Development Level I 3
+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) }
+ CIS156 Python Programming: Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CIS165++ Any Mobile Application Development course (3) }
+ CIS166++ Any Web Scripting course(s) }
GBS151 Introduction to Business 3
The following courses are required for CCL Programming and Systems Level II:
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) OR
+ MST140 Microsoft Networking Essentials (3) 3-4
+ CIS225 Business Systems Analysis and Design (3) OR
+ CIS225AB Object-Oriented Analysis and Design (3) OR
+ CIS250 Management of Information Systems (3) 3
```

Select a programming language from below that best aligns with academic and professional goals (1 course for a total of 3 credits) in one of the following areas:

+ CIS256 Python Programming: Level II (3) OR
+ CIS259 Visual Basic Programming II (3) OR
+ CIS262++ Any C Programming: Level II course (3) OR
+ CIS263AA Java Programming: Level II (3) OR
+ CIS265 Advanced iOS Application Development (3) 3


## Restricted Electives

## Credits: 3-4

Select one of the courses below that best aligns with academic and professional goals for a total of 3-4 credits. Students may not choose courses they have taken from the required courses area.

[^5]+ CIS259 Visual Basic Programming II 3
+ CIS262++ Any C Programming: Level II course 3
+ CIS263AA Java Programming: Level II 3
+ CIS265 Advanced iOS Application Development 3
+ CIS267 Pega System Architect Essentials 4
GBS211 Legal, Ethical and Regulatory Issues of the Internet Studies 3


## Real Estate: Prelicense

Major Code: 5139N
Total Credits: 6.5
Academic Department: Business and Information Technology Program of Study: Real Estate and Real Estate Appraisal Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Real Estate: Prelicense introduces students to the real estate profession. This program is designed to prepare students to meet the requirements to take the Arizona State Real Estate Salesperson's Exam. Emphasis will be placed on license laws, real and personal property, financing, purchasing, selling, renting, legal descriptions, rights and interests in property, ownership, contracts, real estate terminology and economics, investing in real estate, foreclosure, land use, and evaluation.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the program.

## Required Courses

Credits: 6.5

REA179 Real Estate Principles I (3) AND

+ REA180 Real Estate Principles II (3) OR
REA201 Real Estate Principles I and II (6) 6
REA290AH Real Estate Seminar: Contract Writing 0.5


## Red Hat Linux Administrator

Major Code: 5049N
Total Credits: 6-9
Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Red Hat Linux Administrator program is designed to help prepare students for employment or to improve current professional skills. The program includes Red Hat Enterprise Linux system basics and management including sophisticated manipulation of file structures, backup systems, troubleshooting, user
account management, hard disk maintenance and configuration, process monitoring and prioritizing, and system resource control. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 6-9

CIS105 Survey of Computer Information Systems (3) OR Permission of program director (0) 0-3

CIS126RH Red Hat System Administration I 3

+ CIS238RH Red Hat System Administration II 3


## Red Hat Linux Engineer

Major Code: 5050N
Total Credits: 9-12

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Red Hat Linux Engineer program is designed to help prepare students for employment or to improve current professional skills. The program includes in depth Red Hat Enterprise Linux system networking including integrating Linux servers and workstations into a network environment with multi-platform network operating systems with a variety of open-standard and proprietary protocols. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) and Red

Hat Certified Engineer (RHCE) certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 9-12
CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director (0) 0-3

CIS126RH Red Hat System Administration I 3

+ CIS238RH Red Hat System Administration II 3
+ CIS240RH Red Hat System Administration III 3


## Retail Management

Major Code: 5286
Total Credits: 24

Academic Department: Business and Information Technology Program of Study: Business and Organizational Management Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the retail industry, and related fields, for the industry training needs in supervision and management, marketing, financial management, and business planning. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. An Associate in Applied Science (AAS) in Retail Management is also available.

Program Notes: Students must earn a grade of C or better required for all courses within the program.

## Required Courses

Credits: 24

ACC111 Accounting Principles I (3) OR
ACC211 Financial Accounting (3) 3

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

COM100 Introduction to Human Communication 3

MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3

MGT251 Human Relations in Business 3
MGT180 Retail Management 3
MGT276 Human Resources Management 3
MKT271 Principles of Marketing 3

## Securities Industry Essentials

Major Code: 5907
Total Credits: 16
Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Securities Industry Essentials builds the industry knowledge and skills for individuals to prepare for careers in Financial Services. This CCL will introduce students new to or interested in financial services to the fundamental concepts of capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of security industry jobs. This CCL also helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE). A Certificate of Completion (CCL) and Associate in Applied Science (AAS) in Banking and Finance are also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

This Certificate of Completion (CCL) is intended for current or prospective securities industry professionals who are interested in expanding their knowledge in the area of financial securities to enhance their employment opportunities.

## Required Courses

Credits: 16

GBS120 Workplace Communication Skills 3
GBS151 Introduction to Business 3
GBS261 Investments I 3
GBS261LL Securities Industry Essentials (SIE) Exam Prep 1
MGT126 Customer Service Skills and Strategies 3

MKT267 Principles of Sales (3) OR
MKT271 Principles of Marketing (3) 3
(MKT267 is recommend if career goal in the field of finance is sales)

## Security Industry Essentials: Pre-licensure

Major Code: 5931N
Total Credits: 4

Academic Department: Business and Information Technology Program of Study: Accounting, Banking, and Finance Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Security Industry Essentials: Pre-licensure is designed to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for entry-level positions in the security industry.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

## Required Courses

Credits: 4

GBS261 Investments I 3
GBS261LL Securities Industry Essentials (SIE) Exam Prep 1

## Small Business Management Level I <br> Major Code: 5153N

Total Credits: 10-12

Academic Department: Business and Information Technology Program of Study: Entrepreneurial Studies
Field of Interest: Business, Entrepreneurialism and Management

Description: The Certificate of Completion (CCL) in Small Business Management Level I program is designed to meet the needs of individuals who wish to own and/or manage a small business. Prepares students to acquire the skills, tools and
knowledge necessary for successful start-up and operations of a business.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better required for all courses within the program.

## Required Courses

Credits: 10-12

EPS195 Business Start-Up and Planning (2) OR
MGT253 Owning and Operating a Small Business (3) OR

+ SBS216 Planning for a Small Business (2) 2-3

MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2) OR
SBS220 Internet Marketing for Small Business (2) 2-3
SBS200 Small Business Operations 2

SBS202 Small Business Bookkeeping and Tax Preparation (1) AND
SBS203 Financing and Cash Management for a Small Business
(1) OR

SBS230 Financial and Tax Management for Small Business (2) 2
SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

## Small Business Management Level II

Major Code: 5978
Total Credits: 16-18
Academic Department: Business and Information Technology Program of Study: Entrepreneurial Studies
Field of Interest: Business, Entrepreneurialism and
Management

Description: The Certificate of Completion (CCL) in Small Business Management Level II program is designed to focus on aspects critical to a specific individual's small business. Prepares students to acquire additional skills, tools and knowledge necessary for successful start-up and operations of a business. A Certificate of Completion (CCL) in Small Business Management Level I is also available and fully embedded in this program.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 10-12

EPS195 Business Start-Up and Planning (2) OR
MGT253 Owning and Operating a Small Business (3) OR

+ SBS216 Planning for a Small Business (2) 2-3

MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2) OR
SBS220 Internet Marketing for Small Business (2) 2-3
SBS200 Small Business Operations 2

SBS202 Small Business Bookkeeping and Tax Preparation (1)
AND
SBS203 Financing and Cash Management for a Small Business
(1) OR

SBS230 Financial and Tax Management for Small Business (2) 2

SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

## Restricted Electives

Credits: 6

Choose six (6) credits from the restricted electives below. Courses cannot be shared with Required Courses.

EPS150 Introduction to Entrepreneurship 3
EPS195 Business Start-Up and Planning 2
MGT253 Owning and Operating a Small Business 3
MKT271 Principles of Marketing 3
SBS202 Small Business Bookkeeping and Tax Preparation 1
SBS203 Financing and Cash Management For a Small Business 1
SBS204 Small Business Marketing and Advertising 2

+ SBS216 Planning for a Small Business 2
SBS217 Starting/Managing a Home Business 1
SBS220 Internet Marketing for Small Business 2
SBS221 Social Media Marketing for Small Business 2
SBS230 Financial and Tax Management for Small Business 2


## Social Media Marketing

Major Code: 5830
Total Credits: 17-18
Academic Department: Business and Information Technology Program of Study: Marketing
Field of Interest: Business, Entrepreneurialism and
Management

Description: The Certificate of Completion (CCL) in Social Media Marketing is designed to provide useful skills important in a variety of strategic marketing areas, e.g., social media, digital communications, integrated marketing, media relations, and brand management. An Associate in Applied Science (AAS) in Marketing and Sales is also available.

Program Notes: Students must earn a grade of C or better for all courses in the program.

## Required Courses

Credits: 15

CIS103 Introduction to Social Media 3
GBS120 Workplace Communication Skills 3
MKT110 Marketing and Social Networking 3

+ MKT111 Applied Marketing and Social Networking 3
MKT271 Principles of Marketing 3


## Restricted Electives

Credits: 2-3

MKT101 Introduction to Public Relations 3

+ MKT280AB Marketing Internship 2
+ MKT298AB Special Projects 2


## Tactical Emergency Casualty Care

Major Code: 5998N
Total Credits: 2.5

Academic Department: Public Safety Sciences
Program of Study: Paramedicine
Field of Interest: Health Sciences

Description: The Certificate of Completion (CCL) in Tactical Emergency Casualty Care is designed to provide the knowledge, skills and ability to synthesize standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence-based paramedicine in the tactical emergency setting. This certificate prepares students for a tactical emergency casualty care paramedic credential.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better in all courses required within the program.

Admission Criteria: Current state Paramedic certification.

## Required Courses

Credits: 2.5

PME293 Tactical Emergency Casualty Care (TECC) 2.5

## Technical Theatre: Audio Technician

Major Code: 5077N
Total Credits: 11-12

Academic Department: Performing Arts
Program of Study: Theatre
Field of Interest: Visual and Performing Arts

Description: The Certificate of Completion (CCL) in Technical Theatre: Audio Technician is designed to prepare students to apply live sound reinforcement in theatre productions. Classes include instruction in live sound reinforcement, setting up equipment, and sound design for theatrical productions. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 11-12

+ MUC122 Sound Design I 3
MUC197 Live Sound Reinforcement I 3
+ MUC198 Live Sound Reinforcement II 3

THP201AA Theatre Production I (1) OR
THP201AB Theatre Production II (2) OR
THP202 Theatre Production Projects (1) OR
THP202AB Theatre Production I Electrics (1) 1-2

THP251 Safety Practices in Theatre and Film Production 1

## Technical Theatre: Costuming

Major Code: 5090N
Total Credits: 8-9
Academic Department: Performing Arts
Program of Study: Theatre
Field of Interest: Visual and Performing Arts

Description: The Certificate of Completion (CCL) in Technical Theatre: Costuming is designed to provide students with skills in the acquisition, construction, alteration, and maintenance of costumes for theatrical performances. Courses include instruction in costume construction, theory and period styles. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 5-6

THP201AA Theatre Production I (1) OR
THP201AB Theatre Production II (2) OR
THP202AC Theatre Production I Costume Shop (1) 1-2

THP206 Introduction to Costume Construction for Theatre 4

## Restricted Electives

Credits: 3

Students should select courses for a total of three (3) credits based on their career goal. Speak to a Program Director for additional information.

TEC113 Textiles: Dyeing 1
TEC114 Textiles: Block Printing/Silk Screening 1
TEC115 Textiles: Hand Painting 1
TEC225 Pattern Design I 3
THF115 Makeup for Stage and Screen 3

## Technical Theatre: Stage Crew Technician

Major Code: 5099N
Total Credits: 6-7

## Academic Department: Performing Arts

Program of Study: Theatre
Field of Interest: Visual and Performing Arts

Description: The Certificate of Completion (CCL) in Technical Theatre: Stage Crew Technician is designed to provide students with skills to work on theatrical productions as part of the stage crew. The courses include instruction in general theatre knowledge and safety and provide opportunities for hands-on theatrical production experience. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 6-7

THP201AA Theatre Production I (1) OR
THP201AB Theatre Production II (2) OR
THP202AA Theatre Production I Scene Shop (1) OR
THP202AB Theatre Production I Electrics (1) 1-2
THP213 Introduction to Technical Theatre 4
THP251 Safety Practices in Theatre and Film Production 1

## Victimology

Major Code: 5392N
Total Credits: 15

Academic Department: Public Safety Sciences
Program of Study: Administration of Justice
Field of Interest: Behavioral Science and Human Services

Description: The Certificate of Completion (CCL) in Victimology is designed for students who are interested in pursuing a course of study specifically focused on crisis intervention, community services, and victim rights. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 15

AJS101 Introduction to Criminal Justice 3
AJS162 Domestic Violence 3
AJS225 Criminology 3
AJS255 The Criminal Justice System Handling of the Mentally III 3 AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety 3

## Video Game Production: Audio and Sound Major Code: 5130

Total Credits: 30-31

Academic Department: Business and Information Technology Program of Study: Video Game Production Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Video Game Production: Audio and Sound provides students with the introductory skills in audio and sound for video games. Coursework focuses on the music aspects of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is available. Certificates of Completion (CCL) are also available in Video Game Production: Game Art, Video Game Production: Coding and Scripting, and Video Game Production: Narrative.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 30-31

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

ART100 Introduction to Digital Arts 1
CIS105 Survey of Computer Information Systems 3

+ CIS151 Computer Game Development Level I 3
CRW176 Writing Narrative for Video Games 3
MUC122 Sound Design I 3
Students must complete the following courses for a total of 1718 credits that apply to the Video Game Production: Audio and Sound Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

MUC191 Electronic Music (3) OR

+ MUC194 Audio Mixing Techniques (3) 3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC192 Electronic Music II (3) OR
+ MUC196 Studio Recording II (3) 3
MUC195 Studio Music Recording I 3
+ MUC222 Sound Design II 3
+ MUC292 Sound Design III (3) OR
+ MUC298AB Special Projects (2) 2-3

Video Game Production: Coding and Scripting
Major Code: 5129
Total Credits: 33

Academic Department: Business and Information Technology Program of Study: Video Game Production
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in Video Game Production: Coding and Scripting provides students with the introductory skills to code and write script for video games. Coursework focuses on the coding and scripting aspects of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is also available. Certificates of Completion (CCL) are also available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Narrative.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 33
Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

ART100 Introduction to Digital Arts 1
CIS105 Survey of Computer Information Systems 3

+ CIS151 Computer Game Development Level I 3
CRW176 Writing Narrative for Video Games 3
MUC122 Sound Design I 3

Students must complete the following courses for a total of 20 credits that apply to the Video Game Production: Coding and Scripting Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

+ CIS107 The Electronic Game Industry 3 CIS120DC Introduction to Adobe Animate 3 CIS130DB 3D Studio Max: Animation 3
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS156 Python Programming: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS298AB Special Projects 2


## Video Game Production: Game Art <br> Major Code: 5123 <br> Total Credits: 39

Academic Department: Business and Information Technology Program of Study: Video Game Production Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Video Game Production: Game Art provides students with the introductory skills to design Art for video games. Coursework focuses on the artistic aspect of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is available. Certificates of Completion (CCL) are also available in Video Game Production: Audio and Sound, Video Game Production: Coding and Scripting, and Video Game Production: Narrative.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 39

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

ART100 Introduction to Digital Arts 1
CIS105 Survey of Computer Information Systems 3

+ CIS151 Computer Game Development Level I 3 CRW176 Writing Narrative for Video Games 3
MUC122 Sound Design I 3
Students must complete the following courses for a total of 26 credits that apply to the Video Game Production: Game Art Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

```
+ ADA/ART/MMT184 Digital Animation I 3
ART116 Life Drawing 3
ART/COM/STO150 Digital Storytelling 3
```

+ ART/MMT185 3D Modeling for Animation I (3) OR
+ CIS130DA 3D Studio Max: Modeling (3) 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation (3) OR
+ CIS230DB 3D Studio Max: Lighting and Rendering (3) 3
+ ART/MMT285 3D Modeling and Animation II (3) OR
+ CIS130DB 3D Studio Max: Animation (3) 3
+ ART287 3D Character Animation 3
+ ART298AB Special Projects 2


## Video Game Production: Game Narrative

Major Code: 5125
Total Credits: 27

Academic Department: Business and Information Technology Program of Study: Video Game Production
Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Video Game Production: Game Narrative provides students with the introductory skills to write narrative for video games. Coursework focuses on the narrative aspect of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is also available. Certificates of Completion (CCL) are available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Coding and Scripting.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 27
Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

ART100 Introduction to Digital Arts 1
CIS105 Survey of Computer Information Systems 3

+ CIS151 Computer Game Development Level I 3
CRW176 Writing Narrative for Video Games 3
MUC122 Sound Design I 3

Students must complete the following courses for a total of 14 credits that apply to the Video Game Production: Game Narrative Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

CRW160 Introduction to Writing Poetry 3 CRW170 Introduction to Writing Fiction 3 CRW190 Introduction to Screenwriting 3

+ CRW270 Intermediate Fiction Writing 3
+ CRW298AB Special Projects 2


## VMware Foundations

Major Code: 5035N
Total Credits: 3

Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in VMware Foundations program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It is designed to prepare students for the VMware Foundations (VCA) certification exam. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Admission Criteria: This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director:

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND
+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Windows Operation Course (3) 3-6
CIS105 Survey of Computer Information Systems 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (3) 3
Students also have the option to complete the full CCL in this program, VMware Network Administrator (major code 5032), that includes the prerequisites and required courses.


## Required Courses

Credits: 3

+ CIS197 VMware ESXI Server Enterprise 3


## VMware Network Administrator

Major Code: 5032
Total Credits: 24-28
Academic Department: Business and Information Technology Program of Study: Networking and Security
Field of Interest: Computer and Information Technology
Description: The Certificate of Completion (CCL) in VMware Network Administrator program is designed to help students
prepare for VMware industry certifications and work in a variety of information technology environments including software-defined data centers. Courses will build the knowledge and skills for students to design, install, configure, troubleshoot, and manage virtual environments and help prepare students for the CompTIA A+, CompTIA Linux +, CompTIA Network+; VMware VCA, VCP, and/or VCAP-NV Deploy certification exams. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

## Required Courses

Credits: 24-28

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director (0) 0-3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
CIS189 Virtualization and IT Solutions for Digital Businesses 3

+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) 3-4
+ CIS197 VMware ESXI Server Enterprise 3
+ CIS198 VMware vSphere: Optimize and Scale 3
+ CIS200 VMware NSX: Install, Configure, Manage 3


## VMware Systems Administrator

Major Code: 5033N
Total Credits: 6

Academic Department: Business and Information Technology Program of Study: Networking and Security Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in VMware Systems Administrator program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It includes advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure and is designed to prepare students for the VMware VCA and VCP certification exams. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Admission Criteria: This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director:

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND
+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR
MST150++ Any Windows Operation Course (3) 3-6
CIS105 Survey of Computer Information Systems 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (3) 3
Students also have the option to complete the full CCL in this program, VMware Network Administrator (major code 5032), that includes the prerequisites and required courses.


## Required Courses

Credits: 6

+ CIS197 VMware ESXI Server Enterprise 3
+ CIS198 VMware vSphere: Optimize and Scale 3


## Web App Development

Major Code: 5835N
Total Credits: 9-12
Academic Department: Business and Information Technology Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Web App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on web apps. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCL) in Mobile App Development and Cross-Platform App Development.

Program Notes: This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students should consult with a Department Advisor in arranging their schedules.

## Required Courses

Credits: 9-12
CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director, Department or Division Chair (0) 0-3

```
+ CIS133DA Internet/Web Development Level I 3
+ CIS166AA Introduction to JavaScript 3
+ CIS233DA Internet/Web Development Level II 3
```

+ CIS166AA Introduction to JavaScript 3
+ CIS233DA Internet/Web Development Level II 3


## Web Design

Major Code: 5986
Total Credits: 38-43

Academic Department: Business and Information Technology Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Web Design provides students with comprehensive and focused studies in web design, including advanced image manipulation, vector graphics, page layout, video editing and design principles. An Associate in Applied Science (AAS) in Web Design/Development and CCLs in Web Foundations and Web Development are also available.

Program Notes: Students must earn a grade of C or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 36-37

The following courses are required for the CCL in Web Foundations:

CIS105 Survey of Computer Information Systems 3 CIS120DF Introduction to Adobe Photoshop 3 CIS133DA Internet/Web Development Level I 3 CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3

The following courses are required for the CCL in Web Design:

```
+ AVC183 Digital Graphic Arts I (3)
OR
AVC100 Introduction to Digital Arts (1) AND
+ AVC181 Graphic Design I (3)
OR
ART112 Two-Dimensional Design (3) 3-4
CIS120DA Introduction to Adobe Premiere (3) OR
CIS120DK Introduction to Digital Video Editing (3) }
CIS120DB Introduction to Adobe Illustrator 3
CIS120DC Introduction to Adobe Animate (3) OR
+ CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging
(3)}
```

CIS138DA Desktop Design and Publishing Using Adobe InDesign 3

## Restricted Electives

Credits: 2-6

Select 2-6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business, and/or Multimedia.

## Web Development

Major Code: 5988
Total Credits: 39

Academic Department: Business and Information Technology Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Web Development prepares students to create and administer interactive and professional websites. The program provides students with knowledge and skills in developing dynamic websites, client and server side programs, database structures, and object-oriented design. A Certificate of Completion (CCL) in Web Design and an Associate in Applied Science (AAS) in Web Design/Development are also available.

Program Notes: Students must earn a grade of C or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 36

The following courses are required and included in the CCL in Web Foundations:

CIS105 Survey of Computer Information Systems 3
CIS120DF Introduction to Adobe Photoshop 3
CIS133DA Internet/Web Development Level I 3
CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3

The following courses are required for the CCL in Web Development:

[^6]CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3

+ CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) 3

Programming Language: Select two (2) courses for a total of six (6) credits.

```
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS156 Python Programming: Level I 3
+ CIS159 Visual Basic Programming I }
+ CIS162++ Any C Programming course 3
+ CIS163AA Java Programming: Level I }
+ CIS165++ Any Mobile Application Development course 3
+ CIS256 Python Programming: Level II 3
+ CIS262AD C# Level II 3
+ CIS263AA Java Programming: Level II 3
+ CIS265++ Any Advanced Application Development course 3
```


## Restricted Electives

Credits: 3

Students should select any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems. 3

## Web Foundations

Major Code: 5984
Total Credits: 21
Academic Department: Business and Information Technology Program of Study: Web Design and Development Field of Interest: Computer and Information Technology

Description: The Certificate of Completion (CCL) in Web Foundations introduces students to designing and developing web pages. This CCL prepares students for entry level web positions. Certificates of Completion (CCL) in Web Design and Web Development are available. An Associate in Applied Science (AAS) degree in Web Design/Development is also available.

Program Notes: Students must earn a grade of $C$ or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 21

CIS105 Survey of Computer Information Systems 3 CIS120DF Adobe Photoshop Level I: Digital Imaging 3 CIS133DA Internet/Web Development Levell 3
CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3


## Faculty and Administration

## MCCCD Governing Board

Marie Sullivan, President
Susan Bitter Smith, Secretary
Lynn Burnett, Member
Kelli Butler, Member
Donna Davis, Member
Tom Nerini, Ed.D., Member
Jacqueline Smith, J.D., Member
Linda Thor, Ed.D., Member

## MCCCD Administration

## Dr. Steven R. Gonzales, Chancellor

Bettina Celis, Acting Vice Chancellor and Provost of Academic and Student Affairs
Kimberly Brainard Granio, Vice Chancellor of Business Services Darcy Renfro, Vice Chancellor of Community, Government Relations, and Economic Development
Deanna Villanueva-Saucedo, Associate Vice Chancellor of the
Center for Excellence in Inclusive Democracy
Dr. Cathleen Hernandez, Interim Chief of Staff
Dr. Georgetta Kelly, Chief Human Resources Officer
Matthew Reeves, Interim Chief Information Officer
Brian Spicker, Foundation President and Chief Executive Officer Janice Falkenberg, Esq., General Counsel

## GCC Administration

Dr. Tiffany Hernandez, President
Mónica Castañeda, Ed.D., Vice President, Student Affairs
Augustine Erpelding, M.Ed., Vice President, Administrative Services
Lorelei A. Konopka, Ed.D, Interim Vice President, Academic Affairs
Kerry Mitchell, M.S., M.A., Interim Senior Associate Vice President, North Campus
Susan Campbell, Ph.D., Dean of Instruction, Career \& Technical Education
Patricia Curtis, M.B.A., M.Ed., Interim Dean of Enrollment Services
Douglas Deiss, Ph.D., Interim Dean of Instruction, Academic Affairs
Genesis Toole, Ph.D., Dean of Student Life
Carly Zufelt, MFA, Dean of Instruction, Arts, Science \& General Education

## GCC Administration Emeritus

Phillip D. Randolph, Ed.D., President Emeritus
John R. Waltrip, Ph.D., President Emeritus

## GCC Faculty

Abraham, James T., Ph.D., Communication \& World Languages Alexander-Arntson, Roxan, M.A., Communication \& World Languages
Allen, Donna, M.A., Social Sciences
Alpaugh, Mary, Ed.D., English, Reading, Journalism \& Creative Writing
Alvarez, Maria Lucreia, Ph.D., Biology
Ayala, Derek, M.A., Philosophy \& Religious Studies
Baca, Tenisha, M.A. M.Ed., Communication \& World Languages
Baker, Jeffrey, M.F.A., English, Reading, Journalism \& Creative
Writing
Baker, Nicholas, M.S., Biology
Barajas, Aracely, M.C., Counseling
Basham, Judy, M.Ed., Technology \& Consumer Science
Bell, Christina, M.A. M.L.I.S., Library
Bencic, Martin, M.A.Ed., Business \& Information Technology
Berry, Tynisa, M.S.N-FNP, Nursing
Beverly, William, Ph.D., Counseling
Biber, Eric, M.A., English, Reading, Journalism \& Creative Writing
Bird, Caryn, M.A., English, Reading, Journalism \& Creative Writing
Blake Jr., Robert E., Ph.D., Chemistry
Blomberg, Michelle, M.Ed., Art \& Humanities
Boninger, David, Ph.D., Psychology
Borras, Guiomar, Ph.D., Communication \& World Languages
Bright, Jason, M.S., Mathematics \& Computer Science
Brooks, Janet, M.L.S., Business \& Information Technology
Brown, Lisa, M.Ed., Mathematics \& Computer Science and Computer Science
Brown, Paul, M.Ed., Public Safety Sciences
Brysacz, Lynn, Ed.D., Counseling
Burch, Kristina, M.A., Mathematics \& Computer Science
Burchett, Stephanie M., M.F.A., Art \& Humanities
Burns, Justin, M.A., English, Reading, Journalism \& Creative Writing
Calderone, Gary J., Ph.D., Physical Sciences
Cantini, George, M.S., Public Safety Sciences
Carleton, Janet, Ph.D., Philosophy \& Religious Studies
Chagolla, Glenda, B.S., Technology \& Consumer Science
Clark, K. Lyle, A.A.S., Chair, Automotive Technology
Clark, Christina, M.A., Chemistry
Clayden, Steve, Ph.D., Business \& Information Technology
Cleworth, Brandon, Ph.D., Art \& Humanities
Coignet, Matthew, M.Ed. M.S., Mathematics \& Computer Science
Cojanu, Gabriela, Ed.D., Business \& Information Technology Colaiacovo, Stacy, M.S., Mathematics \& Computer Science
Conzelman, Karen A., Ph.D., Chair, Biology

Cook, Jayme, M.A.Ed., English, Reading, Journalism \& Creative Writing
Cooper, Alisa, Ed.D., English, Reading, Journalism \& Creative Writing
Coughlin, John, M.A. M.C., Social Sciences
Covey, Jay, M.A., Automotive Technology
da Costa Mello, S., M.A.T.E.S.L., English, Reading, Journalism \& Creative Writing
Dallas, Bradford, M.Ed. M.S., Mathematics \& Computer Science
Dash, Sagarika, Ph.D., Biology
DeCristofaro, Lawrence, M.B.A., Business \& Information Technology
Deiss, Douglas, Ph.D., Communication \& World Languages
DeLaney, Esmeralda, M.A. M.F.A., Art \& Humanities
Desai, Therese, J.D., Social Sciences
Desai, Jignasa, M.A., English, Reading, Journalism \& Creative Writing
Devenney, Kelly, M.E., Mathematics \& Computer Science
Devereux, Helen, M.Ed., English, Reading, Journalism \& Creative Writing
Dewey, Roxanna, M.Ed., English, Reading, Journalism \& Creative Writing
Diebolt, Lisa A., Ph.D., Chemistry
Dodrill, Laura, M.Ed., Counseling
Dollar, Todd, Ph.D., Psychology
Dominguez, Natalie, M.S., Fitness \& Wellness
Drumtra, Derek, M.S., Fitness \& Wellness
Duggan, Mary Anne, Ph.D., Psychology
Eide, Christina, D.M.A., Performing Arts
Elrobeh, Dorothy D., M.L.S., English, Reading, Journalism \& Creative Writing
Esler, Robert, D.M.A., Performing Arts
Eyres, Beth, M.A., English, Reading, Journalism \& Creative Writing
Farina, Casey, D.M.A., Art \& Humanities
Feld, Kimberly, M.Ed., Chair, Communication \& World Languages
Fernandez, Philip J., Ph.D., Biology
Fitzgerald, Kevin, M.Ed., Mathematics \& Computer Science
Frank, Timothy, Ph.D., Technology \& Consumer Science
Fried, Aaron, Ph.D., Fitness \& Wellness
Gano, Jessica, D.D.S., Biology
Gardner, Stefanie Harger, D.M.A., Performing Arts
Garguilo, Nina, D.M.A., Performing Arts
Gautier, Pamela, M.L.I.S., Library
Gergus, Erik W A., Ph.D., Biology
Gheorghita, Amalia, M.A., English, Reading, Journalism \& Creative Writing
Gibson, John J., M.S., Business \& Information Technology
Gleim, Brian, M.S., Physical Sciences
Gray, Julie, M.A., M.S., English, Reading, Journalism \& Creative Writing
Grayberg, Karen, M.S.N., Nursing
Gregg, George, M.A. M.Ed., Chemistry

Grima, John G., M.S., Mathematics \& Computer Science Gustafson, Jennifer, M.S., Chemistry
Gwinn, Emily, M.A., M.Ed., English, Reading, Journalism \& Creative Writing
Hall, Rachelle, M.P.A., Chair, Business \& Information Technology
Hall, Pamela, Ph.D., Art \& Humanities
Hayashi, Tomomi, M.A., English, Reading, Journalism \& Creative Writing
Haywood, Anna, Ph.D., Mathematics \& Computer Science
Hernandez, Mia, M.A., Counseling
Higgins-Dailey, Jacqui, M.L.I.S., Library
Hopson, Erika, M.S., Fitness \& Wellness
Hornstein, Shana, Ph.D., Psychology
Hulihan, Charles, M.M., Performing Arts
Humbert, William K., M.M., Performing Arts
Hynes, Jeffeory, Ed.D., Public Safety Sciences
Jackson, Michelle, M.A., Communication \& World Languages
Jacobus, Holly, M.A., English, Reading, Journalism \& Creative Writing
Jiménez, Manuela, Ph.D., Psychology
Jones, Christine, M.A., English, Reading, Journalism \& Creative Writing
Joraanstad, Pamela J., Ph.D., Communication \& World Languages
Jordan, Angela, M.Ed, Chair, Technology \& Consumer Science
Kadel, Steve D., M.S., Physical Sciences
Karasek, Brian, M.Ed., Mathematics \& Computer Science
Kehowski, Walter A., Ph.D., Mathematics \& Computer Science
Kimani, Patrick, Ph.D., Mathematics \& Computer Science
Kimball, William, Ph.D., Mathematics \& Computer Science
Kleinman, Brent, J.D., Business \& Information Technology
Kostick, Randy, M.A., Mathematics \& Computer Science
Krout, Karl, Ph.D., Biology
Kruse, Jeffrey J., M.S.E., Mathematics \& Computer Science
Kujawa, Kara, M.Ed., Business \& Information Technology
Kurtz, Nathan, M.S., Mathematics \& Computer Science
Leamon, Larissa, M.A., English, Reading, Journalism \& Creative Writing
Landavazo, Joseph, A.A.S., Automotive Technology Lane, Jennifer, Ph.D., Chair, English, Reading, Journalism \& Creative Writing
Lanz, Aprillya, Ph.D. Mathematics \& Computer Science
Lavigne, Trisha, Psy.D., Psychology
Leamaster, Reid, Ph.D., Chair, Social Sciences
LeBaron, Tina, M.A., Technology \& Consumer Science
Lee, Wei-Jen, M.S., Chemistry
Leedy, Debra, Ph.D., Chair, Chemistry
Lewis, Ladonna, Ph.D., Psychology
Lewis, Lisa A., Ph.D., Chair, Fitness \& Wellness
Lira, Ramon, M.Ed., English, Reading, Journalism \& Creative Writing
Lowenkren, Matthew, B.A. B.S., Business \& Information
Technology

Lucas, Stephanie, M.A., Art \& Humanities Lupu, Peter, M.Phil, Chair, Philosophy Luu, Ui, M.S.E.E., Technology \& Consumer Science Malamuth, Tamara, Ph.D., Psychology Mantle, Mitchell, M.F.A., Art \& Humanities Marley, Kurt, M.Ed., Mathematics \& Computer Science Merrell, Chad C., M.F.A., English, Reading, Journalism \& Creative Writing
McKelvey, Autumn Bolin, M.A., English, Reading, Journalism \& Creative Writing
McKennon, Edward, M.A., Library
Menon, Rashmi M., M.A., English, Reading, Journalism \& Creative Writing
Merrill, Heather H., M.Ed., Social Sciences
Mick, Angela K., D.C., Biology
Miller, Christian, Ph.D., Chair, Mathematics \& Computer Science
Minarek, Peter, Ph.D., Social Sciences
Mitio, Betsy, M.A., Mathematics \& Computer Science
Moore, Lisa S., M.A., English, Reading, Journalism \& Creative Writing
Morrison, Julie Bauer, Ph.D., Chair, Psychology
Moshrefzadeh, Shohreh, M.S., Technology \& Consumer Science
Murphy, Amanda, M.A., English, Reading, Journalism \& Creative Writing
Neibarger, Lea, M.Ed., Mathematics \& Computer Science Nelson, David, M.F.A., English, Reading, Journalism \& Creative Writing
Nelson, Pamela J., M.S., Physical Sciences
Newman, Lynn, M.A., Social Sciences
Nichols, David, Performing Arts
Nicoloff, Ashley, M.S., Mathematics \& Computer Science
Nielson, Christopher D., M.A., English, Reading, Journalism \& Creative Writing
Nottingham, Douglas, D.M.A., Performing Arts
O'Brien, Sean, M.L.I.S., Library
Ocano, Jillane, D.N.P., Nursing
Pack, Miriam, M.A., Mathematics \& Computer Science
Padelford, Sarah, M.A., Counseling
Pampel, Krysten, Ph.D., Mathematics \& Computer Science
Parrish, Kimberly, Ph.D., Biology
Patrick, L. Alexander, Ph.D., Social Sciences
Paul, Grace, D.N.P., Chair, Nursing
Pearcy, Matt, Ph.D., Biology
Perez, Rainier, B.A., Public Safety Sciences
Perrigo, Donna, M.Ed., English, Reading, Journalism \& Creative Writing
Petrenco, Felicia, M.A., Mathematics \& Computer Science
Petry, Michelle, M.L.I.S., Library
Petty, Phillip, M.S., Physical Sciences
Pierre, Lisa, M.S.N., Nursing
Polansky, Todd, B.A., Chair, Public Safety Sciences
Pool, Deborah J., M.S., Nursing

Rabideau, Rebecca, M.F.A., Performing Arts
Radisich, Sasha, Ph.D., Social Sciences
Raffaelle, David P., Ph.D. Chair, Physical Sciences
Reed, Karen, M.A., Library
Regan, Brendan, M.F.A., Chair, Art \& Humanities
Reimer, Janna, M.A., Mathematics \& Computer Science
Resler, Mary, D.N.P., Nursing
Rivas, Sergio, M.S., Mathematics \& Computer Science
Rivera, Frank A., M.S., Mathematics \& Computer Science
Roam, Sharenda, D.Min., Philosophy \& Religious Studies
Roderick, Phillip, M.A., English, Reading, Journalism \& Creative Writing
Romo, Paul J., M.Ed., Chair, Counseling
Ryum Stott, Alisha, M.S.N., Nursing
Saint-Amour, Jeanne, Ph.D., Philosophy \& Religious Studies
Salazar, Robert, B.S., Business \& Information Technology
Saliba, Elizabeth, M.Ed. M.L.I.S., Chair, Library
Salman, Ghaith, Ph.D., Mathematics \& Computer Science
Sanger, Jeffrey, M.F.A., English, Reading, Journalism \& Creative Writing
Sawyer, Stephanie, M.S., Fitness \& Wellness
Schauer, Andrea, B.S., Technology \& Consumer Science
Schwarzwalter, Loren, Ph.D., Communication \& World Languages
Schwendiman, Angela L., Ph.D., Biology
Seitz, David A., M.F.A., Performing Arts
Shaffer, John, Ph.D., Social Sciences
Shineman, Kirt, M.A. M.F.A., Communication \& World Languages
Shipley, Clark, J.D., Business \& Information Technology
Shufford, Kevin, Ph.D., Communication \& World Languages
Sindel, Kelly, M.A., Communication \& World Languages
Slater, Florence, Ph.D., Biology
Smith, Donald S., D.M.A., Chair, Performing Arts
Smith, Aubrei, M.A., Social Sciences
Smith, Kimberly, Ph.D., Chemistry
Smith, Shannon, Ph.D., Technology \& Consumer Science
So, Louise, M.A., Fitness \& Wellness
Sokol-Tinsley, Karina, Ph.D., Psychology
Spencer, Lillian, Ph.D., Social Sciences
Springer, Joseph W., Ph.D., Chemistry
Stalzer, Mark, M.S.N., Nursing
Stephens, Genea, Ed.D., Public Safety Sciences
Stephens, Brian, M.Ed., Mathematics \& Computer Science
Stephens, Jolee, Ph.D., Art \& Humanities
Steward, Jason L., Ph.D., Chemistry
Stewart, William, B.S., Business \& Information Technology
Stewart, Gaylen, M.F.A., Art \& Humanities
Stroher, Scott, C.P.A. M.B.A., Business \& Information
Technology
Strong, Michael, Ph.D., Social Sciences
Stumbaugh, Sean, M.S., Public Safety Sciences
Swensen, Kendra, M.B.A. M.Ed., Business \& Information
Technology

Tharp, Sheri, D.N.P., Nursing
Torgerson, Amy, M.S., Counseling
Townsend, Susan, Ph.D., Nursing
Tumulty, Tevis, M.S., Business \& Information Technology
Tuohy, James, Ph.D., Biology
Updike, Eric, Ph.D., Philosophy \& Religious Studies
Vawter III, Charles, M.B.A., Business \& Information Technology
Walk, Lori, M.Ed., English, Reading, Journalism \& Creative Writing
Walls, Celeste, Ph.D., Communication \& World Languages
Walton, Sara, M.A., M.S., English, Reading, Journalism \& Creative Writing
Wangen, Sherry, M.Ed., Social Sciences
Waskow, Julie A., Ph.D., Philosophy \& Religious Studies
Watkins, Laura, Ph.D., Mathematics \& Computer Science
Watt, Keith, Ed.D., Physical Sciences
Watt, Sara, M.S., Physical Sciences
Weatherly, Gina, M.A., Technology \& Consumer Science
Weber, Matthew, Ph.D., Mathematics \& Computer Science
Wheeler III, Dean, Ph.D., Social Sciences
Wierenga, Dale, M.Arch., Technology \& Consumer Science
Williams, Melissa, D.N.P., Nursing
Witzke, Jackie, M.Ed., English, Reading, Journalism \& Creative Writing
Woodcock, Jennifer, M.B.A. M.S.N., Nursing
Worthy, Lisa, Ph.D., Psychology
Yamak, Didem, Ph.D., Technology \& Consumer Science
Yee, Sharon, Ph.D., Social Sciences
York, Justin, Ph.D., Biology
Zhosan, Dmytro, Ph.D., Social Sciences

## GCC Faculty Emeritus

Adank, Willard A. (1968-1992) Physics/Mathematics Faculty, Department Chair
Antilla, Freddie L. (1983-2004) English Faculty
Arnoldt, Carmela B. (1992-2013) English Faculty, Department Chair
Austin, Mariam J. (1965-1986) Physical Education Faculty, Department Chair
Barstack, Renee (1981-2017) English Faculty
Baxter, Leroy E. (1966-1988) Music/Humanities Faculty, Department Chair
Beene, D. Leon (1976-1999) History Faculty
Beene, Holly McKinzie (1975-2009) Communication Faculty Bietto, Frank (1966-1987) Political Science/History Faculty Bilse, Don (28 years of service) CAD Faculty, Dean of Students Bloss, Dale (1963-1988) Physical Education Faculty, Athletic Director and Department Chair
Boerner, Janice K. (1963-1993) English Faculty, Department Chair
Bowker, Robert (1986-2017) Biology Faculty
Boyle, James H. (25 years of service) Business \& Information Technology Faculty

Braasch, Vernon C. (1963-1985) Physical Education Faculty, Department Chair
Brandt-Williams, Ann (1984-2009) Psychology Faculty, Department Chair
Brazie, Thomas (1967-2000) English Faculty
Brooker, Rodney (1987-2014) Business \& Information
Technology, Accounting Faculty
Callahan, Ruth (1992-2014) English/Reading/Journalism Faculty
Camp, Jane (1986-2009) English Faculty
Campion, Maurice M. (1964-1988) Spanish Faculty
Cary, Richard (1979-2001) Business Faculty
Catalano, Renault (1967-1995) Technology Faculty, Department Chair
Cavin, William C. (1966-1986) Biology Faculty, Department Chair
Celestian, Stanley (1976-2006) Physical Sciences/Astronomy
Faculty
Charvonia, Ronald (1961-1988) Business Faculty
Chord, Paul (1966-1988) English Faculty
Christian, Robert (1990-2006) Communication Faculty
Clayton, Dorothy (1966-1989) Physical Education Faculty
Cooper, Elizabeth H. (1976-2005) Biology Faculty
Csontos, Louis (21 years of service) Chemistry Faculty, Department Chair
Cullinan, Andrea (1973-2004) Nursing Faculty
Cullinan, Michael (1990-2009) Math/Computer Science Faculty
Daugherty, James R. (1988-2015) Biology Faculty
DeMarco, Lenna (1989-2009) Dance Faculty
DePippo, Paul D. (1976-2004) Social Sciences Faculty, Department Chair
DeSoto, Marla (1992-2014) English/Reading/Journalism Faculty Dias, Diana (1998-2006) Business \& Information Technology Faculty
Dotterer, William (1966-2001) Business Faculty
Dudley, Anne (1990-2015) Mathematics Faculty
Dutton, Mary Ann (1960-1986) Choral Music Faculty
Dwyer, Diana (1982-2009) Library Faculty, Department Chair
Eastin, Gene N. (1963-1989) French/English Faculty,
Department Chair
Ellis, Albert T. (1964-1988) Biology Faculty, Department Chair
Esquer, Mario H. (1977-2009) Technology \& Consumer Science Faculty
Fischer, Mildred (1969-1998) English Faculty
Fitzgerald, Frank (1966-1989) Art Faculty, Department Chair
Foley, Thomas A. (1995-2017) Mathematics Faculty
Forney, Merrill (23 years of service) Physical Sciences Faculty
Fuenning, Richard M. (23 years of service) Physical Education
Faculty
Galletti, Marie (1975-1998) English/ESL Faculty
Gardner, Moffat (1965-1985) Social Sciences Faculty
Gareshé, Gay (1987-2014) Social Sciences Faculty
Gibbons, George R. (1968-1988) Electronics/Drafting Faculty, Department Chair
Goff, Lyenatte (1963-2004) Mathematics Faculty
Gordon, Ruby D. (1967-1992) Nursing Faculty

Goto, Darlene M. (1969-2007) Art Faculty
Griego, Manny (1976-2005) Engineering Faculty, Department Chair
Griggs, John (1971-2004) Foreign Languages/Communication Faculty, Department Chair
Gurule, Juan (1989-2009) Counseling Faculty Guyman, Vernon (1968-2000) Mathematics Faculty
Haas, Patrick (1984-2005) English Faculty
Hamilton, Mirta (1979-2009) Art Faculty
Hansen, Vance W. (1965-1991) English Faculty
Hardin, Carnella (1979-2010) Business \& Information Technology Faculty
Harris, C. Eugene (21 years of service) Music Faculty
Hartley, Jack A. (1963-1986) English Faculty
Hawks, Margaret (1967-2000) English Faculty, Department Chair

Herlihy, Harriet (1960-1989) English Faculty, Department Chair
Higgins, Don (1967-2001) Social Sciences Faculty, Department Chair
Hillis, Richard (21 years of service) Art Faculty
Hoff, Edward B. (1963-1989) Mathematics Faculty, Department Chair
Hoffs, Marilyn J. (1972-1996) Speech Communication/ Theatre Faculty, Department Chair
Holtfrerich, Michael (1988-2017) Mathematics Faculty, Department Chair
Howey, Charlotte (1989-2005) English/ESL/Spanish Faculty
Hubbard, N. LaRue (23 years of service) Business Faculty
Hubbard, Robert T. (1966-2006) Philosophy Faculty, Department Chair
Jacobs, Elizabeth "BJ" (1990-2014) Psychology Faculty James, Gerald H. (1967-1993) Mathematics Faculty

Jenkins, Carol (1992-2017) Sociology Faculty
Johanson, Leonard C. (1965-1988) Art Faculty
Johnson, Frederica (1988-2009) Reading Faculty
Johnston, Eileen (2001-2014) Social Sciences Faculty, Department Chair
Jones, M. Louise (1981-2010) Counseling Faculty
Karpinski, Susan (2004-2019) Psychology Faculty
Kersting, Joseph M. (1991-2017) Fitness \& Wellness Faculty Kidney, Charlotte (over 22 years of service) Physical Education Faculty, Department Chair
King, Dick (1973-1998) Automotive Faculty, Department Chair
King, Owena A. (1966-1989) Business Faculty
Klann, Walter (1966-1998) Mathematics Faculty
Knopp, Nelda (1966-1998) Physical Education Faculty
Knowles, Henry (1965-1989) Speech Communication Faculty
Kong, Moonie (1966-1987) Physical Education Faculty
Kurtz, Donald A. (1965-1987) Business Faculty
Lange, Merle L. (1966-1989) Counseling Faculty, Department Chair, Financial Aid Director

Langlois, Lyle R. (1968-1989) Business Faculty Lawrence, Barbara J. (1967-1988) Reading/English Faculty, Department Chair

Leskovsky, Mary (1986-2006) English Faculty, Honors Coordinator.
Lorenzini, August (1967-1985) Speech Communication/Film Faculty, Department Chair
Loss, Bonnie (1990-2021) Art \& Humanities Faculty
Ludders, Virginia (1989-2009) Theatre/Communication Faculty
Martin, Ethel A. (1963-1989) Business Faculty
Matthews, Jack K. (22 years of service) Drafting Faculty, Department Chair
Matz, Harry (1965-1989) Reading Faculty, Department Chair, Honors Coordinator.
May, Mauricette (1998-2009) French Faculty
McCarthy, Rita (1988-2015) English/Reading/Journalism Faculty
McCoy, Leslie E. (1967-1989) Electronics Faculty, Department
Chair
McKinley, Michael (1991-2012) Biology Faculty
McWilliams, Mary Lou (1968-1988) Counseling Faculty
Meeker, Joseph A. (1985-2009) CAD/Drafting Faculty
Meixner, Sylvia S. (1969-1992) Social Sciences/Sociology
Faculty, Department Chair
Mikus, Andrew (1963-1989) History Faculty, Department Chair
Miller, David (2021) English, Reading, Journalism \& Creative Writing Faculty, Developmental Education Coordinator, Department Chair
Milliner, Charles (1969-2004) Business Faculty, Department Chair
Moloso, Phillip (1966-2002) Librarian/Business/Mathematics Faculty, Department Chair
Montanus, Mark (1965-1985) Business Faculty
Murray, Marilee (1974-2000) Chemistry Faculty, Department Chair
Murry, Suzanne (1982-2011) Business Faculty
Nelson, Bonnie (1968-1999) Philosophy Faculty, Curriculum
Design Facilitator
Overson, Peter (1964-1989) Theatre Faculty
Peters, Allan M. (1965-1986) Physics Faculty, Department Chair
Pilch, Richard R. (1967-1996) Physical Education Faculty
Pisciotta, Pete (1967-1996) Mathematics/Physical Education
Faculty, Athletic Director
Pitman, Fred (1969-1997) Physics Faculty
Pommerville, Jeffrey (1989-2018) Biology Faculty
Price, David (1966-1988) Chemistry Faculty
Rassi, Martha (1984-2005) Business Faculty
Reavis, Robert, H. (1999-2021) Biology Faculty
Reeder, Duane (35 years of service) Psychology Faculty
Rees, Richard (1965-2006) Psychology Faculty
Roberson, Doyle L. (1965-1989) Mathematics Faculty
Samuels, Carl (1967-2004) Psychology Faculty
Schafer, G.K. "Duke" (1975-2007) Public Safety Sciences Faculty
Schiedat, Marilyn (1976-2008) English Faculty
Schmidt, David (1991-2022) Performing Arts, Music Industry Studies
Schwalm, Karen T. (1988-2008) English Faculty
Siefer, Nancy (1987-2007) English Faculty

Shipley, Alvin D. (1966-2001) Mathematics Faculty, Department Chair
Smart, John (21 years of service) Social Science/Economics Faculty
Smelser, Philip (1963-2009) Philosophy Faculty, Department Chair
Smith, James A. (1965-1989) Physical Education Faculty Smith, Linda (1986-2007) Social Sciences Faculty Smith, Louis L. (1963-1985) Reading Faculty, Department Chair Staheli, W. Kent (1966-1997) Physical Education Faculty, Department Chair
Staten, Jean (1975-1996) Librarian, Dean of Instruction.
Sylvester, Tim (1991-2017) Business and IT Faculty
Thompson, J.R. (Bob) (1968-2000) Geology Faculty, Department Chair
Triplett, Patricia (1983-2009) Nursing Faculty
Thrasher, John (1970-1997) Music Faculty, Director of Bands.
Ulm, Donald R. (1979-2009) Business \& Information Technology Faculty
Van Marche, Deborah (1997-2017) Psychology Faculty, Department Chair
VanMeter, Charles (1968-1989) Agriculture Faculty, Department Chair
Vawter Jr., Charles (1965-2020) Business \& Information Technology/Accounting Faculty
Walcott, Lyle (1965-2007) Philosophy Faculty
Weiss, Kenneth G. (1963-1986) Physical Education Faculty
West, Charles L. (1966-1994) Chemistry Faculty, Department Chair
Westenburg, Irwin S. "Wes" (1984) Psychology Faculty Wilhoit, Sherrill (1975-1999) Business Faculty Williams, Johnette (1970-2002) Library Faculty, Department Chair
Williams, Stephen (1981-2013) Biology Faculty, Department Chair
Wingersky, Joy (1981-2008) English Faculty
Winters, John B. (1968-2004) Physical Science Faculty

## Appendices

## Appendix A - Math Course Sequence Pathways Flowchart



# Appendix B - MCCCD Academic Calendar 2023-2024 

MARICOPA COUNTY COMMUNITY COLLEGEDISTRICT<br>2023-2024 ACADEMIC CALENDAR<br>Dates are subject to change*<br>The most up to date calendar information can be found at<br>https://district.maricopa.edu/regulations/admin-regs/section-2/academic-calendars

Colleges may modify start dates in order to meet special needs. Dates listed below which are directly related to instruction refer to the traditional academic year model. Some courses may be offered over time-periods for which these dates are not applicable. Links to ASU, GCU, NAU, and U of A calendars incorporated on last page for reference only and are subject to change without notice.

| SUMMER SEMESTER $\mathbf{- 2 0 2 3}$ | Note: Subject to the 2023-2024 Catalog |  |
| :--- | :--- | :--- |
| Mon | May 15 | Final Grades Due for Spring 2023 Semester |
| Mon | May 22 | Tuition Due for Summer 2023 Semester |
| Mon | May 29 | Memorial Day (Colleges Closed) |
| Tues | May 30 | Summer Semester Begins |
| Mon | Jun 19 | Juneteenth National Independence Day (Colleges Closed) |
| Mon-Sat | Jul 3-8 | Summer Break for Clock Hour Programs Only |
| Tues | Jul 4 | Independence Day (Colleges Closed) |
| Thu | Aug 3 | Summer Semester Ends |
| Mon | Aug 7 | Final Grades Due for Summer 2023 Semester |
|  |  |  |
| FALL SEMESTER - 2023 |  |  |
| Wed | Aug 9 | Tuition Due for Fall 2023 Semester |
| Fri | Aug 11 | First Day of Faculty Accountability |
| Sat | Aug 19 | Classes Begin |
| Mon | Sep 4 | Labor Day (Colleges Closed) |
| Mon | Sep 18 | Find Class Opens for Spring 2024 |
| Mon | Oct 2 | Spring 2024 Priority Registration for Currently Enrolled Students |
| Sat+ | Oct 7 | Last Day for Withdrawal without Instructor's Signature |
| Mon++ | Oct 9 | Student Withdrawal with Instructor's Signature Begins |
| Mon | Oct 9 | Spring 2024 Open Registration Begins |
| * |  | Application for December 2023 Graduation |
| Fri | Nov 10 | Observance of Veterans Day (Colleges Closed) |
| Thu-Sun | Nov 23-26 | Thanksgiving Day Holiday (Colleges Closed) |
| Sun | Dec 10 | Last Day of Regular Classes |
| Mon-Fri** | Dec 11-15 | Final Exams Week |
| Fri | Dec 15 | Fall Semester Ends (Last day of Faculty Accountability) |
| Sat | Dec 16 | Mid-Year Recess Begins for Students |
| Mon | Dec 18 | Final Grades Due for Fall 2023 Semester |
| Sat-Mon | Dec 23-Jan 1 | Mid-Year Recess (Colleges Closed) |

SPRING SEMESTER-2024

| Tues | Jan 2 | Employees Return |
| :--- | :--- | :--- |
| Wed | Jan 3 | Tuition Due for Spring 2024 Semester |
| Mon | Jan 8 | First day of Faculty Accountability |
| Mon | Jan 8 | Clock Hour Student Classes Begin |
| Sat | Jan 13 | Classes Begin |
| Mon | Jan 15 | Martin Luther King, Jr. Day (Colleges Closed) <br> Mon |
| Feb 19 | Presidents' Day (Colleges Closed) |  |
| Tue | Feb 20 | Find a Class Opens for Summer/Fall 2024 |
| Sat+ | Mar 2 | Last Day for Withdrawal without Instructor's Signature |
| Mon++ | Mar 4 | Student Withdrawal with Instructor's Signature Begins |
| Mon | Mar 4 | Summer/Fall 2024 Priority Registration for Currently Enrolled Students |
| * |  | Application for May 2024 Graduation |
| Mon-Sun | Mar 11-17 | Spring Break (Colleges Closed) <br> Mon |
| Mar 18 | Summer/Fall 2024 Open Registration Begins |  |
| Sun | May 5 | Last Day of Regular Classes |
| Mon-Fri** | May 6-10 | Final Exams Week |
| Fri | May 10 | Commencement |

[^7]

[^8]| M | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 10 | $\mathbf{1 1}$ | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ | $\mathbf{1 6}$ |
| R | $\mathbf{1 7}$ | 18 | 19 | 20 | 21 | 22 | 23 |
|  | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| A | 31 | 1 | 2 | 3 | 4 | 5 | 6 |
| P | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| R | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|  | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|  | 28 | 29 | 30 | 1 | 2 | 3 | 4 |
| M | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| A | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Y | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|  | 26 | $\mathbf{2 7}$ | 28 | 29 | 30 | 31 | 1 |

SUMMER SEMESTER-2024

|  |  | S | M | T | W | TH | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J | S |  |  |  |  |  |  |
|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| U | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| N | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|  | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| J | 30 | 1 | 2 | 3 | $\mathbf{4}$ | 5 | 6 |
| U | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| L | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|  | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| A | 28 | 29 | 30 | 31 | 1 | 2 | 3 |
| U | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| G | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|  | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|  | 25 | 26 | 27 | 28 | 29 | 30 | 31 |


| Instructional Days |  |
| :--- | :--- |
| Fall | Spring |
| 15 M | 13 M |
| 16 T | 15 T |
| 16 W | 15 W |
| 15 TH | 15 TH |
| $\frac{14 \mathrm{~F}}{76}$ | $\frac{15 \mathrm{~F}}{73}=149$ Total |

## Mar 11-17 Spring Break (Colleges Closed)

May 5 Last Day of Regular Classes
May 6-10 Final Exams Week**
May 10 Commencement
May 10 Spring Semester Ends (Last day of Faculty Accountability)
May 13 Final Grades Due Spring 2024 Semester
May 20 Tuition Due for Summer 2024 Semester
May 27 Memorial Day (Colleges Closed)
May 28 Summer Semester Begins

## Note: Subject to the 2024-2025 Catalog

## Jun 19 Juneteenth National Independence Day (Colleges Closed)

Jul 1-6 Summer Break for Clock Hour Programs
Jul 4 Independence Day (Colleges Closed)

Aug 1 Summer Semester Ends
Aug 5 Final Grades are Due Summer 2024 Semester
Aug 9 One (1) Day of Faculty Accountability
Aug 12-16 Five (5) Days of Faculty Accountability
Aug 17 Classes Begin

| Proposed Class Start Dates | MCCCD | ASU |
| :--- | :--- | :--- |
| Fall 2023 | Sat., Aug 19 | Thur., Aug 17 |
| Spring 2024 | Sat., Jan 13 | Mon., Jan 8 |

Calendar for less than 12-month regular employees

| 9 month employees | August 14, 2023-May 10, 2024 |
| :--- | :--- |
| 9.5 month employees | August 7, 2023-May 17, 2024 |
| 10 month employees | July 31, 2023-May 24, 2024 |

August 7, 2023 - May 17, 2024
10 month employees July 31, 2023-May 24, 2024

[^9]2023-2024

|  | S | M | T | W | TH | F | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 |
| A | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| U | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| G | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|  | 27 | 28 | 29 | 30 | 31 | 1 | 2 |
| S | 3 | $\mathbf{4}$ | 5 | 6 | 7 | 8 | 9 |
| E | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| P | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|  | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| O | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| T | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|  | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|  | 29 | 30 | 31 | 1 | 2 | 3 | 4 |
| N | 5 | 6 | 7 | 8 | 9 | $\mathbf{1 0}$ | 11 |
| O | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| V | 18 | 20 | 21 | 22 | $\mathbf{2 3}$ | $\mathbf{2 4}$ | $\mathbf{2 5}$ |
|  | $\mathbf{2 6}$ | 27 | 28 | 29 | 30 | 1 | 2 |
| D | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| E | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| C | 17 | 18 | 19 | 20 | 21 | 22 | $\mathbf{2 3}$ |
|  | $\mathbf{2 4}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{2 7}$ | $\mathbf{2 8}$ | $\mathbf{2 9}$ | $\mathbf{3 0}$ |
|  | $\mathbf{3 1}$ | $\mathbf{1}$ | 2 | 3 | 4 | 5 | 6 |
| J | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| A | 14 | $\mathbf{1 5}$ | 16 | 17 | 18 | 19 | 20 |
| N | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|  | 28 | 29 | 30 | 31 | 1 | 2 | 3 |
| F | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| E | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| B | 18 | $\mathbf{1 9}$ | 20 | 21 | 22 | 23 | 24 |
|  | 25 | 26 | 27 | 28 | 29 | 1 | 2 |
| M | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| A | 10 | $\mathbf{1 1}$ | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ | $\mathbf{1 6}$ |
| $\mathbf{R}$ | $\mathbf{1 7}$ | 18 | 19 | 20 | 21 | 22 | 23 |
|  | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|  | 31 | 1 | 2 | 3 | 4 | 5 | 6 |
| A | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| P | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| R | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|  | 28 | 29 | 30 | 1 | 2 | 3 | 4 |
| M | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| A | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Y | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|  | 26 | $\mathbf{2 7}$ | 28 | 29 | 30 | 31 |  |
|  |  |  |  |  | TOTALS |  |  |
|  |  |  |  |  |  |  |  |

Contract Year - 2023-2024
Contract Days - 196 ( 39 weeks)
Accountability Days - 170
Instructional Days - 149

Faculty Days Calendar

| Instructional | Accountability | Contract |
| :---: | :---: | :---: |
|  |  |  |
| 0 | 1 | 1 |
| 0 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |
| 3 | 3 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 0 | 5 | 5 |
| 0 | 0 | 5 |
| 0 | 0 | 5 |
| 0 | 0 | 5 |
| 0 | 5 | 5 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 0 | 0 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 5 | 5 | 5 |
| 0 | 5 | 5 |
|  |  |  |
|  |  |  |
|  |  |  |
| 149 | 170 | 196 |

Arizona State University (ASU)
Northern Arizona University (NAU)
Grand Canyon University (GCU)
University of Arizona (UA)

[^10]
## Appendix C - Maricopa Community Colleges Field of Interest Matrix: 2023-2024

Description: The Maricopa County Community College Field of Interest Matrix identifies all programs currently available for offering within the ten (10) community colleges and skill centers of the district. The programs are grouped under Field of Interest as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institutions.

Applied Technology

## AREA/PROGRAM

INSTITUTION
Air Conditioning and Electrical AccessoriesGW
Air Conditioning/Refrigeration/Facilities ..... GW
Aircraft Maintenance Technology ..... CG
Aircraft Maintenance Technology-Airframe ..... CG
Aircraft Maintenance Technology-Powerplant. ..... CG
Airway Science Technology, Flight Emphasis ..... CG
Applied Electrical Technologies ..... RS
Architectural and Civil CAD Technology. ..... GC
Architectural Technology. ..... SC
Automated Industrial Technology ..... EM MC
Automated Industrial Technology I ..... EM MC
Automated Industrial Technology II ..... EM MC
Automotive Automatic Transmission and Transaxle ..... GC GW MC
Automotive Brake Systems. ..... GC GW MC
Automotive Chassis ..... GC GW MC
Automotive Drive Train ..... GC GW MC
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems ..... GC GW MC
Automotive Electronic/Electrical Systems ..... GC GW MC
Automotive Engine and Operations Management ..... GC GW MC
Automotive Engine Management and Repair GC GW MC
Automotive Engine Repair ..... GC GW MC
Automotive Heating, Ventilation and Air Conditioning Systems GC GW MC
Automotive Maintenance and Light Repair ..... GC GW MC
Automotive Manual Drive Train and Axles ..... GC GW MC
Automotive Service ..... GC GW MC
Automotive Steering and Suspension ..... GC GW MC
Basic Automotive Maintenance ..... RS
Brakes, Alignment, Suspension and Steering ..... MC
Building Inspection ..... MC
Cable and Wire Harness Assembly ..... MC
CAD Application ..... GC
CAD Fundamentals ..... GC
Carpenter Apprenticeship ..... GW
Caterpillar Technician Training ..... MC
Certified Flight Instructor Instrument Airplane Rating ..... CG
Clean Energy Management. ..... PC
CNC Machine Operator ..... GW MC
CNC Machining I ..... GW MC
CNC Machining II ..... GW MC
Collision Repair Technician ..... GW
Computer Aided Drafting. ..... MC
Construction Building Codes ..... MC
Construction Management. ..... MC
Construction Safety OSHA 30 ..... MC
Construction Technology ..... MC SM
Construction Trades - Mechanical Trades: Pipefitting ..... GW
Construction Trades - Mechanical Trades: Plumbing ..... GW
Construction Trades - Mechanical Trades: Sheet Metal ..... GW
Construction Trades: Carpentry ..... GW MC RS SM
Construction Trades: Carpentry, Commercial and Residential ..... GW MC RS SM
Construction Trades: Construction Management ..... MC
Construction Trades: Electrical GW MC RS SM
Construction Trades: Electrical, Commercial and Residential ..... GW MC RS SM
Construction Trades: Electricity ..... GW
Construction Trades: Heat and Frost Insulation ..... GW
Construction Trades: Ironworking ..... GW
Construction Trades: Millwrighting ..... GW
Construction Trades: Painting and Drywalling ..... GW
Construction Trades: Plumbing ..... GW MC RS SM
Construction Trades: Plumbing, Commercial and Residential ..... GW MC RS SM
Construction Trades: Pre-Apprenticeship. ..... GW
Drafting and Design Technology ..... MC
Electrical Systems Technology ..... EM
Electrical Technology ..... GW
Electrical Technology - Commercial Wiring ..... GW
Electrical Technology - Industrial Wiring ..... GW
Electrical Technology: Residential Wiring. ..... GW
Energy and Industrial Technology ..... EM
Engine Performance and Diagnosis ..... GW
Environmental Science and Water Resources Technologies ..... GW
Environmental Science Technology ..... GW
HVAC Commercial Installation and Service Technician ..... GW
HVAC Residential Installation and Service Technician ..... GW
Industrial Design Technology ..... GW
Industrial Design Technology: Design Specialist ..... GW
Industrial Sewing ..... PC
International Residential Code ..... MC
Introduction to Semiconductor Manufacturing ..... RS
J-STD Soldering Certification ..... MC
Lineman Technology Level I ..... RS
Lineman Technology Level II ..... RS
Lineman Technology Level III ..... RS
Lineman Technology Level IV ..... RS
Manufacturing Production Technology ..... MC
Mechanical Drafting ..... MC
Mechanical Systems Technology ..... EM
Millwrighting ..... GW
Nuclear Power Technology ..... EM
Precision Optics Level I ..... RS
Precision Optics Level II. ..... RS
Quality Assurance ..... GW
Robotics Technology ..... EM MC
Salt River Project Relay Apprentice ..... MC
Semiconductor Manufacturing ..... RS
Unmanned Aircraft Systems ..... CG
Water and Wastewater Treatment ..... GW
Welding ..... MC
Welding: Fundamentals ..... GW MC
Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW) ..... MC
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous ..... MC
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous ..... GW
Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous ..... MC
Welding: Shielded Metal Arc Welding (SMAW) ..... GW
Welding: Shielded Metal Arc Welding (SMAW) Pipe ..... GW MC
Welding: Shielded Metal Arc Welding (SMAW) Plate ..... MC
Behavioral Science and Human Services
AREA/PROGRAM
INSTITUTION
Addictions and Substance Use Disorders ..... RS
Addictions and Substance Use Disorders Level I ..... RS
Addictions and Substance Use Disorders Level II ..... RS
Administration of Justice CG EM GC MC PC PV RS SC SM
Administration of Justice Studies. CG EM GC MC PC PV RS SC SM
Adolescent Studies ..... PC
Advanced Behavioral Sciences ..... GC SM
Advanced Corrections and Detention ..... RS
Advanced Juvenile Corrections ..... RS
Associate in Arts, Emphasis in Counseling and Applied Psychological Science. CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Criminal Justice. CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Family Life Education CG EM GC GW MC PC PV RS SC SMCG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Political Science CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Psychology CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Social Work ..... CG EM GC GW MC PC PV RS SC SM
Basic Corrections ..... RS
Basic Detention. ..... RS
Behavioral Sciences ..... GC SM
Child and Family Organizations Management and Administration ..... GC RS
Community Emergency Response Team (CERT): Level I ..... PC
Corrections CG EM GC MC PC PV RS SC SM
Corrections and Detention ..... RS
Crime Scene Investigation CG GC MC PC SC SM
Developmental Disabilities Specialist ..... GC
Driver Operator ..... GC MC PC PV
Emergency Communications ..... RS
Emergency Communications and Deployment. ..... PC
Emergency Management. GC MC PC PV
Fingerprint Identification and Photography ..... CG GC MC PC SC SM
Fire Science GC MC PC PV
Fire Service Management ..... GC MC PC PV
Firearms ..... RS
Firefighter Operations GC MC PC PV
Forensic Science ..... CG GC MC PC PV SC SM
Foundations of Behavioral Sciences ..... GC SM
Hazardous Materials Response ..... PC
Homeland Security ..... CG GC PC RS SM
Juvenile Corrections ..... RS
Law Enforcement. CG EM GC MC PC PV RS SC SM
Law Enforcement Field Training ..... RS
Law Enforcement Investigation . ..... GC RS
Law Enforcement Training ..... CG GC RS

Debt Resolution: Customer Service ..... RS
Debt Resolution: Sales ..... RS
Enrolled Agent CG GC MC PC PV RS SC SM
Entrepreneurial Studies Level I GC GW MC PC PV RS SC SM
Entrepreneurial Studies Level II C GW MC PC RS SC SM
Esports CG GC PC PV RS SM
Fashion Merchandising ..... MC PC
Financial Industry ..... GW
Financial Service CG GC GW MC PC PV SC SM
Financial Services Retirement Accounts: Customer Service ..... RS
General Business CG EM GC GW MC PC PV RS SC SM
Hospitality: Golf Management ..... SC
Hospitality: Hotel Management ..... SC
Hospitality: Meeting and Event Management ..... SC
Hospitality: Restaurant Management ..... SC
Hospitality: Spa and Wellness Center Management. ..... SC
Hospitality: Tourism Development and Management. ..... SC
Human Resources Management ..... GC GW MC PC RS SC SM
Insurance: Customer Service ..... RS
Licensed Residential Appraiser ..... MC
Loan Consolidation: Customer Service ..... RS
Management CG GC MC PC PV RS SC SM
Marketing GC GW MC PC PV SC SM
Marketing and Sales ..... GC GW MC PC PV SC
Organizational Leadership CG EM GC GW MC PC PV RS SC SMOrganizational ManagementCG EM GC GW MC PC PV RS SC SM
Prescription Prior Authorization: Customer Service ..... RS
Project Management ..... MC
Property Insurance: Customer Service ..... RS
Public Administration ..... RS
Quality Customer Service ..... RS
Real Estate: Prelicense. ..... GC MC RS SC SM
Residential Appraisal Trainee ..... MC
Retail Management ..... CG EM GC GW MC PC RS SC SM
Retail Pharmacy: Customer Service ..... RS
Risk Management and Insurance ..... MC RS SC
Security Industry Essentials: Pre-licensure CG GC GW PC SC
Small Business Management II CG GC GW MC PC RS
Small Business Management Level I ..... CG EM GC GW MC PC RS
Small Business Start-Up ..... CG PV
Social Media Marketing CG EM GC MC PC PV SC SM
State Service Leadership: ADOT Leads ..... GW
Telecommunications Collections: Customer Service ..... RS
Utilities: Customer Service ..... RS
Water Services: Customer Service ..... RS
Web Hosting: Customer Service ..... RS
Computer and Information Technology
AREA/PROGRAM
INSTITUTION
Adobe Foundations: Animation and Graphics Production ..... CG GC MC PV SM
Adobe Foundations: Audio and Video Production ..... MC SM
Amazon Web Services Cloud Associate ..... CG GC GW MC PC PV SC SM
Amazon Web Services Cloud Practitioner CG GC GW MC PC PV SC SM

|  |  |
| :---: | :---: |
| A |  |
| Associate in Science, Emphasis in Computer Science ............................................................... CG EM GC GW MC PC PV RS SC SM |  |
| Blockchain Technology ....................................................................................................... RS |  |
| Cisco Certified Network Professional: Enterprise ..................................................................... CG GC GW MC PV SC SM |  |
| Cisco Certified Network Professional: Enterprise Advanced Routing and Services .......................... CG GC GW MC PV SC SM |  |
| Cisco Certified Network Professional: Enterprise Core............................................................. CG GC GW MC PV SC SM |  |
| Cisco Network Administration and Security ........................................................................... CG EM GC GW MC PV SC SM |  |
| Cisco Network Administration: CCNA .......................................................................................... CG EM GC GW MC PC PV SC SM |  |
| Cisco Network Administration: CCNP .................................................................................... CG GC MC PC SC SM |  |
| CompTIA A+ Certification Prep ............................................................................................. GW |  |
| CompTIA Security+ Certification Prep ................................................................................... GW |  |
| Computer Information Systems............................................................................................ GW |  |
| Computer Support Specialist ............................................................................................... GW |  |
| Computer System Configuration and Support........................................................................ CG EM GC GW MC PC PV RS SC SM |  |
| Computer System Configuration and Support, Linux ............................................................... CG EM GC GW MC PC PV SC SM |  |
| Computer System Configuration and Support, Network........................................................... CG EM GC GW MC PC PV RS SC SM |  |
| Computer System Configuration and Support, Security ............................................................ CG EM GC GW MC PC PV RS SC SM |  |
| Critical Infrastructure..........................................................................................................EM GC |  |
| Cross Functional Design and Web Essentials ........................................................................... SC |  |
| Cross-Platform App Development ........................................................................................ GW MC PC RS SM |  |
| Cyber Engineering............................................................................................................. CG EM GC MC PC PV RS SC SM |  |
| Cyber Operations.............................................................................................................. CG GC GW MC PV SM |  |
| Cybersecurity .................................................................................................................... CG EM GC GW MC PC PV RS SC SM |  |
| Cybersecurity Fundamentals ................................................................................................ CG EM GC GW MC PC PV RS SC SM |  |
| Data Analytics .................................................................................................................... CG EM GW MC PV RS SC |  |
| Data Analytics and Programming ......................................................................................... MC |  |
| Database Development .......................................................................................................EM MC SC |  |
| Desktop Support.............................................................................................................. CG EM GC GW MC PC PV RS SC SM |  |
| Foundations of Mobile App Development.............................................................................. MC PC RS SM |  |
| Information Security ........................................................................................................... GC |  |
| Information Security Technology.......................................................................................... GC |  |
| Information Technology .................................................................................................... CG EM GC GW MC PC PV RS SC SM |  |
| iOS App Development......................................................................................................... CG GC GW MC PC PV RS SC SM |  |
| IT Security Associate ............................................................................................................ EM |  |
| Kubernetes Administration.................................................................................................. CG MC |  |
| Kubernetes Application Development................................................................................... CG MC |  |
| Kubernetes Security........................................................................................................... CG MC |  |
| Linux Associate ................................................................................................................. CG EM GC GW MC PC PV SC SM |  |
| Linux System Administration ............................................................................................... CG EM GC GW MC PC PV SC SM |  |
| Microsoft Desktop Associate ............................................................................................... CG EM GC GW MC PC PV SC SM |  |
| Microsoft Office Professional .............................................................................................. CG EM GC GW MC PC PV RS SC SM |  |
| Microsoft Office Specialist................................................................................................... CG GC GW MC PV RS SC SM |  |
| Microsoft System Administration .......................................................................................... CG GC MC PC PV |  |
| Mobile App Development................................................................................................... MC PC PV RS SC SM |  |
| Native Mobile App Development ......................................................................................... MC PC PV RS SM |  |
| Network and Cyber Fundamentals ....................................................................................... GW |  |
| Network and Systems Administration .................................................................................. CG EM GC GW MC PC PV SC SM |  |
| Network Specialist ............................................................................................................. GW |  |
| Network Support Specialist ................................................................................................. GW |  |
| Network Support Technician .............................................................................................. GW |  |
| Oracle Database Operations................................................................................................ CG |  |
| Programming .................................................................................................................... RS SM |  |
| Programming and Systems Analysis ..................................................................................... CG EM GC MC PC PV RS SC |  |


| Programming and Systems Analysis Level I | CG EM GC MC PC PV RS SC |
| :---: | :---: |
| Programming and Systems Analysis Level II | . CG EM GC MC PC PV RS SC |
| Python Applications. | CG MC SM |
| Red Hat Linux Administrator | CG EM GC GW MC PC PV SC SM |
| Red Hat Linux Engineer. | CG EM GC GW MC PC PV SC SM |
| Security Specialist. | GW |
| Video Game Production. | GC MC PV |
| Video Game Production: Audio and Sound | GC MC PV |
| Video Game Production: Coding and Scripting | .... GC MC PV |
| Video Game Production: Game Art | . GC MC PV |
| Video Game Production: Game Narrative | .. GC MC PV |
| VMware Foundations | . EM GC GW MC PC SC |
| VMware Network Administrator | ..... CG EM GC MC |
| VMware Systems Administrator | . EM GC GW MC PC SC |
| Web App Development | .. CG GC GW MC PC PV RS SM SC |
| Web Design. | .... CG EM GC MC PV RS SC SM |
| Web Design/Development | ....CG EM GC MC PC PV RS SC SM |
| Web Development. | ....CG EM GC GW MC PC PV SC SM |
| Web Foundations | ..... CG EM GC MC PC PV RS SC SM |
| Windows App Development. | GW MC PC RS SM |

## Culture and Society

## AREA/PROGRAM

## INSTITUTION

African-American Studies ................................................................................................................ MC
American Indian Studies .................................................................................................................. MC PC SC
Applied Bilingual Spanish Language Skills.........................................................................................SM
Applied Storytelling ........................................................................................................................EM SM
Associate in Arts, Emphasis in American Indian Studies................................................................... CG EM GC GW MC PC PV SC SM
Associate in Arts, Emphasis in Anthropology................................................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Communication ................................................................................ CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Economics ......................................................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in English (Creative Writing) ................................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in English (Literature) ............................................................................ CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in History ............................................................................................. CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Humanities ........................................................................................ CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Information Studies and eSociety...................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Japanese ........................................................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Journalism and New Media Studies ................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Philosophy ........................................................................................ CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Religious Studies................................................................................ CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Sociology .......................................................................................... CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Spanish ............................................................................................. CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Women and Gender Studies ............................................................. CG EM GC GW MC PC PV RS SC SM
Chicana and Chicano Studies ............................................................................................................ CG GC PC
Communication Competence in the Workplace............................................................................... GC MC
Communication Skills for Non-Native English Speakers .................................................................... GC MC
Creative Writing.............................................................................................................................. CG EM GC MC PC PV RS
Deaf Studies.....................................................................................................................................PC
Foundations of Storytelling...............................................................................................................EM SM
Global Citizenship ............................................................................................................................ MC
International Studies ........................................................................................................................ PC
Interpreter Preparation .................................................................................................................... PC
Journalism and New Media Studies.................................................................................................. MC
Language and Literary Culture of the USA ..... RS
Language Studies ..... CG GC MC RS
Oral Communication Fluency for Non-Native English Speakers ..... GC MC
Public Relations ..... MC
Southwest Studies ..... PC
Spanish Language and Culture ..... CG MC RS
Sustainability and Ecological Literacy ..... EM RS SM
Sustaining and Advancing Indigenous Nations ..... SC
Traditional and Fact-Based Storytelling ..... EM SM
Women and Gender Studies ..... CG MC
Education
AREA/PROGRAM INSTITUTION
Associate in Arts, Elementary Education (AAEE) CG EM GC GW MC PC PV RS SC SMAssociate in Arts, Emphasis in Early Childhood EducationCG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Educational Studies Early Childhood CG EM GC GW MC PC PV RS SC SMAssociate in Arts, Emphasis in Secondary Education
CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Secondary Education ..... CG EM GC GW MC PC PV RS SC SM
Early Childhood Education CG GC MC PC PV RS
Early Childhood Education - Dual Language ..... MC
Early Childhood Education Management and Administration ..... PV RS
Elementary Education and Special Education ..... GC PV RS
Foundations of Early Childhood Education ..... CG EM GC MC PC PV RS
Gifted Education ..... EM
Infant and Toddler Development ..... GC PV RS
Instructional Assistance ..... MC SM
K-12 eLearning Design ..... RS
K-12 Online Teaching ..... RS
Health Sciences
AREA/PROGRAMAccelerated Ophthalmic Medical AssistantGW
Accelerated Pharmacy Technician ..... GW
Aesthetician (24 Hours Per Week). ..... GW
Aesthetics Instructor ..... GW
Associate in Arts, Emphasis in Community Health CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Exercise Science CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Nutritional Science CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Speech and Hearing Science CG EM GC GW MC PC PV RS SC SM
Basic Phlebotomy ..... GW PC
Clinical Data Coordination ..... PV
Clinical Medical Assisting ..... PC
Clinical Phlebotomy ..... PC
Clinical Research Coordination ..... PV
Community Health Paramedicine ..... GC MC PC PV
Community Health Work ..... PV SC
Computed Tomography ..... GW
Cosmetologist (32 Hours Per Week) ..... GW
Cosmetology Instructor ..... GW
Critical Care Paramedicine ..... GC MC PC PV
Dental Assisting ..... PC
Dental Hygiene ..... MC PC RS
Diagnostic Medical Sonography ..... GW
Electrocardiogram (ECG) Technician ..... GW
Electroneurodiagnostic (END) Technology ..... GW
Emergency Medical Services and Fire Preparatory Academy ..... GW
Emergency Medical Technology CG GC GW MC PC PV RS
Emergency Medical Technology Comprehensive ..... CG GC MC PC PV
Endoscopy ..... GW
Exercise Science: Health, Fitness, and Sports Performance. ..... CG GC MC PV SC SM
Fast Track Practical Nursing ..... GC GW MC
Foundations of Community Health Work ..... SC
Foundations of Recreation Management ..... SC
Foundations of Sports Medicine. ..... RS
Hair Stylist ..... GW
Health Information Technology ..... PC
Health Information: Long Term Care Settings ..... PC
Health Science Education ..... GW
Health Services Management ..... GW
Healthcare Regulatory Compliance ..... GW
Healthcare Technology Systems ..... PV
Histologic Technology ..... PC
Hospital Central Service Technology ..... GW
Laboratory Assisting ..... PC
Law Enforcement Phlebotomy ..... GW
Law Enforcement Phlebotomy Refresher Course ..... GW
Magnetic Resonance Imaging ..... GW
Massage Therapy ..... GW PC
Medical Administrative Assisting ..... PC
Medical Assisting ..... GW PC
Medical Billing and Coding: Physician-Based ..... GW PC
Medical Coding: Hospital-Based ..... PC
Medical Interpreter - Spanish ..... GW
Medical Laboratory Science. ..... PC
Musculoskeletal Sonography. ..... GW
Nail Technician. ..... GW
Nail Technician Instructor ..... GW
Nuclear Medicine Technology ..... GW
Nuclear Medicine Technology and Computed Tomography ..... GW
Nurse Assisting ..... GC GW MC PV SC
Nursing ..... CG EM GC GW MC PC PV SC
Nursing Refresher ..... GW MC
Nutrition and Dietetic Technology. ..... PV
Nutrition for Personal Trainers and Coaches ..... SC
Occupational Therapy Assistant ..... GW
Operating Room Nursing ..... GW
Ophthalmic Medical Administrative Assistant Apprenticeship ..... GW
Ophthalmic Medical Assistant ..... GW
Ophthalmic Medical Assistant Apprenticeship ..... GW
Paramedicine ..... GC MC PC PV
Personal Training ..... CG GC MC PV SC SM
Personal Training: Advanced ..... CG GC MC PV SC SM
Pharmacy Technician ..... GW
Pharmacy Technician Apprenticeship. ..... GW
Pharmacy Technology ..... GW PV SC
Phlebotomy ..... GW
Physical Therapist Assisting ..... GW
Practical Nursing ..... CG EM GC GW MC PC PV SC
Radiologic Technology ..... GW
Recreation Management ..... SC
Respiratory Care ..... GW
Sleep Medicine (Polysomnographic) Technology ..... GW
Spanish Interpreting for Healthcare Professionals ..... GW
Spanish Interpreting for Healthcare Professionals (6 hours/week) ..... GW
Speech Language Pathology Assistant ..... EM
Surgical Technology ..... GW
Sustainable Food Systems ..... RS
Sustainable Food Systems: Food Entrepreneur ..... RS
Sustainable Food Systems: Food Service ..... RS
Tactical Emergency Casualty Care ..... GC MC PC PV
Workforce Development: Introduction to Sustainable Food Systems ..... RS
Yoga Instruction ..... SC
Science, Technology, Engineering and Mathematics
AREA/PROGRAM INSTITUTION
Artificial Intelligence and Machine Learning ..... CG EM
Associate in Arts, Emphasis in Geography CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Mathematics CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Sustainability and Environmental Studies CG EM GC GW MC PC PV RS SC SMCG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Biochemistry CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Biological Sciences CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Chemistry CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Engineering CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Geography - Meteorology CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Geology CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Physics ..... CG EM GC GW MC PC PV RS SC SM
Biomedical Equipment Technology ..... MC
Biotechnology and Molecular Biosciences ..... GC
Electronics Engineering Technology ..... MC
Electronics Technology ..... MC
Engineering Technology ..... CG EM GC PV SM
Environmental and Natural Resource Conservation ..... PC
Environmental and Natural Resource Stewardship ..... PC
Equine Science ..... SC
Food Science and Technology I ..... SM
Food Science and Technology II ..... SM
Geographic Information Science ..... PC
Geospatial Technologies ..... MC
Landscape Aide ..... MC
Landscape Horticulture ..... MC
Landscape Specialist ..... MC
Mortuary Science ..... CG
Sustainability ..... CG GC MC PV RS SC SM
Sustainable Agriculture ..... MC
Veterinary Assisting ..... MC
Veterinary Technology. ..... MC

## Visual and Performing Arts

## AREA/PROGRAM

## INSTITUTION

Alteration Specialist........................................................................................................................ MC PC
Animation ........................................................................................................................................ GC MC PC
Animation and Time-Based Media ................................................................................................... GC MC PC
Apparel Construction........................................................................................................................ MC PC
Associate in Arts, Fine Arts ............................................................................................................... CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Art..................................................................................... CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Dance................................................................................ CG GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Music ................................................................................. CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Musical Theatre................................................................. CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Theatre ............................................................................... CG EM GC GW MC PC PV SC SM
Audio Production Technologies........................................................................................................ GC MC PC PV
Beginning Piano Pedagogy................................................................................................................ MC
Ceramics ......................................................................................................................................... MC
Commercial and Freelance Photography.......................................................................................... GC PC
Costume Design and Production, Level I ......................................................................................... MC PC
Costume Design and Production, Level II .........................................................................................PC
Dance Performance and Technology ................................................................................................ SC
Digital Arts: Digital Photography ...................................................................................................... CG MC
Digital Media Arts ............................................................................................................................GC PC
Disc Jockey Techniques..................................................................................................................... MC
Disc Jockey Techniques I.................................................................................................................. MC
Disc Jockey Techniques II.................................................................................................................. MC
Documentary Film Production.......................................................................................................... GC
Drawing and Painting...................................................................................................................... MC
Editing............................................................................................................................................ SC
Fashion Design............................................................................................................................... MC PC
Fashion Design: Entrepreneur ..........................................................................................................PC
Fashion Design: Level I..................................................................................................................... MC PC
Fashion Design: Level II.................................................................................................................... PC
Fashion Illustration ...........................................................................................................................PC
Film and Media Production .............................................................................................................. GC
Graphic Design................................................................................................................................. MC PC
Illustration ........................................................................................................................................ CG MC PC
Illustration and Sequential Art.......................................................................................................... CG MC PC
Image Consultant............................................................................................................................ MC
Interior Design ................................................................................................................................ PC SC
Interior Design Kitchen and Bath ...................................................................................................... PC SC
Interior Design Professional.............................................................................................................. SC
Interior Design Technology............................................................................................................... PC SC
Interior Design Upholstery and Soft Goods Production......................................................................PC
Interior Merchandising and Home Staging ....................................................................................... PC SC
Intermediate Piano Pedagogy .......................................................................................................... MC
Motion Picture Production ............................................................................................................... SC
Motion Picture, Television, and New Media Production ................................................................... SC
Music Business I............................................................................................................................... GC MC PC PV SM
Music Business II............................................................................................................................... GC MC PC PV SM
Music Industries: Music Business ...................................................................................................... GC MC PC PV SM
Pattern Design, Level I ......................................................................................................................PC
Pattern Design, Level II ....................................................................................................................PC
Photography .................................................................................................................................... CG GC MC PC
Retail Sales Manager ....................................................................................................................... MC
Screenwriting ..... SC
Sequential Art ..... CG MC PC
Stage Combat ..... PV
Technical Theatre ..... MC PC SC
Technical Theatre: Audio Technician ..... GC MC PC PV
Technical Theatre: Cosplay I ..... MC
Technical Theatre: Cosplay II ..... MC
Technical Theatre: Costuming ..... GC MC PC PV
Technical Theatre: Hair and Makeup ..... MC
Technical Theatre: Lighting ..... MC PC PV
Technical Theatre: Properties MC PC PV SC
Technical Theatre: Puppetry ..... MC PC PV
Technical Theatre: Set/Scenic Construction ..... MC PC
Technical Theatre: Stage Crew Technician ..... GC MC PC PV SC
Textile and Apparel: Fashion Stylist ..... MC
Time-Based Media ..... MC PC
Visual Communication ..... SC
Visual Communication: Creative Branding ..... SC
Visual Communication: Design ..... SC
Visual Communication: Digital Process Management ..... SC

## Appendix D - Fast Track Certificates

If you are looking for opportunities to jump-start, re-career or specialize in your current field, GCC can help you with Fast Track Certificates. In a few months, or even weeks, you can get the training you need for a new job or promotion. You can continue adding Fast Track Certifications to expand your specialized skill set, stay current in your field, and increase your workplace value - and pay.

## Get on the Fast Track

Fast Track Certificates require no more than 15 credits, so you can complete your training within two semesters or fewer. Imagine being work-ready in as little as six months - or even a few weeks - instead of two to four years. You can even use Fast Track Certificates as stepping-stones toward a future degree.

See the list below for all the options available to you at GCC

- Read an article that describes Fast Track Certificates.
- Visit the Maricopa Community Colleges Fast Track Certificates website.
- Unsure about your path? Visit Maricopa Pipeline AZ to take a Career Quiz.


## Fast Track Certificates

## Applied Technology

- Automotive Automatic Transmission and Transaxle
- Automotive Brake Systems
- Automotive Electrical, Heating, Ventilation, and Air Conditioning Systems
- Automotive Electronic/Electrical Systems
- Automotive Engine Performance
- Automotive Engine Repair
- Automotive Heating, Ventilation, and Air Conditioning Systems


## Behavioral Sciences \& Human Services

- Administration of Justice
- Corrections
- Driver Operator
- Fingerprint Identification and Photography
- Homeland Security
- Law Enforcement
- Legal Studies
- Victimology


## Business, Entrepreneurialism, \& Management

- Entrepreneurial Studies Level I
- Real Estate: Prelicense
- Security Industry Essentials: Pre-licensure
- Small Business Management Level I


## Computer \& Information Technology

- Amazon Web Services Cloud Practitioner
- Cisco Certified Network Professional: Enterprise Advanced Routing and Services
- Cisco Certified Network Professional: Enterprise Core
- Cisco Network Administration: CCNA
- Computer System Configuration and Support
- Computer System Configuration and Support, Linux
- Computer System Configuration and Support, Network
- iOS App Development
- Linux Associate
- Microsoft Desktop Associate
- Red Hat Linux Administrator
- Red Hat Linux Engineer
- VMware Foundations
- VMware Systems Administrator
- Web App Development


## Health Sciences

- Emergency Medical Technology
- Emergency Medical Technology (EMT)
- Nurse Assisting


## Visual \& Performing Arts

- Technical Theatre: Stage Crew Technician


## Appendix E - Degrees with Summer 2023 Final Term

## Administration of Justice Studies

Major Code: 3181
Total Credits: 61-65
Description: The Associate in Applied Science (AAS) in Administration of Justice Studies provides in-depth preparation for students desiring to be practitioners or pursue continued education and advancement in several fields including local and federal law enforcement, the courts, corrections, security, and investigations. The program also provides criminal justice practitioners with the opportunity to complete the Certificate of Completion (CCL) in Administration of Justice as well as one of five Certificates of Completion (CCLs) in Corrections, Homeland Security, Law Enforcement, Legal Studies, and Victimology. A transfer pathway in Criminal Justice is also available (Associate Arts (AA), Emphasis in Criminal Justice) as well as an Associate in Applied Science (AAS) in Forensics and related Certificates of Completion.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 28-30
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS123 Ethics and the Administration of Justice 3

AJS200 Current Issues in Criminal Justice (3) OR
AJS/EMT/FSC/SWU258 Victimology and Crisis Management (3) 3
AJS212 Juvenile Justice Procedures 3
AJS225 Criminology 3
AJS230 The Police Function 3
AJS240 The Correction Function 3
AJS260 Procedural Criminal Law 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 12-13
AJS113 Criminal Justice Crime Control Policies and Practices 3 (Fulfills ASU transfer requirement)

AJS119 Computer Applications in Justice Studies 3
(Fulfills NAU transfer requirement)
AJS162 Domestic Violence 3
(Fulfills Victimology certificate requirement)

AJS201 Rules of Evidence 3
(Fulfills Legal Studies certificate requirement)
AJS205 Effective Communication and Report Writing in Criminal Justice 3
(Fulfills Corrections, Law Enforcement and Legal Studies certificate requirement)

AJS210 Constitutional Law 3
(Fulfills Legal Studies certificate requirement and NAU transfer requirement)

AJS255 The Criminal Justice System Handling of the Mentally III 3 (Fulfills Corrections and Victimology certificate requirement)

AJS270 Community Relations 3
(Fulfills GCU transfer requirement)
AJS275 Criminal Investigation I 3
(Fulfills Corrections and Law Enforcement certificate
requirement and GCU transfer requirement)

## AJS290BN Courtroom Testimony Seminar 1

AJS+++++ Any AJS Administration of Justice Studies course not listed under Required Courses area (3) OR
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
(BPC110 or CIS105 fulfills transfer requirement)
CIS114DE Excel Spreadsheet 3
(Fulfills NAU transfer requirement)
PSY101 Introduction to Psychology (3) OR
SOC101 Introduction to Sociology (3) 3
(Fulfills ASU transfer requirement)
REC120 Leisure and the Quality of Life 3
(Fulfills ASU transfer requirement)
SWU171 Introduction to Social Work 3
(Fulfills ASU transfer requirement)
General Electives
Credits: 0-5
Select additional courses 100 -level or higher to complete the minimum total program credits required for this degree.

Select courses not already listed in Required Courses, Restrictive Electives, or General Education requirements. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommend the following for transfer:
Any course with an [HU] and [G] general education designation

## General Education Requirements

## Credits: 16-22

## GENERAL EDUCATION CORE

## Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(Recommend COM225 for students intending to transfer)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Any higher approved general education course in the Mathematics area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 4

Humanities, Arts and Design (0 credits)
Met by AJS123 in the Required Courses area

## Social-Behavioral Sciences (0 credits)

Met by AJS200 or AJS/EMT/FSC/SWU258 Required Courses area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

Recommended for transfer:
FOR105 Forensic Science: Physical Evidence (4) OR
FOR106 Forensic Science: Biological Evidence (4) OR
Any course with the [SQ] general education designation (4) 4

## Administrative Professional

Major Code: 3680
Total Credits: 62-70

Description: The Associate in Applied Science (AAS) in the Administrative Professional degree is designed to provide training for various office positions. The curriculum
incorporates people and technological skills essential for job success. Includes instruction in business communications, office procedures, public relations, accounting, records management, and report preparation. A Certificate of Completion (CCL) in Administrative Professional is also available.

Program Notes: Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 25-27

## ACC115 Computerized Accounting 3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3 CIS114DE Excel Spreadsheet 3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS120 Workplace Communication Skills 3
GBS131 Business Calculations 3
GBS151 Introduction to Business 3

Select three (3) of the following courses:
BPC101AA Introduction to Computers I 1
BPC/OAS111AA Computer Keyboarding I 1
CIS121AE Windows Operating System: Level I 1
CIS121AI Mac Operating System 1

+ CIS122AE Windows Operating System: Level II 1
CIS133AA Internet/Web Development Level I-A 1


## Restricted Electives

Credits: 15
Students should select 15 credits from the following courses, except courses used to satisfy the Required Courses area, in consultation with a program advisor:

ACC+++ Any ACC Accounting prefixed course (except ACC115) 3
MGT251 Human Relations in Business 3
MGT126 Customer Service Skills and Strategies 3
CIS133DA Internet/Web Development: Level I 3

+ CIS214DE Advanced Excel Spreadsheet: Level II 3
CIS103 Introduction to Social Media 3
MKT110 Marketing and Social Networking 3
CIS117DM Microsoft Access: Database Management 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MKT271 Principles of Marketing 3

General Education Requirements
Credits: 22-28

## GENERAL EDUCATION CORE

## Credits: 12-18

First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

Any approved general education course from the Critical Reading area OR
Equivalent as indicated by assessment (0) 0-3

## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area OR
Equivalent as indicated by assessment

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

Social-Behavioral Sciences (3 credits)
SBU200 Society and Business 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural
Sciences area

## Animation and Time-Based Media

Major Code: 3199
Total Credits: 69-77

Description: The Associate in Applied Science (AAS) in Animation and Time-Based Media is designed for the student who wishes to develop marketable skills in the area of digital animation and time-based media development. The program provides the student with an understanding of the equipment, operations, and knowledge of the terminology related to still image, video, and animation production. It allows for the exploration of personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are included in video and multimedia fields, such as digital animator, media production, marketing, publishing, motion graphics,
photography, storyboard artist, freelance artist designer, web and interactivity design, and multimedia artist/designer. A Certificate of Completion (CCL) in Animation and in Time-Based Media are also available.

Program Notes: Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 17-19
ART100 Introduction to Digital Arts 1

+ ADA/ART169 2D Media Design (3) OR
+ ART178 Digital Arts Studies (3) 3
+ ADA/ART177 Digital Photographic Imaging I 3
+ ADA/ART/MMT184 Digital Animation I 3
ADA/ART248 Design Self Promotion (3) OR
ART255 Art Marketing (3) 3
+ ART280AC Digital Media Arts and Design Capstone 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3


## Restricted Electives

Credits: 30

## Specialization 1: Digital Animation

ART111 Drawing 13
ART116 Life Drawing I 3
ART/COM/STO150 Digital Storytelling (3) OR
CRW150 Introduction to Creative Writing (3) OR
CRW172 Introduction to Comic Book Writing (3) OR
CRW176 Writing Narrative for Video Games (3) OR
FMT121 Story Theory for Film, Television and Media (3) 3

ART170 3D Computer Design (3) OR
ART/THP246 Digital Fabrication (3) 3

+ ART/MMT185 3D Modeling for Animation I 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
+ ART284 Digital Animation II 3
+ ART/MMT285 3D Modeling and Animation II 3
+ ART287 3D Character Animation 3

Specialization 2: Time-Based Media
ART111 Drawing I (3) OR
ART116 Life Drawing I (3) 3
ART142 Introduction to Digital Photography 3
ART/COM/STO150 Digital Storytelling (3) OR
FMT121 Story Theory for Film, Television and Media (3) OR
JRN213 Writing for Online (3) 3

+ ART202 Media Productions I (3) OR
FMP108 Video Production (3) 3
+ ART279 Media Productions II (3) OR
+ FMP215 Digital Video Effects (3) 3

MTC191 Electronic Music I (3) OR
MUC122 Sound Design I (3) 3
Complete 12 credits from courses not already selected in the Required Courses area. Students may choose from one emphasis or from among multiple emphasis areas according to their occupational needs.

## Photography Emphasis

ART131 Photography I 3

+ ART138 Commercial Photography I 3
+ ART140 Portrait Photography 3
+ ART143 Intermediate Digital Photography 3
+ ART270 Digital Photographic Imaging II 3


## Audio Emphasis

+ FMP114 Audio Production 3
MTC191 Electronic Music I 3
+ MTC192 Electronic Music II 3
MUC122 Sound Design I 3
MUC195 Studio Music Recording I 3
+ MUC222 Sound Design II 3
Media Production Emphasis
ART/COM/STO145 Digital Storybook 1
+ ART/MMT190 Art of Web Site Design 3
+ ART192 Advanced Web Presentation Design 3
ART/THP246 Digital Fabrication 3
CIS133DA Internet/Web Development Level I 3
+ FMP204 Advanced Video Production 3
+ FMP215 Digital Video Effects 3
+ FMT151 TV and New Media Production 3


## Motion Graphics Emphasis

ART116 Life Drawing I 3

+ ART174 Electronic Color Principles 1
+ ART/MMT185 3D Modeling for Animation I 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
+ ART273AC Special Topics: Multimedia Arts 3
+ ART287 3D Character Animation 3
+ FMP215 Digital Video Effects 3
General Education Requirements
Credits: 22-28


## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area

Recommended for students planning to transfer to a four-year university:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

## Credits: 10

## Humanities, Arts and Design (3 credits)

ARH101 Prehistoric through Gothic Art (3) OR
ARH102 Renaissance through Contemporary Art (3) OR
ARH115 History of Photography (3) OR
HUM/THF205 Introduction to Cinema (3) 3

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Audio Production Technologies

Major Code: 3024
Total Credits: 62-71

Description: The Associate in Applied Science (AAS) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge and experience essential in the field of audio production. An embedded Certificate of Completion (CCL) in Audio Production Technologies is also available.

Program Notes: Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 31-34

In addition to the required course work, students must consult with a program advisor to select nine credits within the Restricted Electives area.

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
MTC101 Introduction to Music Theory 3
MTC191 Electronic Music I 3

+ MTC192 Electronic Music II 3
MUC109 Music Business: Content Creation and Copyright 3
MUC110 Music Business: Marketing and Monetization (3) OR
MUC145 Recording Studio Business Operations (2) 2-3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC194 Audio Mixing Techniques 3
MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3
+ MUC196 Studio Music Recording II (3) OR
+ MUC196AA Studio Music Recording II (3) 3
MUC197 Live Sound Reinforcement I 3
+ MUC297AA Audio Production Internship (1) OR
+ MUC296WA Cooperative Education (1) OR
+ MUC298AA Special Projects (1) 1


## Restricted Electives

Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor.

NOTE: at least one (1) of the following courses must be
completed: MTC291, MUC289, MUC292, or MUC295.

+ MTC193 Computer-Based Sound Synthesis 3
+ MTC291 Electronic Music III 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC122 Sound Design I 3
+ MUC198 Live Sound Reinforcement II 3
+ MUC222 Sound Design II 3
+ MUC289 Live Sound Reinforcement III 3
+ MUC292 Sound Design III 3
+ MUC295 Studio Music Recording III 3
General Education Requirements
Credits: 22-28


## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM110 is recommended)
Critical Reading (0-3 credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area

Students who intend to transfer must take:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education courses from the Humanities, Arts and Design area
(MHL140 or MHL145 or MHL153 are recommended)

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area
(PSY101 is recommended)

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Automotive Service

Major Code: 3180
Total Credits: 63-70

Description: The Associate in Applied Science (AAS) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning
systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1-A8).

See program advisor for additional certificate offerings.
Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 42-44
ASE101 Introduction to Automotive 2
Students are required to take (ASE102++ AND ASE111++) OR ASE113++ for a total of four (4) credits.

ASE102 Automotive Express Service (2) OR
ASE102AU Automotive Express Service (2)
AND
ASE111 Engine Diagnosis and Inspection (2) OR
ASE111AU Engine Diagnosis and Inspection (2) 4
OR
ASE113 Engine Repair (4) OR
ASE113AU Engine Repair (4) 4
ASE121 Automatic Transmission and Transaxle (4) OR
ASE121AU Automatic Transmission and Transaxle (4) 4
ASE131 Manual Drive Trains and Axles (4) OR
ASE131AU Manual Drive Trains and Axles (4) 4
ASE141 Steering, Suspension and Pre-Alignment (2) OR
ASE141AU Steering, Suspension and Pre-Alignment (2) 2
ASE151 Introduction to Brake Systems (2) OR
ASE151AU Introduction to Brake Systems (2) 2
ASE161 Basic Automotive Electrical/Electronics (2) OR
ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2

ASE171 Automotive Heating, Ventilation and Air Conditioning Systems (3) OR
ASE171AU Automotive Heating, Ventilation and Air
Conditioning Systems (3) 3
ASE181 Introduction to Engine Performance (2) OR
ASE181AU Introduction to Engine Performance (2) 2

+ ASE182 Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) OR
+ ASE182AU Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) 2

```
+ ASE241 Advanced Steering, Suspension and Alignment (2) OR
+ ASE241AU Advanced Steering, Suspension and Alignment (2) }
+ ASE251 Advanced Brake Systems (2) OR
+ ASE251AU Advanced Brake Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) }
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2
+ ASE281 Computerized Automotive Engine Control Systems (2)
OR
+ ASE281AU Computerized Automotive Engine Control Systems
(2)}
+ ASE282 Advanced Engine Performance Diagnosis (2) OR
+ ASE282AU Advanced Engine Performance Diagnosis (2) OR
+ ASE263 Hybrid Vehicle Overview (2) 2
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
```


## Restricted Electives

```
Credits: 3
ASE264 Advanced Automotive Electrical Systems 3
ASE265 Introduction to Electric Drive Vehicles 3
ASE266 Electric/Hybrid High Voltage Batteries 1
ASE267 Electric Vehicle Operation and Diagnosis 3
ASE290++ Automotive Service Internship (any suffixed courses)
(1-3) 1-3
ASE296++ Cooperative Education (any suffixed courses) (1-3) 1-3
ASE298++ Special Projects (any suffixed courses) (1-3) 1-3
DIE104 Electrical for Diesel Engines 13
DIE106 Mobile Hydraulics and Pneumatics 3
DIE108 Heavy Duty Diesel Power Trains 3
DIE112 General Diesel Engines 3
GTC/MIT/OSH106 Industrial Safety 2
WLD101 Introduction to Welding 3
```


## General Education Requirements

```
Credits: 18-23
```


## GENERAL EDUCATION CORE

```
Credits: 12-17
```


## First-Year Composition (6 credits)

```
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
```

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits)

GTC107 Technical Mathematics I (3) OR

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Any approved general education course in the Mathematical Applications [MA] area (3-5) 3-5


## GENERAL EDUCATION DISTRIBUTION

Credits: 6

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities and Fine Arts area

Social-Behavioral Sciences (3 credits)
Any approved general education course from the Social and Behavioral Sciences area

## Natural Sciences (0 credits)

Area Waived

## Behavioral Sciences

Major Code: 3067
Total Credits: 63-71
Description: The Associate in Applied Science (AAS) in Behavioral Sciences is designed to provide students with a comprehensive study of human behavior and prepare them to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, addictions and substance use, trauma, developmental disabilities, comorbid medical conditions, and challenging behaviors. The program includes courses designed to provide students with the skills necessary to deliver specialized and comprehensive behavioral health and social services. This program is university-transferable and provides preparation for industry certifications and supervised field experience.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Students should select restricted electives in one (1) of the following specializations:

- Trauma and Crisis Stabilization
- Infant and Early Childhood Mental Health
- Addiction and Substance Use Disorders
- Developmental Disabilities
- Criminal Justice and Forensic Science
- Mental Health


## Required Courses

## Credits: 35-37

BHS150 Introduction to Behavioral Health and Social Services 3
BHS155 Professional Resiliency and Well-Being 3
BHS160 Ethical, Legal and Professional Issues in Behavioral Health and Social Service 3
BHS165 Applied Therapeutic Communication Skills 3
BHS170 Case Management and Clinical Documentation 3
BHS180 Child, Family, and Adult Advocacy 3
BHS175 Introduction to Trauma-Informed Care and Trauma-
Focused Caregiving 3
BHS185 Cultural Competence in Behavioral Health 3

+ BHS190 Professional Portfolio: Supervised Practice in Behavioral Health and Social Services 1
BHS205 Therapeutic Models and Interventions in Individual Therapy 3
BHS210 Addictions, Substance Use Disorders, and Relapse Prevention 3
BHS215 Therapeutic Models and Intervention in Group Therapy 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3


## Restricted Electives

Credits: 6

Students must choose six (6) credits from one of the following specializations:

## Specialization 1: Trauma and Crisis Stabilization

BHS230 Crisis and Trauma Stabilization 3
BHS235 Emergency Mental Health Crisis Response and Recovery 3

Specialization 2: Infant and Early Childhood Mental Health
BHS275 Infant and Early Childhood Mental Health (3) OR CFS177 Parent-Child Interaction (3) 3
BHS272 Child and Adolescent Mental Health and Interventions 3 CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3

+ EED210 Creative and Cognitive Play 3
(If EED210 is selected, CFS235 will need to be selected unless another requisite option has been met)


## Specialization 3: Addiction and Substance Use Disorders

 ASD110 Pharmacology of Substances of Abuse and Dependency 3ASD245 Co-Occurring Disorders (2) AND
ASD120 Professional Ethics in Addictions and Substance Use Disorders (1) OR
ASD145 AIDS and Addiction (1) 3
BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3

## Specialization 4: Developmental Disabilities

BHS271 Developmental Disabilities Assistance Training 3

+ PSY241 Understanding and Changing Behavior 3
+ PSY243 The Psychology of Developmental Disabilities 3

Specialization 5: Criminal Justice and Forensic Science

+ PSY267 Introduction to Forensic Psychology 3

AJS101 Introduction to Criminal Justice (3) OR
AJS200 Current Issues In Criminal Justice (3) OR
AJS225 Criminology (3) 3

## Specialization 6: Mental Health

BHS230 Crisis and Trauma Stabilization (3) OR
BHS235 Emergency Mental Health Crisis Response and Recovery (3) 3

BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3
BHS255 Health and Wellness Coaching in Professional Resiliency 3
BHS262 Behavioral Health Service Techniques for the Elderly 3
BHS266 Violence and Abuse Services 3
BHS269 Grief Support Techniques 3
BHS271 Developmental Disabilities Assistance Training 3
BHS272 Child and Adolescent Mental Health and Interventions
3
BHS275 Infant and Early Childhood Mental Health 3
CPD180 Human Resilience: Cognitive, Emotional, and
Behavioral Applications 3

+ PSY266 Psychological Disorders 3

General Education Requirements
Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
(ENG102 or ENG108 recommended for students considering pursuing a bachelor`s degree at an Arizona university)


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Critical Reading ( $0-3$ credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT112 Mathematical Concepts and Applications (3) OR Satisfactory completion of a higher level mathematics course (3-6) 3-6
(MAT142 or MAT151 recommended for those planning to transfer)


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities,
Arts and Design area 3
(HCR210 recommended)

## Social-Behavioral Sciences (3 credits)

PSY101 Introduction to Psychology 3

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area 4

Recommended:

+ PSY275 Biopsychology (suggested) (4) OR
+ BIO156 Introductory Biology for Allied Health (4) OR
BIO160 Introduction to Human Anatomy and Physiology (4) OR
FON241 Principles of Human Nutrition (3) AND
FON241LL Principles of Human Nutrition Laboratory (1) 4


## Biotechnology and Molecular Biosciences

Major Code: 3034
Total Credits: 62-73
Description: The Associate in Applied Science (AAS) in Biotechnology and Molecular Biosciences program is designed to give entry-level laboratory technicians skills for application in academic, industrial and commercial research institutions. The exposure to an academic environment that simulates the contemporary biotechnological workplace, inclusive of analytical, critical thinking and problem-solving skills, provides the opportunity to form a strong technical foundation typically sought by employers. The successful completion of the program may also provide the educational background for those wishing to pursue a career in the pharmaceutical industry, clinical laboratory medicine, forensics or environmental testing laboratories and/or a foundation for a student wishing to continue their education at a university.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 45-48

ABS/BIO173 Basic Instrumentation and Lab Math 1 ABS/BIO175 Research Methods in Biology 1

[^11]```
+ BIO208 Nucleic Acid Methods 3
+ BIO209 Biomolecular Separation 3
+ BIO210 Advanced Lab Instrumentation 3
BIO211AA Biotechnology Seminar: Biomedical Applications (1)
OR
+ BIO211AB Biotechnology Seminar: Laboratory Protocol (1) OR
BIO211AE Biotechnology Seminar: Business and Regulatory
Issues (1) }
```

FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select four (4) credits of internship/research from the following. BIO215AB and BIO295AB may be repeated for credit.

+ BIO215AB Biotechnology Internship 2
+ BIO295AB Independent Research in Biology 2
+ BIO/CSC283 Bioinformatics and Scientific Computing 3
+ CHM150 General Chemistry I (4) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM151 General Chemistry I (3) AND
+ CHM151LL General Chemistry I Laboratory (1)
OR
+ CHM150AA General Chemistry I (5)
OR
+ CHM151AA General Chemistry I (4) 4-5
+ CHM152 General Chemistry II 3
+ CHM152LL General Chemistry II Laboratory 1
+ CHM235 General Organic Chemistry I 3
+ CHM235LL General Organic Chemistry I Laboratory 1
+ CHM236 General Organic Chemistry IIA 3
+ CHM236LL General Organic Chemistry IIA Laboratory 1


## General Education Requirements

Credits: 18-24

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM230 recommended)


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) OR Satisfactory completion of higher level Mathematics course (36) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 6

## Humanities, Arts and Design (3 credits)

PHI105 Introduction to Ethics (3) OR
PHI213 Medical and Bio-Ethics (3) OR
PHI216 Environmental Ethics (3) 3

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the SocialBehavioral Sciences area

## Natural Sciences ( 0 credits)

Met by BIO181 OR BIO181XT in Required Courses area

## Digital Media Arts

Major Code: 3567
Total Credits: 66-74 credits
Description: The Associate in Applied Science (AAS) in Digital Media Arts is designed for the student who wishes to develop skills in the area of graphic design, imaging, photography, animation, time-based, interactivity, and media production. The program emphasizes critical thinking, written communication, and teamwork by challenging students to develop their own design method, production workflow, and conceptual aesthetic. The program provides students with a broad understanding of media design and its place in society as a means to communicate. It allows for the development of an individual's personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Upon completion of the program, students will have compiled a professional portfolio. Employment opportunities include, but are not limited to, graphic design, animation, web design, and video production. Based on course selections, students may also pursue transfer opportunities.

Program Notes: Students must earn a grade of C or better in all courses within the program.

```
Required Courses
Credits: 32-34
+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I }
ART100 Introduction to Digital Arts 1
ART111 Drawing I (3) OR
ART116 Life Drawing I (3) }
ART142 Introduction to Digital Photography 3
+ ART181 Graphic Design I }
+ ADA/ART/MMT184 Digital Animation I 3
+ ART200 Animation and Interactivity }
ADA/ART248 Design Self Promotion 3
+ ART280AC Digital Media Arts and Design Capstone (3) OR
+ ART297++ Computer Graphic Design Internship (3) }
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
JRN213 Writing for Online 3
Restricted Electives
Credits: }1
Complete 12 credits from the following courses:
+ ART182 Graphic Design II 3
+ ART/MMT185 3D Modeling for Animation I }
+ ART210 Design Tools for Imagery, Production, and Publishing 3
+ ART240 Cinematography and Directing for 2D/3D Animation 3
CIS133DA Internet/Web Development Level I 3
FMP108 Video Production 3
+ FMP215 Digital Video Effects 3
MTC191 Electronic Music I 3
MUC122 Sound Design I }
General Education Requirements
Credits: 22-28
GENERAL EDUCATION CORE
Credits: 12-18
First-Year Composition (6 credits)
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) }
```


## Oral Communication (3 credits)

```
COM100 Introduction to Human Communication (3) OR COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
```


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course from the Mathematics area

Recommended for students planning to transfer to a four-year university:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6
GENERAL EDUCATION DISTRIBUTION
Credits: 10
Humanities, Arts and Design (3 credits)
ARH102 Renaissance through Contemporary Art (3) OR
ARH110 History of Graphic Design (3) OR
HUM/THF205 Introduction to Cinema (3) 3
(Students who intend to transfer should choose either ARH102 or HUM/THF205 to fulfill the [HU] requirement for transfer)


## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area
Natural Sciences (4 credits)
Any approved general education course from the Natural Sciences area

## Early Childhood Education

Major Code: 3186
Total Credits: 61-74
Description: The Associate in Applied Science (AAS) in Early Childhood Education (ECE) program is designed to prepare individuals for employment as early childhood professionals in a variety of educational settings. The AAS program includes courses based on current ECE theory and practice as well as general education classes to broaden a student's base of knowledge. Certificates of Completion are also available.

Program Notes: Students must earn a grade of C or better for all courses within the program.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

## Required Courses

Credits: 30-37

CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age
Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3
EED225 Language and Literacy in the Context of Culture and Relationships 3

CFS101AH Art Activities for the Young Child (1) AND
ECH281 Movement/Music for the Young Child (1) OR

+ EED210 Creative and Cognitive Play (3) OR
ECH128 Early Learning: Play and the Arts (3) 2-3
EED200 Foundations of Early Childhood Education 3
CFS/ECH271 Arranging the Environment (1) AND
CFS282 Mainstreaming The Young Child with A Disability (1)
AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3
CFS123 Health and Nutrition In Early Childhood Settings (1) AND
CFS125 Safety in Early Childhood Settings (1) AND
ECH280 Food Experiences With Young Children (1) OR
EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight (3) OR
EDU222 Introduction to the Exceptional Learner (3) 3
+ CFS/ECH269 Child Care Seminar (1) AND
CFS/ECH287 Professional Development in Early Childhood
Education (1) OR
+ EED255 Portfolio Development and Writing for the Profession
(3) 2-3
+ CFS/ECH284AB Early Childhood Teaching Internship (3) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) AND
+ EED261 Early Childhood Preschool Internship (1) OR
+ CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3
ECH272 Science for the Young Child (1) AND
CFS/ECH273 Math for the Young Child (1) AND
CFS/ECH275 Literacy Development and the Young Child (1) AND
ECH279 Early Childhood Curriculum Development (1) OR
+ EED278 Early Learning: Curriculum and Instruction Birth/Preschool (3) 3-4

ECH140 Learning Made Visible Through Documentation (1) AND ECH270 Observing Young Children (1) OR

+ EED280 Standards, Observation and Assessment of
Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3

FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

## Credits: 9-12

Students must select 9-12 credits from the following and must complete a minimum of 60 credits for the degree. Students are encouraged to consult with a faculty advisor or student services analyst to identify the requirements for their desired academic and professional goals:

CFS+++ Any CFS Child/Family Studies course(s)
ECH+++ Any ECH Early Childhood Education course(s)
EDU+++ Any EDU Education course(s)
EED+++ Any EED Early Education course(s)
FCS+++ Any FCS Family and Consumer Science course(s)
ITD+++ Any ITD Infant/Toddler Development course(s)

## General Education Requirements

Credits: 19-25

## general education core

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

Any approved general education course from the Oral Communication area
(COM225 is recommended for students who wish to transfer to the BAE at ASU)

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of a higher-level mathematics course (3-6) 3-6

Note: MAT14+ College Mathematics or any approved general education course in the Mathematical Application [MA] area may be required for students intending to transfer to a bachelor's degree program.

## GENERAL EDUCATION DISTRIBUTION

Credits: 7

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area
(EDU/ENH291 or EDU/HUM/STO292 recommended)

## Social-Behavioral Sciences ( 0 credits)

Fulfilled by EDU222 or EED222 in Required Courses area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Exercise Science: Health, Fitness, and Sports Performance

Major Code: 3059
Total Credits: 62-74.5

Description: The Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance prepares students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM) and the American Council on Exercise (ACE) personal trainer certifications. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the Certificate of Completion (CCL) in Personal Training coupled with advanced hands-on courses required for the CCL in Personal Training: Advanced that foster the development of critical thinking, leadership, and communication skills important for developing, implementing and leading exercise programs. This curriculum also provides a good foundation for transfer to a four-year bachelor program. Students who complete this AAS also qualify for the CCL in Personal Training and Personal Training: Advanced. An Associate in Arts (AA), Emphasis in Exercise Science is also available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of C or better required for all courses within the program.

## Required Courses

Credits: 46-52.5

+ BIO181++ General Biology (Majors) I (4) OR
One (1) year of high school biology (0) 0-4
BIO160 Introduction to Human Anatomy and Physiology (4) OR
+ BIO201++ Human Anatomy and Physiology I (4) 4
EMT101 Basic Life Support/Cardiopulmonary Resuscitation
(CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3
+ EXS246 Advanced Exercise Testing 2
+ EXS255 Program Design: Muscular Fitness and Performance 3
+ EXS257 Program Design: Cardiorespiratory Fitness 3

Student must complete three (3) credits from the following EXS internship course options:

+ EXS270 Exercise Science Internship (3) OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS270AB Exercise Science Internship (2)
OR
+ EXS275 Sport Science Internship (3) OR
+ EXS275AA Sport Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AB Exercise Science Internship (2) AND
+ EXS275AA Sport Science Internship (1) 3
+ EXS290 Introduction to Evidence Based Practice 3

FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3

HES100 Healthful Living 3
HES210 Cultural Aspects of Health and Illness 3
PED101ST Strength Training 1

PED101BC Boot Camp (1) OR
PED101BS Body Sculpting (1) OR
PED101CY Cycling - Indoor (1) OR
PED101GF Group Fitness/Aerobics (1) OR
PED101KB Kickboxing (1) OR
PED101LD Latin Dancing (1) OR
PED101PC Physical Conditioning (1) OR
PED101PS Pilates (1) OR
PED101SR Stretch and Relaxation (1) OR
PED101TC Tai Chi (1) OR
PED101TX Suspension Training (1) OR
PED101YG Gentle Yoga (1) OR
PED101YH Hatha Yoga (1) OR
PED101YO Yoga (1) OR
PED101YP Power Yoga (1) OR
PED101YR Restorative Yoga (1) OR
PED101ZU Zumba Fitness (1) 1
PSY101 Introduction to Psychology 3

## Restricted Electives

## Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course 1
FON+++++ Any FON Food and Nutrition course 1
HES+++++ Any HES Health Science course 1
PED+++++ Any PED Physical Education course 1
IFS110 Critical Research for College Success 1

## General Education Requirements

Credits: 15-21

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101++ College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3

```
Mathematics (3-6 credits)
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6)
OR
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) OR
Higher level course in the Mathematical Applications [MA] area
(3-6) 3-6
```

GENERAL EDUCATION DISTRIBUTION
Credits: 3

## Humanities, Arts and Design (3 credits)

Any approved general education course from the Humanities, Arts and Design area

Social-Behavioral Sciences (0 credits)
Met by HES100 in Required Courses

## Natural Sciences (0 credits)

Met by BIO160 or BIO201++ in Required Courses

## General Business

Major Code: 3148
Total Credits: 62-69
Description: The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student's business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. A Certificate of Completion (CCL) in General Business is available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

Required Courses
Credits: 22-24
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
GBS120 Workplace Communication Skills (3) OR

+ GBS233 Business Communication (3) 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3
MGT175 Business Organization and Management (3) OR
MGT251 Human Relations in Business (3) 3
MKT271 Principles of Marketing 3


## Restricted Electives

Credits: 18
Students should select 18 credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

## ACC+++ Any ACC Accounting course(s)

CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++ Any EPS Entrepreneurial Studies course(s)
GBS+++ Any GBS General Business course(s)
IBS+++ Any IBS International Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
REA+++ Any REA Real Estate course(s)
SBS+++ Any SBS Small Business Management course(s)

General Education Requirements
Credits: 22-27

## GENERAL EDUCATION CORE

## Credits: 12-17

First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3)
COM110 Interpersonal Communication (3)

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent by assessment (0) 0-3


## Mathematics ( $3-5$ credits)

Any approved general education course from the Mathematics area

## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design (3 credits)

Any approved general education course in the Humanities, Arts and Design area

Social-Behavioral Sciences ( 3 credits)
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences area

## Law Enforcement Training

## Major Code: 3188

Total Credits: 63-71
Description: The Associate in Applied Science (AAS) in Law Enforcement Training is designed to provide students with up-to-date industry specific training that will enhance their professional opportunities. Courses are also designed to teach students how to handle the challenges of the law enforcement profession. A Certificate of Completion (CCL) in Law Enforcement Training Academy is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Admission Criteria: Must meet AzPOST minimum requirements for a law enforcement officer and meet any physical requirements by the Academy Director.

## Required Courses

Credits: 41-43
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS113 Criminal Justice Crime Control Policies and Practices 3
AJS151 Firearms I 1

+ AJS153 Firearms II/Handguns 1
AJS154 Firearms III/Long Weapons 1
AJS162 Domestic Violence 3
AJS201 Rules of Evidence 3
AJS205 Effective Communication and Report Writing in Criminal Justice 3
AJS210 Constitutional Law 3
AJS215 Criminalistics: Physical Evidence 3
AJS230 The Police Function 3
AJS260 Procedural Criminal Law 3
AJS270 Community Relations 3
AJS275 Criminal Investigation I 3
AJS290BN Courtroom Testimony Seminar 1
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3


## General Education Requirements

Credits: 22-28

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Oral Communication ( 3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
(COM110 or COM230 recommended)
Critical Reading (0-3 credits)
+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Any approved general education course in the Mathematics area

Recommend for transfer:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Any higher approved general education course in the Mathematical Applications [MA] area (3-6)


## GENERAL EDUCATION DISTRIBUTION

Credits: 10

## Humanities, Arts and Design ( 3 credits)

Any approved general education course in the Humanities, Arts and Design area
(AJS123 recommended)

## Social-Behavioral Sciences (3 credits)

Any approved general education course in the Social-Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences area

## Nursing

Major Code: 3812
Total Credits: 62-75
Description: The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; (404.975.5000); email: info@acennursing.org.

Program Offerings: This program is offered at the following sites:

- Chandler-Gilbert Community College
- Estrella Mountain Community College
- GateWay Community College
- Glendale Community College
- Mesa Community College
- Paradise Valley Community College
- Phoenix College
- Scottsdale Community College

Waiver of Licensure/Certification Guarantee: Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act:

Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration: It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

## Health and Safety Requirements for the MaricopaNursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background

Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.

University Transfer Students: Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## REGISTERED NURSE PATHWAY

## Associate in Applied Science Degree in Nursing Program

 The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.Program Notes: Students must earn a grade of C or better in all courses required within the program.

Students must complete the following general education and introductory courses with a 2.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum. BIO156 or BIO181, BIO201, CHM130 and CHM130LL, CHM130AA, ENG101 or ENG107, MAT140 or MAT141 or MAT142.

Course Fee Information: Please see class schedule for information regarding course fees.

MaricopaNursing is aligned with Nurse of the Future Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria: High school diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the 'Declaration of High School Graduation or GED completion.' In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required. There are limited spaces available in the Nursing program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

A passing score on a nursing program admission test is required to complete an application. Successful completion of a nurse assistant course (NCE150 or NUR158 or equivalent as determined by the Nursing Director or designee) or current active AZ certification or licensure as a Nurse Assistant in good standing is required to complete an application.

Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3. The final placement decision rests with the Nursing Program Chair at the college to which the student is accepted.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate or license as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

## Required Courses

Credits: 40-48

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) OR
One year of high school biology (0) 0-4
+ BIO201 Human Anatomy and Physiology I 4
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) OR
+ CHM130AA Fundamental Chemistry with Lab (4) OR
One year of high school chemistry (0) 0-4
+ NUR152 Nursing Theory and Science I 9
+ NUR172 Nursing Theory and Science II 9
+ NUR252 Nursing Theory and Science III 9
+ NUR283 Nursing Theory and Science IV 9
General Education Requirements
Credits: 22-27
GENERAL EDUCATION CORE
Credits: 9-14


## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (0 credits)

Area Waived

## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-5 credits) <br> + MAT140 College Mathematics (5) OR <br> + MAT141 College Mathematics (4) OR <br> + MAT142 College Mathematics (3) OR <br> Satisfactory completion of higher level math course (3-5) 3-5

## GENERAL EDUCATION DISTRIBUTION

Credits: 13

## Humanities, Arts and Design (2 credits)

Any approved general education course in the Humanities, Arts and Design area

Social-Behavioral Sciences (3 credits)
PSY101 Introduction to Psychology 3

## Natural Sciences (8 credits)

+ BIO202 Human Anatomy and Physiology II (4) AND
+ BIO205 Microbiology (4) 8


## Photography

Major Code: 3195
Total Credits: 61-67
Description: The Associate in Applied Science (AAS) in Photography program is designed for the student who wishes to pursue a career in photography, either commercial or fine arts. Students will study digital and traditional film-based (darkroom) media, content and image selection, and the theory and practice of visual communication.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

There will be costs for supplies and equipment in this program.

## Required Courses

Credits: 27-31

ARH101 Prehistoric Through Gothic Art (3) OR
ARH102 Renaissance Through Contemporary Art (3) 3
ARH115 History of Photography 3
ART100 Introduction to Digital Arts 1
ART112 Two-Dimensional Design 3
ART113 Color 3

ART131 Photography I 3

+ ART132 Photography II 3
ART142 Introduction to Digital Photography 3
+ ART143 Intermediate Digital Photography 3
ART255 Art Marketing (3) OR
ART255AB The Portfolio (1) 1-3
FYE101 Introduction to College, Career and Personal Success (1)
OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3


## Restricted Electives

Credits: 8-20
Complete all courses in the specialization below that best aligns with your academic and professional goals.

## Specialization 1: Commercial Photography Credits: 13-20

+ ART138 Commercial Photography I 3
+ ART139 Commercial Photography II 3
+ ART140 Portrait Photography (3) OR
+ ART237 Fashion Photography (3) 3

SBS200 Small Business Operations 2
MKT110 Marketing and Social Networking (3) OR
MKT263 Advertising Principles (3) OR
MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2) 2-3

In consultation with advisor or program coordinator, choose up to six (6) credits of coursework from the following list to best fulfill goals and complete the minimum total program credits required for this degree.

+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I 3
ART111 Drawing I 3
ART116 Life Drawing I 3
ART137 Alternative Photographic Processes 3
+ ART178 Digital Arts Studies 3
+ ART181 Graphic Design I 3
+ ART234 Color Photography I 3
+ ART270 Digital Photographic Imaging II 3
+ ART290AC Studio Art 3
+ ART290EC Studio Art: Photography 3
+ ART290MC Studio Art: Digital Photography 3
+ ART295DA Art Workshop/Seminar: Photography 1
+ ART295DB Art Workshop/Seminar: Photography 2
+ ART295DC Art Workshop/Seminar: Photography 3
+ ART297AA Commercial Art Internship (1) OR
+ ART297AB Commercial Art Internship (2) 1-2
FMP108 Video Production 3


## Specialization 2: Fine Art Photography

Credits: 8-15

+ ART133 Photography III 3
ART137 Alternative Photographic Processes 3

Select 2-9 credits from the following:

+ ADA/ART169 2D Media Design 3
+ ADA/ART177 Digital Photographic Imaging I 3
ART111 Drawing I 3
ART116 Life Drawing I 3
+ ART134 Photography IV 3
+ ART178 Digital Arts Studies 3
+ ART234 Color Photography I 3
+ ART250 Introduction to Printmaking 3
+ ART270 Digital Photographic Imaging II 3
+ ART274 Digital Photographic Imaging III 3
+ ART290AC Studio Art 3
+ ART290EC Studio Art: Photography 3
+ ART290MC Studio Art: Digital Photography 3
+ ART295DA Art Workshop/Seminar: Photography 1
+ ART295DB Art Workshop/Seminar: Photography 2
+ ART295DC Art Workshop/Seminar: Photography 3
ART297AA Commercial Art Internship 1
SBS200 Small Business Operations 2
SBS204 Small Business Marketing and Advertising 2


## General Electives

Credits: 0-7
Select courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with the Program Director or an Academic Advisor.

Recommend that students interested in transferring to a fouryear institution to earn a bachelor's degree take courses that fulfill any unmet Arizona General Education Curriculum (AGEC) requirements.

## General Education Requirements

Credits: 19-25

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6


## Oral Communication (3 credits)

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading (0-3 credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) OR
Any approved general education course in the Mathematical
Applications [MA] area (3-6) 3-6


## GENERAL EDUCATION DISTRIBUTION

Credits: 7

## Humanities, Arts and Design (0 credits)

Met by ARH101 OR ARH102 OR ARH115 OR ART131 in Required Courses

## Social-Behavioral Sciences ( 3 credits)

Any approved general education courses in the Social-
Behavioral Sciences [SB] area

## Natural Sciences (4 credits)

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area

## Video Game Production

Major Code: 3890
Total Credits: 62-79
Description: The Associate in Applied Science (AAS) in Video Game Production provides students with the essential skill sets needed to plan, design, and produce video games. The program features interdisciplinary coursework and related studies to build a strong foundation bridging the art and science of video game production. The Associate in Applied Science in Video Game Production`s curriculum brings together business concepts, game technology, game narrative, music, sound design, and animation to prepare students for entry-level careers as a Level Designer, Environment Artist, Production Artist, Character Modeler, Character Animator, Game Designer, Game Developer, Mobile Game Developer, Commercial Artist, Game Writer, Composer and/or Sound Designer. Embedded Certificates of Completion (CCL) are available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Narrative and Video Game Production: Scripting and Coding.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Students interested in transferring should meet with an Academic, Faculty, or Program Director.

GST201 Game Studies is recommended for students who intend to transfer to Arizona State University.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 29-31
In addition to the required course work, students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

+ ADA/ART177 Digital Photographic Imaging I (3) OR CIS120DF Introduction to Adobe Photoshop (3) 3

ART100 Introduction to Digital Arts 1
ART/MMT185 3D Modeling for Animation I (3) OR
CIS130DA 3D Studio Max: Modeling (3) 3
Note: ART/MMT185 is recommended for students interested in the Game Art Emphasis and CIS130DA is recommended for students interested in the Coding and Scripting Emphasis

CIS105 Survey of Computer Information Systems 3

+ CIS107 The Electronic Game Industry 3
+ CIS151 Computer Game Development Level I 3
+ CIS251 Computer Game Development Level II 3
CRW176 Writing Narrative for Video Games 3
FYE101 Introduction to College, Career and Personal Success (1) OR
FYE103 Exploration of College, Career and Personal Success (3) 1-3
+ GST202 Games, Culture and Aesthetics 3
MUC122 Sound Design I 3


## Restricted Electives

Credits: 14-23
Students must select one (1) of the following four (4)
specializations.

## Specialization 1: Game Art

Credits: 23

+ ADA/ART/MMT184 Digital Animation I 3
ART116 Life Drawing 3
ART/COM/STO150 Digital Storytelling 3
+ ART200 Animation and Interactivity 3
+ ART240 Cinematography and Directing for 2D/3D Animation (3) OR
+ CIS230DB 3D Studio Max: Lighting and Rendering (3) 3
+ ART/MMT285 3D Modeling and Animation II (3) OR
+ CIS130DB 3D Studio Max: Animation (3) 3
+ ART287 3D Character Animation 3
+ ART298AB Special Projects 2


## Specialization 2: Game Narrative

Credits: 17

ART/COM/STO150 Digital Storytelling 3
CRW160 Introduction to Writing Poetry 3
CRW170 Introduction to Writing Fiction 3
CRW190 Introduction to Screenwriting 3

+ CRW270 Intermediate Fiction Writing 3
+ CRW298AB Special Projects 2
Specialization 3: Coding and Scripting Emphasis
Credits: 14
CIS120DC Introduction to Adobe Animate 3
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS156 Python Programming: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS298AB Special Projects 2
Specialization 4: Audio and Music
Credits: 17-18
MTC191 Electronic Music I (3) OR
MUC194 Audio Mixing Techniques (3) 3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MTC192 Electronic Music II (3) OR
+ MUC196 Studio Recording II (3) 3

MUC195 Studio Music Recording I 3

+ MUC222 Sound Design II 3
+ MUC292 Sound Design III (3) OR
+ MUC298AB Special Projects (2) 2-3


## General Education Requirements

Credits: 19-25

## GENERAL EDUCATION CORE

Credits: 12-18

## First-Year Composition (6 credits)

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication (3 credits)
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3


## Critical Reading ( $0-3$ credits)

+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3


## Mathematics (3-6 credits)

Recommended for students who do not intend to transfer:

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
MAT126 Intermediate Algebra with Review (6) OR
Satisfactory completion of a higher level mathematics course (3-6) 3-6

Recommended for students who intend to transfer to ASU in the Game Arts, Narrative for Games, or Audio and Music emphases:

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
MAT145 College Mathematics with Review (5) OR
MAT146 College Mathematics with Review (6) 3-6
Recommended for students who intend to transfer to ASU in the Scripting and Coding emphasis:
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) OR
+ MAT155 College Algebra/Functions with Review (5) OR
+ MAT156 College Algebra/Functions with Review (6) 3-6


## GENERAL EDUCATION DISTRIBUTION

## Credits: 7

Humanities, Arts and Design ( 0 credits)
Met by GST202 in Required Courses

## Social-Behavioral Sciences (3 credits)

Any approved general education course from the Social-
Behavioral Sciences area

## Natural Sciences (4 credits)

Any approved general education course from the Natural Sciences area

## Appendix F - Certificates with Summer 2023 Final Term

## Advanced Behavioral Health Sciences

Major Code: 5521
Total Credits: 40-43

Description: The Certificate of Completion (CCL) in Advanced Behavioral Health Sciences is designed to provide students with a comprehensive study of human behavior and prepare them to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, addictions and substance use, trauma, developmental disabilities, co-morbid medical conditions, and challenging behaviors. The program includes courses designed to provide students with the skills necessary to deliver specialized and comprehensive behavioral health and social services. This program also provides university transfer options in addition to preparation for industry certifications and supervised field experience.

Program Notes: Students must earn a grade of C or better in all courses within the program.

Students should select courses in one (1) of the following specializations:

- Trauma and Crisis Stabilization
- Infant and Early Childhood Mental Health
- Addiction and Substance Use Disorders
- Developmental Disabilities
- Criminal Justice and Forensic Science
- Mental Health


## Required Courses

Credits: 34
Certificate of Completion (CCL) in Basic Behavioral Health Sciences (5522) 18

AND
BHS175 Introduction to Trauma-Informed Care and Trauma-
Focused Caregiving 3
BHS185 Cultural Competence in Behavioral Health 3

+ BHS190 Professional Portfolio: Supervised Practice in Behavioral Health and Social Services 1
BHS205 Therapeutic Models and Interventions in Individual Therapy 3
BHS210 Addictions, Substance Use Disorders, and Relapse Prevention 3
BHS215 Therapeutic Models and Intervention in Group Therapy 3


## Restricted Electives

Credits: 6
Student must choose six (6) credits from one (1) of the following specializations:

Specialization 1: Trauma and Crisis Stabilization
BHS230 Crisis and Trauma Stabilization 3

BHS235 Emergency Mental Health Crisis Response and Recovery 3

Specialization 2: Infant and Early Childhood Mental Health BHS275 Infant and Early Childhood Mental Health (3) OR CFS177 Parent-Child Interaction (3) 3

BHS272 Child and Adolescent Mental Health and Interventions 3
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3

+ EED210 Creative and Cognitive Play 3
(If EED210 is selected, CFS235 will need to be selected (unless another requisite option has been met.)


## Specialization 3: Addiction and Substance Use Disorders

 ASD110 Pharmacology of Substances of Abuse and Dependency 3ASD245 Co-Occurring Disorders (2) AND
ASD120 Professional Ethics in Addictions and Substance Use Disorders (1) OR
ASD145 AIDS and Addiction (1) 3
BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3

## Specialization 4: Developmental Disabilities

BHS271 Developmental Disabilities Assistance Training 3

+ PSY241 Understanding and Changing Behavior 3
+ PSY243 The Psychology of Developmental Disabilities 3
Specialization 5: Criminal Justice and Forensic Science
+ PSY267 Introduction to Forensic Psychology 3
AJS101 Introduction to Criminal Justice (3) OR
AJS200 Current Issues In Criminal Justice (3) OR
AJS225 Criminology (3) 3
Specialization 6: Mental Health
BHS230 Crisis and Trauma Stabilization (3) OR
BHS235 Emergency Mental Health Crisis Response and Recovery (3) 3

BHS251 Harm Reduction in Addiction, Substance Use, and Social Services 3
BHS255 Health and Wellness Coaching in Professional Resiliency 3
BHS262 Behavioral Health Service Techniques for the Elderly 3
BHS266 Violence and Abuse Services 3
BHS269 Grief Support Techniques 3
BHS271 Developmental Disabilities Assistance Training 3
BHS272 Child and Adolescent Mental Health and Interventions 3
BHS275 Infant and Early Childhood Mental Health 3
CPD180 Human Resilience: Cognitive, Emotional, and Behavioral Applications 3

+ PSY266 Psychological Disorders 3


## General Electives

Credits: 0-3

Students choosing Developmental Disabilities, Criminal Justice and Forensic Science, or Mental Health may also need to complete PSY101, as it is a requisite to courses in these specializations. PSY101 can be counted towards General Education requirement in most Associate degrees.

PSY101 Introduction to Psychology 3

## Audio Production Technologies

Major Code: 5334
Total Credits: 39-40
Description: The Certificate of Completion (CCL) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge and experience essential in the field of audio production. An Associate in Applied Science (AAS) is also available.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 30-31
MTC101 Introduction to Music Theory 3
MTC191 Electronic Music I 3

+ MTC192 Electronic Music II 3
MUC109 Music Business: Content Creation and Copyright 3
MUC110 Music Business: Marketing and Monetization (3) OR MUC145 Recording Studio Business Operations (2) 2-3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC194 Audio Mixing Techniques 3
MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3
+ MUC196 Studio Music Recording II (3) OR
+ MUC196AA Studio Music Recording II (3) 3
MUC197 Live Sound Reinforcement I 3
+ MUC296WA Cooperative Education (1) OR
+ MUC297AA Audio Production Internship (1) OR
MUC298AA Special Projects (1) 1


## Restricted Electives

Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor.

NOTE: at least one (1) of the following courses must be completed: MTC291, MUC289, MUC292, or MUC295.

+ MTC193 Computer-Based Sound Synthesis 3
+ MTC291 Electronic Music III 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC122 Sound Design I 3
+ MUC198 Live Sound Reinforcement II 3
+ MUC222 Sound Design II 3
+ MUC289 Live Sound Reinforcement III 3
+ MUC292 Sound Design III 3
+ MUC295 Studio Music Recording III 3


## Automotive Automatic Transmission and Transaxle <br> Major Code: 5930N <br> Total Credits: 4

Description: The Certificate of Completion (CCL) in Automotive Automatic Transmission and Transaxle provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic transmission and transaxle. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE121 Automatic Transmission and Transaxle (4) OR
ASE121AU Automatic Transmission and Transaxle (4) 4

## Automotive Brake Systems

## Major Code: 5936N

Total Credits: 4

Description: The Certificate of Completion (CCL) in Automotive Brake Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of brake systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A5 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE151 Introduction to Brake Systems (2) OR
ASE151AU Introduction to Brake Systems (2) 2

+ ASE251 Advanced Brake Systems (2) OR
+ ASE251AU Advanced Brake Systems (2) 2


## Automotive Chassis

## Major Code: 5952

Total Credits: 16
Description: The Certificate of Completion (CCL) in Automotive Chassis provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of suspension, steering, brakes and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4, A5 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16
ASE141 Steering, Suspension and Pre-Alignment (2) OR
ASE141AU Steering, Suspension and Pre-Alignment (2) 2
ASE151 Introduction to Brake Systems (2) OR
ASE151AU Introduction to Brake Systems (2) 2
ASE151AU Introduction to Brake Systems (2) 2
ASE161 Basic Automotive Electrical/Electronics (2) OR ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2
+ ASE241 Advanced Steering, Suspension and Alignment (2) OR
+ ASE241AU Advanced Steering, Suspension and Alignment (2) 2
+ ASE251 Advanced Brake Systems (2) OR
+ ASE251AU Advanced Brake Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2


## Automotive Drive Train

Major Code: 5950
Total Credits: 16
Description: The Certificate of Completion (CCL) in Automotive Drive Train provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic and manual transmissions and drivetrains and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2, A3 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16
ASE121 Automatic Transmission and Transaxle (4) OR ASE121AU Automatic Transmission and Transaxle (4) 4

ASE131 Manual Drive Trains and Axles (4) OR
ASE131AU Manual Drive Trains and Axles (4) 4
ASE161 Basic Automotive Electrical/Electronics (2) OR
ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2


## Automotive Electrical, Heating, Ventilation and Air Conditioning Systems

Major Code: 5948N
Total Credits: 11
Description: The Certificate of Completion (CCL) in Automotive Electrical, Heating, Ventilation and Air Conditioning Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electrical systems and heating, ventilation and air conditioning. The curriculum within this certificate aligns with the

Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 11

ASE161 Basic Automotive Electrical/Electronics (2) OR
ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2

ASE171 Automotive Heating, Ventilation and Air Conditioning Systems (3) OR
ASE171AU Automotive Heating, Ventilation and Air Conditioning Systems (3) 3

+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2


## Automotive Electronic/Electrical Systems

Major Code: 5938N
Total Credits: 8
Description: The Certificate of Completion (CCL) in Automotive Electronic/Electrical Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electronic/electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A6 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 8

ASE161 Basic Automotive Electrical/Electronics (2) OR ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2


## Automotive Engine Performance

Major Code: 5942N
Total Credits: 8
Description: The Certificate of Completion (CCL) in Automotive Engine Performance provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine performance. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A8 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 8

ASE181 Introduction to Engine Performance (2) OR
ASE181AU Introduction to Engine Performance (2) 2

+ ASE182 Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) OR
+ ASE182AU Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) 2
+ ASE281 Computerized Automotive Engine Control Systems (2) OR
+ ASE281AU Computerized Automotive Engine Control Systems (2) 2
+ ASE282 Advanced Engine Performance Diagnosis (2) OR
+ ASE282AU Advanced Engine Performance Diagnosis (2) 2


## Automotive Engine Repair

Major Code: 5928N
Total Credits: 4

Description: The Certificate of Completion (CCL) in Automotive Engine Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair. The curriculum within
this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

Students are required to take (ASE102++ AND ASE111++) OR ASE113++ for a total of four (4) credits.

ASE102 Automotive Express Service (2) OR
ASE102AU Automotive Express Service (2)
AND
ASE111 Engine Diagnosis and Inspection (2) OR
ASE111AU Engine Diagnosis and Inspection (2) 4
OR
ASE113 Engine Repair (4) OR
ASE113AU Engine Repair (4) 4

## Automotive Engine Repair and Performance

Major Code: 5954
Total Credits: 20

Description: The Certificate of Completion (CCL) in Automotive Engine Repair and Performance provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair and performance and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1, A6 and A8 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 20
Students are required to take (ASE102++ AND ASE111++) OR ASE113++ for a total of four (4) credits.

ASE102 Automotive Express Service (2) OR
ASE102AU Automotive Express Service (2)
AND
ASE111 Engine Diagnosis and Inspection (2) OR
ASE111AU Engine Diagnosis and Inspection (2) 4
OR

ASE113 Engine Repair (4) OR
ASE113AU Engine Repair (4) 4

ASE161 Basic Automotive Electrical/Electronics (2) OR
ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2

ASE181 Introduction to Engine Performance (2) OR
ASE181AU Introduction to Engine Performance (2) 2

+ ASE182 Fundamentals of Automotive Fuel/Air and Ignition Systems (2) OR
+ ASE182AU Fundamentals of Automotive Fuel/Air and Ignition Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2
+ ASE281 Computerized Automotive Engine Control Systems (2) OR
+ ASE281AU Computerized Automotive Engine Control Systems (2) 2
+ ASE282 Advanced Engine Performance Diagnosis (2) OR
+ ASE282AU Advanced Engine Performance Diagnosis (2) OR
+ ASE263 Hybrid Vehicle Overview (2) 2


## Automotive Heating, Ventilation and Air Conditioning Systems

Major Code: 5940N
Total Credits: 3

Description: The Certificate of Completion (CCL) in Automotive Heating, Ventilation and Air Conditioning (HVAC) Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of HVAC systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 3

ASE171 Automotive Heating, Ventilation and Air Conditioning Systems (3) OR
ASE171AU Automotive Heating, Ventilation and Air Conditioning Systems (3) 3

## Automotive Maintenance and Light Repair

Major Code: 5946
Total Credits: 16

Description: The Certificate of Completion (CCL) in Automotive Maintenance and Light Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of basic electrical and mechanical maintenance and repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16
ASE101 Introduction to Automotive 2
ASE141 Steering, Suspension and Pre-Alignment (2) OR
ASE141AU Steering, Suspension and Pre-Alignment (2) 2
ASE151 Introduction to Brake Systems (2) OR
ASE151AU Introduction to Brake Systems (2) 2
ASE161 Basic Automotive Electrical/Electronics (2) OR
ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2

ASE171 Automotive Heating, Ventilation and Air Conditioning Systems (3) OR
ASE171AU Automotive Heating, Ventilation and Air Conditioning Systems (3) 3

ASE181 Introduction to Engine Performance (2) OR
ASE181AU Introduction to Engine Performance (2) 2
ASE290AA Automotive Service Internship (1) OR
ASE298AA Special Projects (1) 1

## Automotive Manual Drive Train and Axles

Major Code: 5932N
Total Credits: 4

Description: The Certificate of Completion (CCL) in Automotive Manual Drive Train and Axles provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of manual drive train and axles. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A3 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE131 Manual Drive Trains and Axles (4) OR
ASE131AU Manual Drive Trains and Axles (4) 4

## Automotive Service

Major Code: 5956
Total Credits: 44

Description: The Certificate of Completion (CCL) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1 A8).

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 41

ASE101 Introduction to Automotive 2
Students are required to take (ASE102++ AND ASE111++) OR ASE113++ for a total of four (4) credits.

ASE102 Automotive Express Service (2) OR
ASE102AU Automotive Express Service (2)
AND
ASE111 Engine Diagnosis and Inspection (2) OR
ASE111AU Engine Diagnosis and Inspection (2) 4
OR
ASE113 Engine Repair (4) OR
ASE113AU Engine Repair (4) 4
ASE121 Automatic Transmission and Transaxle (4) OR
ASE121AU Automatic Transmission and Transaxle (4) 4
ASE131 Manual Drive Trains and Axles (4) OR
ASE131AU Manual Drive Trains and Axles (4) 4
ASE141 Steering, Suspension and Pre-Alignment (2) OR
ASE141AU Steering, Suspension and Pre-Alignment (2) 2
ASE151 Introduction to Brake Systems (2) OR
ASE151AU Introduction to Brake Systems (2) 2

ASE161 Basic Automotive Electrical/Electronics (2) OR ASE161AU Basic Automotive Electrical/Electronics (2) 2

+ ASE162 Automotive Battery, Starting and Charging Systems
(2) OR
+ ASE162AU Automotive Battery, Starting and Charging Systems (2) 2

ASE171 Automotive Heating, Ventilation and Air Conditioning Systems (3) OR
ASE171AU Automotive Heating, Ventilation and Air Conditioning Systems (3) 3

ASE181 Introduction to Engine Performance (2) OR ASE181AU Introduction to Engine Performance (2) 2

+ ASE182 Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) OR
+ ASE182AU Theory and Fundamentals of Automotive Fuel/Air and Ignition Systems (2) 2
+ ASE241 Advanced Steering, Suspension and Alignment (2) OR
+ ASE241AU Advanced Steering, Suspension and Alignment (2) 2
+ ASE251 Advanced Brake Systems (2) OR
+ ASE251AU Advanced Brake Systems (2) 2
+ ASE261 Automotive Electrical Diagnostics and Repair (2) OR
+ ASE261AU Automotive Electrical Diagnostics and Repair (2) 2
+ ASE262 Automotive Electronic Control Systems (2) OR
+ ASE262AU Automotive Electronic Control Systems (2) 2
+ ASE281 Computerized Automotive Engine Control Systems (2) OR
+ ASE281AU Computerized Automotive Engine Control Systems (2) 2
+ ASE282 Advanced Engine Performance Diagnosis (2) OR
+ ASE282AU Advanced Engine Performance Diagnosis (2) OR
+ ASE263 Hybrid Vehicle Overview (2) 2


## Restricted Electives

Credits: 3

ASE264 Advanced Automotive Electrical Systems 3
ASE265 Introduction to Electric Drive Vehicles 3
ASE266 Electric/Hybrid High Voltage Batteries 1
ASE267 Electric Vehicle Operation and Diagnosis 3
ASE290++ Automotive Service Internship (any suffixed courses)
(1-3) 1-3
ASE296++ Cooperative Education (any suffixed courses) (1-3) 1-3
ASE298++ Special Projects (any suffixed courses) (1-3) 1-3
DIE104 Electrical for Diesel Engines I 3
DIE106 Mobile Hydraulics and Pneumatics 3
DIE108 Heavy Duty Diesel Power Trains 3
DIE112 General Diesel Engines 3
GTC/MIT/OSH106 Industrial Safety 2
WLD101 Welding I 3

## Automotive Steering and Suspension

Major Code: 5934N
Total Credits: 4
Description: The Certificate of Completion (CCL) in Automotive Steering and Suspension provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of steering and suspension. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4
ASE141 Steering, Suspension and Pre-Alignment (2) OR
ASE141AU Steering, Suspension and Pre-Alignment (2) 2

+ ASE241 Advanced Steering, Suspension and Alignment (2) OR
+ ASE241AU Advanced Steering, Suspension and Alignment (2) 2


## Basic Behavioral Health Sciences

Major Code: 5522
Total Credits: 18
Description: The Certificate of Completion (CCL) in Basic
Behavioral Health Sciences is designed to provide students with
a foundational study of human behavior and prepare them to assist, as part of a clinical team, in the care of individuals and families dealing with mental illness, comorbid medical conditions, and challenging behaviors. The program includes courses designed to provide students with the skills necessary to deliver essential behavioral health and social services. The core focus of the program is practical training and service learning experiences.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 18
BHS150 Introduction to Behavioral Health and Social Services 3 BHS155 Professional Resiliency and Well-Being 3 BHS160 Ethical, Legal and Professional Issues in Behavioral Health and Social Service 3
BHS165 Applied Therapeutic Communication Skills 3
BHS170 Case Management and Clinical Documentation 3 BHS180 Child, Family, and Adult Advocacy 3

## Biomedical Equipment Technology

Major Code: 5985
Total Credits: 26-36
Description: The Certificate of Completion (CCL) in Biomedical Equipment Technology program introduces students to the technical knowledge and skills needed for entry level positions troubleshooting, repairing, and maintaining biomedical equipment used by hospitals, clinics, home healthcare providers, and medical device manufacturers and repair companies. Coursework includes the study of electronics, networking, information security, human anatomy and physiology, regulatory, and healthcare delivery systems.

Program Notes: Students must earn a grade of C or better in each course in the program.

## Required Courses <br> Credits: 26-36

BIO160 Introduction to Human Anatomy and Physiology 4

+ BME101 Introduction to Biomedical Equipment Technology 3
CIS105 Survey of Computer Information Systems (3) AND
+ CIS190 Introduction to Networking (3)
OR
CNT140AB Introduction to Networks (4) 4-6
+ ELE111 Circuit Analysis I 4
+ ELE121 Solid-State Devices and Circuits 14
ELE131 Digital Logic and Circuits 3
HCC130 Fundamentals in Health Care Delivery 3
HCC145 Medical Terminology for Health Care Professionals (3) OR

HCC145AA Medical Terminology for Health Care Professionals I
(1) 1-3

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
MAT126 Intermediate Algebra with Review (6) OR
Permission of Program Director (0) 0-6


## Commercial Real Estate

Major Code: 5229N
Total Credits: 7
Description: The Certificate of Completion (CCL) in Commercial Real Estate is designed for additional preparation for the new agent or broker and to provide specialized professional development for the experienced professional agent or broker. The CCL includes a core of classes in the foundations of commercial real estate, ethics, and the required research and computational skills in the field. The program also offers the opportunity to explore specializations within the industry. A CCL in Real Estate: Prelicense (5139N) is also available.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better in each course in the program.

Program Prerequisites: Students should have:

- An AZ real estate license OR
- Completion of MCCCD`s CCL Real Estate: Prelicense ( 5139 N ) or its equivalent OR
- A real estate license from another state OR
- Completed pre licensure coursework from another approved Arizona real estate school


## Required Courses

Credits: 5
REA205 Introduction to Commercial Real Estate 2

+ REA208 Ethics in Commercial Real Estate 1
+ REA211 Compliance in Commercial Real Estate 1
+ REA214 Finance in Commercial Real Estate 1


## Restricted Electives

Credits: 2
Students must select two of the following options:

+ REA220 Multiunit Properties in Commercial Real Estate 1
+ REA225 Industrial Properties in Commercial Real Estate 1
+ REA230 Land Properties in Commercial Real Estate 1
+ REA235 Commercial Real Estate Essential Tools 1


## Crime Scene Investigation

Major Code: 5964
Total Credits: 16-18
Description: The Certificate of Completion (CCL) in Crime Scene Investigation is designed to develop knowledge and skills required to investigate and reconstruct crime scenes using scientific evidence and logical analysis. The program provides instruction in criminal investigation procedures, collection and preservation of physical and biological evidence, death investigation techniques, crime scene reconstruction methodology and presentation of testimony in court.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 16-18
AJS213 Evidence Technology/Fingerprints (3) OR
AJS243 Crime Scene Reconstruction (3) 3
AJS215 Criminalistics: Physical Evidence (3) OR
AJS219 Crime Scene Technology: Physical Evidence (3) OR
FOR105 Forensic Science: Physical Evidence (4) 3-4
AJS216 Criminalistics: Biological Evidence (3) OR
FOR106 Forensic Science: Biological Evidence (4) 3-4
AJS214 Evidence Technology Photography 3
AJS275 Criminal Investigation I 3
AJS290BN Courtroom Testimony Seminar 1

## Developmental Disabilities Specialist

Major Code: 5034
Total Credits: 16-17

Description: The Certificate of Completion (CCL) in Developmental Disabilities Specialist is designed for students interested in working in various settings serving children or adults with developmental disabilities. The coursework combines theory and application. Academic preparation focuses on the physical and emotional correlates of developmental disability. The students also complete an internship, gaining experience working in a school or agency supporting persons with developmental disability.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 13
EDU222 Introduction to the Exceptional Learner (3) OR

+ PSY243 The Psychology of Developmental Disabilities (3) 3
PSY101 Introduction to Psychology 3
+ PSY240 Developmental Psychology (3) OR
+ PSY266 Psychological Disorders (3) 3
+ PSY241 Understanding and Changing Behavior 3
+ PSY244 Internship in Psychology 1


## Restricted Electives

Credits: 3-4
Complete one (1) of the courses listed below. Course selection must be different from courses counted in the Required Courses area.

ASL101 American Sign Language I 4
BHS170 Case Management and Clinical Documentation 3
BHS175 Introduction to Trauma-Informed Care and Trauma-
Focused Caregiving 3
BHS180 Child, Family, and Adult Advocacy 3
BHS275 Infant and Early Childhood Mental Health 3
CFS112 Personal Growth and Family Relations 3
CFS/ECH176 Child Development 3
CFS205 Human Development 3
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight 3
COM110 Interpersonal Communication 3
FON100 Introductory Nutrition 3

+ PSY240 Developmental Psychology 3
+ PSY266 Psychological Disorders 3
SPA115 Beginning Spanish Conversation 13
SWU171 Introduction to Social Work 3


## Early Childhood Education

Major Code: 5056
Total Credits: 36
Description: The Certificate of Completion (CCL) in Early Childhood Education program is designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. An Associate in Applied Science (AAS) in Early Childhood Education is also available and includes additional early childhood electives and general education classes to broaden the student's base of knowledge.

Program Notes: Students must earn a grade of C or better for all courses within the program.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

## Required Courses

Credits: 29-34

CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age
Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3
EED200 Foundations of Early Childhood Education 3
CFS/ECH271 Arranging the Environment (1) AND
CFS282 Mainstreaming The Young Child with A Disability (1)
AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3
CFS123 Health and Nutrition In Early Childhood Settings (1) AND
CFS125 Safety in Early Childhood Settings (1) AND
ECH280 Food Experiences With Young Children (1) OR
EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3
CFS101AH Art Activities for the Young Child (1) AND
ECH281 Movement/Music for the Young Child (1) OR
ECH128 Early Learning: Play and the Arts (3) OR

+ EED210 Creative and Cognitive Play (3) 2-3
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight (3) OR
EDU222 Introduction to the Exceptional Learner (3) 3
CFS/ECH273 Math for the Young Child (1) AND
CFS/ECH275 Literacy Development and the Young Child (1) AND
ECH272 Science for the Young Child (1) AND
ECH279 Early Childhood Curriculum Development (1) OR
+ EED278 Early Learning: Curriculum and Instruction -
Birth/Preschool (3) 3-4
EED225 Language and Literacy in the Context of Culture and Relationships 3

ECH140 Learning Made Visible Through Documentation (1) AND ECH270 Observing Young Children (1) OR

+ EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3
+ CFS/ECH269 Child Care Seminar (1) AND
CFS/ECH287 Professional Development in Early Childhood Education (1) OR
+ EED255 Portfolio Development and Writing for the Profession (3) 2-3
+ CFS/ECH284AB Early Childhood Teaching Internship (3) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) AND
+ EED261 Early Childhood Preschool Internship (1) OR CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3


## Restricted Electives

Credits: 2-7
Students must select 2-7 credits from the following courses to meet a minimum of 36 credits for the certificate. Cannot be shared with Required Courses Area.

CFS+++ Any CFS Child/Family Studies course(s)
ECH+++ Any ECH Early Childhood Education course(s)
EDU+++ Any EDU Education course(s)
EED+++ Any EED Early Education course(s)
FCS+++ Any FCS Family and Consumer Science course(s)
ITD+++ Any ITD Infant/Toddler Development course(s)

## Emergency Medical Technology

## Comprehensive

Major Code: 5058
Total Credits: 16-17

Description: The Certificate of Completion (CCL) in Emergency Medical Technology Comprehensive curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. This certificate provides students with the expanded knowledge and skills for prehospital settings. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

Program Notes: Students must earn a grade of $C$ or better in all courses within the program.

EMT104 requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB or program director-approved rotation.

## Required Courses

Credits: 13

Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
Current validation in Basic Life Support (BLS) Health Care
Provider/Professional Rescuer (0) AND
Credit By Evaluation (0.5) 0.5

+ EMT104AB Applied Practical Studies for Emergency Medical Technology 0.5
+ EMT104 Emergency Medical Technology 10
+ EMT104LL Emergency Medical Technology Practicum 2


## Restricted Electives

Credits: 3-4
AJS/EMT/FSC/SWU258 Victimology and Crisis Management 3 BIO156 Introductory Biology for Allied Health 4
HCC145 Medical Terminology for Health Care Professionals 3 PME190 Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals 3
PME191 Introduction to Pharmacology for EMS Professionals 3

## Fingerprint Identification and Photography

Major Code: 5010N
Total Credits: 10
Description: The Certificate of Completion (CCL) in Fingerprint Identification and Photography is designed to prepare students for entry level positions in the field of fingerprint classification and identification. It is one pathway to the Associate in Applied Science (AAS) in Forensic Science.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 10

AJS101 Introduction to Criminal Justice 3
AJS213 Evidence Technology/Fingerprints 3
AJS214 Evidence Technology/Photography 3
AJS290BN Courtroom Testimony Seminar 1

## Foundations of Early Childhood Education

Major Code: 5054
Total Credits: 18-19
Description: The Certificate of Completion (CCL) in Foundations of Early Childhood Education is designed to prepare students with foundational knowledge regarding the growth and development of the young child. Topics include cognitive and physical development of the young child, language acquisition, curriculum development, health and safety guidelines, business procedures, and family/community relationship building. This CCL is embedded (can be used to fulfill part of the requirements) in a second available CCL, Early Childhood Education. Both CCLs are embedded (can be used to fulfill requirements) in the Associate in Applied Science (AAS) in Early Childhood Education.

Program Notes: Students must earn a grade of C or better for all courses within the program.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

## Required Courses

Credits: 18-19
CFS/ECH176 Child Development (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal to Age
Eight (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3
EED200 Foundations of Early Childhood Education 3
CFS/ECH271 Arranging the Environment (1) AND
CFS282 Mainstreaming The Young Child with A Disability (1)
AND
ECH282 Discipline/Guidance of Child Groups (1) OR
EED212 Guidance, Management and the Environment (3) 3
CFS123 Health and Nutrition In Early Childhood Settings (1) AND
CFS125 Safety in Early Childhood Settings (1) AND
ECH280 Food Experiences with Young Children (1) OR
EED215 Early Learning: Health, Safety, Nutrition and Fitness (3) 3
CFS101AH Art Activities for the Young Child (1) AND
ECH281 Movement/Music for the Young Child (1) OR
ECH128 Early Learning: Play and the Arts (3) OR

+ EED210 Creative and Cognitive Play (3) 2-3
EDU222 Introduction to the Exceptional Learner (3) OR EED222 Introduction to the Exceptional Young Child: Birth to Age Eight (3) 3
+ CFS/ECH284AA Early Childhood Teaching Internship (1) OR
+ EED260 Early Childhood Infant/Toddler Internship (1) OR
+ EED261 Early Childhood Preschool Internship (1) 1


## General Business

Major Code: 5683
Total Credits: 21
Description: The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Program Notes: Students must earn a grade of C or better in all courses in the program.

## Required Courses

Credits: 12

ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3

GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3

## Restricted Electives

Credits: 9
Students should select nine (9) credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++ Any EPS Entrepreneurial Studies course(s) 1-3
GBS+++ Any GBS General Business course(s)
MGT+++ Any MGT Management course(s)
MKT+++ Any MKT Marketing course(s)
IBS+++ Any IBS International Business course(s)
REA+++ Any REA Real Estate course(s)
SBS+++ Any SBS Small Business Management course(s)

## Homeland Security

Major Code: 5322N
Total Credits: 15
Description: The Certificate of Completion (CCL) in Homeland Security program is designed to provide students with the knowledge and skills needed to conduct a homeland security evaluation and to assess, investigate and respond to terrorism incidents. It also provides criminal justice practitioners with an opportunity for academic growth and the development of specialized skills in homeland security.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of C or better in all courses required within the program.

## Required Courses

Credits: 15
AJS/FSC139 Emergency Response to Terrorism 3
AJS/FSC147 Emergency Preparedness 3
AJS/FSC148 Fundamentals of Emergency Management 3
AJS/FSC149 Hazard Mitigation 3
AJS195 International and Domestic Terrorism 3

## Kubernetes Administration

Major Code: 5933N
Total Credits: 4-10
Description: The Certificate of Completion (CCL) in Kubernetes Administration is designed to provide students with the knowledge and skills to perform the responsibilities of administering cluster architecture, installation, configuration, storage and troubleshooting. This program helps prepare
students for the Certified Kubernetes Administrator (CKA) certification. Industry professionals in the field of systems administration will benefit from adding a specialization in Kubernetes administration to their skill sets.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better in each course in the program.

## Required Courses

Credits: 4-10
CIS126DL Linux Operating System (3) AND

+ CIS238DL Linux System Administration (3)
OR
CIS126RH Red Hat System Administration I (3) AND
+ CIS238RH Red Hat System Administration II (3)
OR
Permission of Instructor or Department (0) 0-6
+ CIS252 Introduction to Kubernetes Administration 4


## Kubernetes Application Development

Major Code: 5935N
Total Credits: 3-6
Description: The Certificate of Completion (CCL) in Kubernetes Application Development is designed to provide students with the knowledge and skills to define application resources and use core primitives to build, monitor and troubleshoot scalable applications and tools in Kubernetes. This program helps prepare students for the Kubernetes Security Specialist (CKAD) certification exam. Industry professionals in the field of application development will enhance their skill set by adding this specialization.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better in each course in the program.

## Required Courses

Credits: 3-6
Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C\# (C-Sharp), is recommended.

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
permission of instructor or department (0) 0-3

+ CIS254 Introduction to Kubernetes Application Development 3


## Kubernetes Security

Major Code: 5937N
Total Credits: 7-13
Description: The Certificate of Completion (CCL) in Kubernetes Security provides students the knowledge and skills to perform
a broad range of best practices for securing container-based applications and Kubernetes platforms during build, deployment and runtime. This program helps prepare students for the Kubernetes Security Specialist (CKS) certification exam. Industry professionals in the field of information technology security will benefit from adding a specialization in Kubernetes security to their skill sets.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better in each course in the program.

## Required Courses

Credits: 7-13
CIS126DL Linux Operating System (3) AND

+ CIS238DL Linux System Administration (3)
OR
CIS126RH Red Hat System Administration I (3) AND
+ CIS238RH Red Hat System Administration II (3)
OR
Permission of Instructor or Department (0) 0-6
+ CIS252 Introduction to Kubernetes Administration 4
+ CIS255 Introduction to Kubernetes Security 3


## Personal Training

Major Code: 5421
Total Credits: 18-18.5
Description: The Certificate of Completion (CCL) in Personal Training is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum provides students with the foundational skills needed to design and implement fitness programs appropriate to clients' goals and aligned with current industry best practices. A CCL in Personal Training: Advanced, an Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance, and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

## Required Courses

Credits: 17-17.5
EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3
FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3
PED101ST Strength Training 1


## Restricted Electives

Credits: 1
Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course 1
FON+++++ Any FON Food and Nutrition course 1
HES+++++ Any HES Health Science course 1
PED+++++ Any PED Physical Education course 1
IFS110 Critical Research for College Success 1

## Personal Training: Advanced

## Major Code: 5445

Total Credits: 30-30.5
Description: The Certificate of Completion (CCL) in Personal Training: Advanced is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the CCL in Personal Training coupled with advanced hands-on courses that foster the development of critical thinking and leadership skills important for developing, implementing and leading exercise programs. An Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes: Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 29-29.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation
(CPR) for Health Care Providers (0.5) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.5) OR
Current CPR/AED certification (0) 0-0.5
EXS101 Introduction to Exercise Science 3

+ EXS125 Introduction to Exercise Physiology 3
+ EXS146 Introduction to Exercise Testing 1
+ EXS215 Resistance Training and Recovery Techniques 3
+ EXS217 Cardiorespiratory and Flexibility Training 3
+ EXS246 Advanced Exercise Testing 2
+ EXS255 Program Design: Muscular Fitness and Performance 3
+ EXS257 Program Design: Cardiorespiratory Fitness 3
Student must complete three (3) credits from the following EXS internship course options:
+ EXS270 Exercise Science Internship (3) OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS270AB Exercise Science Internship (2)
OR
+ EXS275 Sport Science Internship (3) OR
+ EXS275AA Sport Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AA Exercise Science Internship (1) AND
+ EXS275AB Sport Science Internship (2)
OR
+ EXS270AB Exercise Science Internship (2) AND
+ EXS275AA Sport Science Internship (1) 3
FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3
PED101ST Strength Training 1

```
PED101BC Boot Camp (1) OR
PED101BS Body Sculpting (1) OR
PED101CY Cycling - Indoor (1) OR
PED101GF Group Fitness/Aerobics (1) OR
PED101KB Kickboxing (1) OR
PED101LD Latin Dancing (1) OR
PED101PC Physical Conditioning (1) OR
PED101PS Pilates (1) OR
PED101SR Stretch and Relaxation (1) OR
PED101TC Tai Chi (1) OR
PED101TX Suspension Training (1) OR
PED101YG Gentle Yoga (1) OR
PED101YH Hatha Yoga (1) OR
PED101YO Yoga (1) OR
PED101YP Power Yoga (1) OR
PED101YR Restorative Yoga (1) OR
PED101ZU Zumba Fitness (1) 1
```


## Restricted Electives

## Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course (1)
FON+++++ Any FON Food and Nutrition course (1)
HES+++++ Any HES Health Science course (1)
PED+++++ Any PED Physical Education course (1)
IFS110 Critical Research for College Success (1)

## Programming and Systems Analysis Level II

Major Code: 5962
Total Credits: 36-37
Description: The Certificate of Completion (CCL) in Programming and Systems Analysis Level II provides an indepth exploration of different computer language and technical skills. This CCL includes, but is not limited to the following: local area networks, team roles, and dynamics. A Certificate of Completion (CCL) in iOS App Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are available.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Consultation with an Academic Advisor is recommended for course selection.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 33-34
The following courses are required and included in CCL Programming and Systems Analysis Level I:

CIS105 Survey of Computer Information Systems 3

+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) OR
+ MST150++ Any Microsoft Windows course (3) 3
CIS133DA Internet/Web Development Level I 3
+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) 3
+ CIS156 Python Programming: Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) OR
+ CIS165++ Any Mobile Application Development course (3) 3
+ CIS166++ Any Web Scripting course(s) 3
GBS151 Introduction to Business 3
The following courses are required for CCL Programming and Systems Level II:
+ CIS190 Introduction to Networking (3) OR
CNT140AB Introduction to Networks (4) OR
+ MST140 Microsoft Networking Essentials (3) 3-4
+ CIS225 Business Systems Analysis and Design (3) OR
+ CIS225AB Object-Oriented Analysis and Design (3) OR
+ CIS250 Management of Information Systems (3) 3
Select a programming language from below that best aligns with academic and professional goals (one course for a total of three credits) in one of the following areas:
+ CIS256 Python Programming: Level II (3) OR
+ CIS259 Visual Basic Programming II (3) OR
+ CIS262++ Any C Programming: Level II course (3) OR
+ CIS263AA Java Programming: Level II (3) OR
+ CIS265 Advanced iOS Application Development (3) 3


## Restricted Electives

Credits: 3
Select one (1) of the courses below that best aligns with academic and professional goals for a total of three (3) credits. Students may not choose courses they have taken from the Required Courses area.

+ CIS151 Computer Game Development-Level I 3
+ CIS156 Python Programming: Level I 3
+ CIS159 Visual Basic Programming I 3
+ CIS162++ Any C Programming: Level I course 3
+ CIS163AA Java Programming: Level I 3
+ CIS165++ Any Mobile Application Development course 3
CIS224 Project Management Microsoft Project for Windows 3
+ CIS251 Computer Game Development-Level II 3
+ CIS256 Python Programming: Level II 3
+ CIS259 Visual Basic Programming II 3
+ CIS262++ Any C Programming: Level II course 3
+ CIS263AA Java Programming: Level II 3
+ CIS265 Advanced iOS Application Development 3
GBS211 Legal, Ethical and Regulatory Issues of the Internet Studies 3


## Real Estate: Prelicense

Major Code: 5139N
Total Credits: 6.5
Description: The Certificate of Completion (CCL) in Real Estate: Prelicense introduces students to the real estate profession. This program is designed to prepare students to meet the requirements to take the Arizona State Real Estate Salesperson's Exam. Emphasis will be placed on license laws, real and personal property, financing, purchasing, selling, renting, legal descriptions, rights and interests in property, ownership, contracts, real estate terminology and economics, investing in real estate, foreclosure, land use, and evaluation.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for each course listed in the program.

## Required Courses

Credits: 6.5
REA179 Real Estate Principles I (3) AND

+ REA180 Real Estate Principles II (3) OR
REA201 Real Estate Principles I and II (6) 6
REA290AH Real Estate Seminar: Contract Writing 0.5


## Small Business Management Level I

Major Code: 5153N
Total Credits: 10-12
Description: The Certificate of Completion (CCL) in Small Business Management Level I program is designed to meet the needs of individuals who wish to own and/or manage a small business. Prepares students to acquire the skills, tools and knowledge necessary for successful start-up and operations of a business.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better required for all courses within the program.

## Required Courses

Credits: 10-12
EPS195 Business Start-Up and Planning (2) OR
MGT253 Owning and Operating a Small Business (3) OR

+ SBS216 Planning for a Small Business (2) 2-3
MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2)
SBS220 Internet Marketing for Small Business (2) 2-3
SBS200 Small Business Operations 2
SBS202 Small Business Bookkeeping and Tax Preparation (1) AND
SBS203 Financing and Cash Management for a Small Business
(1) OR

SBS230 Financial and Tax Management for Small Business (2) 2

SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

## Small Business Management Level II

Major Code: 5978
Total Credits: 16-18
Description: The Certificate of Completion (CCL) in Small Business Management Level II program is designed to focus on aspects critical to a specific individual's small business. Prepares students to acquire additional skills, tools and knowledge necessary for successful start-up and operations of a business. A Certificate of Completion (CCL) in Small Business Management Level I is also available and fully embedded in this program.

Program Notes: Students must earn a grade of C or better for all courses within the program.

## Required Courses

Credits: 10-12
EPS195 Business Start-Up and Planning (2) OR
MGT253 Owning and Operating a Small Business (3) OR

+ SBS216 Planning for a Small Business (2) 2-3
MKT271 Principles of Marketing (3) OR
SBS204 Small Business Marketing and Advertising (2)
SBS220 Internet Marketing for Small Business (2) 2-3
SBS200 Small Business Operations 2
SBS202 Small Business Bookkeeping and Tax Preparation (1) AND
SBS203 Financing and Cash Management for a Small Business
(1) OR

SBS230 Financial and Tax Management for Small Business (2) 2
SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

## Restricted Electives

Credits: 6
Choose six (6) credits from the restricted electives below.
Courses cannot be shared with Required Courses.
EPS150 Introduction to Entrepreneurship 3
EPS195 Business Start-Up and Planning 2
MGT253 Owning and Operating a Small Business 3
MKT271 Principles of Marketing 3
SBS202 Small Business Bookkeeping and Tax Preparation 1
SBS203 Financing and Cash Management For a Small Business 1
SBS204 Small Business Marketing and Advertising 2

+ SBS216 Planning for a Small Business 2
SBS217 Starting/Managing a Home Business 1

SBS220 Internet Marketing for Small Business 2
SBS221 Social Media Marketing for Small Business 2
SBS230 Financial and Tax Management for Small Business 2

## Victimology

Major Code: 5392N
Total Credits: 15
Description: The Certificate of Completion (CCL) in Victimology is designed for students who are interested in pursuing a course of study specifically focused on crisis intervention, community services, and victim rights. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes: This program is not eligible for title iv federal financial aid. Students must earn a grade of $C$ or better for all courses required within the program.

## Required Courses

Credits: 15
AJS101 Introduction to Criminal Justice 3
AJS162 Domestic Violence 3
AJS225 Criminology 3
AJS255 The Criminal Justice System Handling of the Mentally III 3
AJS/EMT/FSC/SWU258 Victimology and Crisis Management 3

## Video Game Production: Audio and Sound

Major Code: 5130
Total Credits: 30-31
Description: The Certificate of Completion (CCL) in Video Game Production: Audio and Sound provides students with the introductory skills in audio and sound for video games. Coursework focuses on the music aspects of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is available. Certificates of Completion (CCL) are also available in Video Game Production: Game Art, Video Game Production: Coding and Scripting, and Video Game Production: Narrative.

Program Notes: Students must earn a grade of C or better for all courses required within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 30-31
Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

ART100 Introduction to Digital Arts 1
CIS105 Survey of Computer Information Systems 3

+ CIS151 Computer Game Development Level I 3
MUC122 Sound Design I 3
CRW176 Writing Narrative for Video Games 3
Students must complete the following courses for a total of 1718 credits that apply to the Video Game Production: Audio and Sound Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

MTC191 Electronic Music (3) OR

+ MUC194 Audio Mixing Techniques (3) 3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MTC192 Electronic Music II (3) OR
+ MUC196 Studio Recording II (3) 3
MUC195 Studio Music Recording I 3
+ MUC222 Sound Design II 3
+ MUC292 Sound Design III (3) OR
+ MUC298AB Special Projects (2) 2-3


## Web Design

Major Code: 5986
Total Credits: 38-43
Description: The Certificate of Completion (CCL) in Web Design provides students with comprehensive and focused studies in web design, including advanced image manipulation, vector graphics, page layout, video editing and design principles. A Certificate of Completion (CCL) in Web Development and an Associate in Applied Science (AAS) in Web Design/Development are also available.

Program Notes: Students must earn a grade of C or better in each course in the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

## Credits: 36-37

The following courses are required and also fulfill the requirements for the CCL in Web Foundations:

CIS105 Survey of Computer Information Systems 3
CIS120DF Adobe Photoshop Level I: Digital Imaging 3 CIS133DA Internet/Web Development Level I 3 CIS136 Content Management Systems: WordPress 3

+ CIS166AA Introduction to Javascript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3

The following courses are required and fulfill the requirements for the CCL in Web Design:

```
ADA/ART183 Digital Graphic Arts I (3)
OR
ART100 Introduction to Digital Arts (1) AND
ART181 Graphic Design I (3)
OR
ART112 Two-Dimensional Design (3) 3-4
```

CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DA Introduction to Digital Video Editing: Adobe Premiere
(3) OR
CIS120DK Introduction to Digital Video Editing (3) 3

+ CIS138DA Desktop Design and Publishing Using Adobe
InDesign 3
+ CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging
3


## Restricted Electives

Credits: 2-6
Select 2-6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business and/or Multimedia.

## Appendix G - Glossary of College Terminology

## A

Academic Catalog: an annual publication of graduation policies, programs, and courses.

Advisor: a resource person able to help students plan a course of study and select appropriate courses. Also called Academic Advisor or Department Advisor or Program Advisor.

Arizona General Education Curriculum Certificate (AGEC): a general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. There are three types of AGECs in MCCCD: AGEC-A, AGEC-B, and AGEC-S. Generally, the MCCCD AGEC transfers as a block without loss of credit.

Associate Degree: a degree awarded for the completion of a minimum of 60 credits selected to meet specific requirements. The Associate in Arts (AA), Associate in Arts, Fine Arts (AAFA), Associate in Arts in Elementary Education (AAEE), Associate in Business (ABus) and Associate in Science (AS) emphasizes courses for transfer to four-year schools, the Associate in General Studies (AGS) allows more flexibility in course selection, and the Associate in Applied Science (AAS) emphasizes a particular occupational field.

Audit: taking a class for no credit. Please see the Tuition and Fee chart in the common pages' addendum for the additional charges for auditing.

Award: refers to the type of degree or certificate conferred upon completion, e.g. Associate in Applied Science (AAS), Associate in Arts (AA), Associate in Business (ABUS), Associate in General Studies (AGS), Associate in Science (AS), Arizona General Education Curriculum (AGEC), Academic Certificate (AC), Certificate of Competency (CCT), and Certificate of Completion (CCL).

Award Subplan (Specialization or Transfer Plan): organization of course options within an award based on a student's career or transfer goals. In the curricular bank these options are designated as specialization for occupational pathways and transfer plans for Emphases (e.g. AS, Chemistry). In the Student Information System (SIS) all organization of course options within awards are designated as subplans.

## B

Bachelor Degree: a degree awarded for the completion of approximately 120 credits selected to meet specific requirements. The Bachelor in Arts (BA) or the Bachelor in Science (BS) generally are awarded by a four-year school.

## C

Counselor: a faculty member available to help students and
community members with personal, career, or school related concerns.

Course: a unit of teaching that develops students' knowledge and skills in a particular area of study. Courses in MCCCD include standard, discipline specific courses, as well as special topics, internships, experimental, service learning, etc. to provide an individualized learning experience. Courses can be offered in MCCCD as clock hour, credit hour, or non-credit.

Course Competencies: statements that describe skills and/or knowledge that students are expected to gain as a result of successfully completing the course. Includes a reference to the Course Outline (by Roman Numerals) that identifies a relationship between course concepts and a competency.

Course Equivalency Guide (CEG): the CEG indicates how Arizona State University, Northern Arizona University and the University of Arizona accept transfer coursework from the Arizona public institutions.

Credit Hour: an amount of work represented in course competencies and verified by evidence of student achievement. MCCCD follows the Federal Guidelines for the definition of credit hours.

Critical Course: a course that faculty have determined is predictive of future success in a pathway. Critical courses vary by pathway and are marked in the Pathway Planner to allow for the identification of opportunities for integrated student support and to inform improvements to a pathway map.

Cumulative Grade Point Average (GPA): a measure of student academic proficiency which is calculated by multiplying each course credit hour by the points awarded for the grade earned. The sum then is divided by the total number of credit hours completed with A, B, C, D, F, or Y grades. Please see the grade key in the common pages' addendum for point information.

## E

Elective: a course a student selects in order to complete a program of study, sometimes with restrictions.

Emphasis: represents a set of specified coursework designed to articulate with particular baccalaureate programs and make the transfer path clear for students. An emphasis is not a separate award.

## F

Federal Work Study: a form of financial aid based on need which provides the student with on campus paid employment while in school.

Fields of Interest: an organization of degrees and certificates that share similar areas of study, allowing students to find an
educational pathway and participate in student experiences that align with their intended academic and career goals.

## G

Gateway Course: the first discipline-specific course on a pathway that provides an introduction to the discipline.

General Elective: any credit course used to satisfy the minimum credit requirement for a particular degree pathway that does not fulfill any other degree requirements.

Grade Point Average (GPA): minimum required grade point average in Maricopa is determined by degree policies and approved in the curricular process. Degree and certificate GPA requirements may be informed by transfer institution admission requirements.

Grant: student financial aid based on need.

## L

Lower Division Course: freshman and sophomore courses (100level and 200-level) usually completed in the first two years of college.

## M

Milestone: a measurable curricular or co-curricular achievement connected to a pathway that includes intermediate outcomes, such as completing a course sequence or an embedded award, participating in a work-based experience, or transferring to a baccalaureate program.

## P

Pathway: a comprehensive plan to student end goals (e.g., degree, certificate, trade and technical program, and/or transfer option). It includes career opportunities, learning outcomes, a course sequence, milestones, and critical and gateway courses.

Pathway Planner: an online academic tool located in the Student Center that houses a pre-populated semester-bysemester course sequence (also known as a pathway) based upon the student's declared academic program/plan.

Prerequisite: specified condition, requirement, or course which must be completed before enrolling in a class.

## R

Recommended Course: a suggested course selection provided by disciplinary faculty to meet a degree requirement where a specific course or single course is not otherwise prescribed.

Required Course: a course within the pathway that must be completed to achieve the certificate or degree awarded.

Restricted Elective: a course selected from a specified group of courses that support the achievement of the identified learning
outcomes and satisfy MCCCD degree or certificate requirements.

## S

Schedule Adjustment: the period during which a student can drop classes without penalty. This period varies with the length of class.

Scholarship: student financial aid based on academic achievement, need, or a combination of factors.

Semester: traditionally half an academic year (about 16 weeks). Fall semester begins in August and Spring semester begins in January.

Student Handbook: an annual online publication of college policies, procedures, and student rights and responsibilities. It contains the Maricopa Community College District (MCCD) Administrative Regulations and Appendix items (also referred to as the Catalog Common Pages) specifically relevant to students.

Shared Unique Number (SUN): The SUN System is a college course numbering system designed to help Arizona students plan their education and ensure successful transfer of course credits.

Syllabus: a course outline and information on classroom policies, tests, dates and materials to be used in a class. The instructor usually gives it to students at the first class meeting.

## T

Total Credits: the number of credits required to complete the award.

Transcript: an official record of the classes a student has enrolled in and grades earned.

Transfer Credit: credit earned at another college applied to a Glendale Community College program or credit earned at Glendale Community College to be applied to another college or university.

## U

Upper Division Course: junior and senior courses (300-level and 400-level) usually completed in the last two years of college.


Convenient Locations
GCC main
6000 W. Olive Ave., Glendale, AZ 85302
623.845.3333 | www.gccaz.edu

GCC North
5727 W. Happy Valley Rd., Phoenix, AZ 85310
623.845.4000 | www.gccaz.edu/gcenorth

## GLENDALE COMMUNITY COLLEGE

A MARICOPA COMMUNITY COLLEGE


[^0]:    *Course fees are not included in these calculations, so there may be additional costs beyond textbooks.

[^1]:    VI. General Electives0-28

    Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities.

[^2]:    *FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
    **64 semester credits are the maximum accepted toward most degree programs at Arizona's public universities.

    Some exceptions apply; consult with an academic advisor for additional transfer pathways

[^3]:    ABUS-GR Requirements
    Credits
    I. Required Courses ............................................... 28-34

    Accounting:
    ACC111 Accounting Principles I (3) AND
    ACC112 Accounting Principles II (3) AND
    ACC212 Managerial Accounting (3)
    OR
    ACC111 Accounting Principles (3) AND
    ACC230 Uses of Accounting Information I (3) AND
    ACC240 Uses of Accounting Information II (3)
    OR
    ACC211 Financial Accounting (3) AND
    ACC212 Managerial Accounting (3) 6-9
    Some of the following courses can be used to satisfy both this requirement and an AGEC-B requirement. AGEC designations are subject to change. See AGEC Matrix for each course's value(s) in the semester it is taken.

    ECN211 Macroeconomic Principles [SB] (3)
    ECN212 Microeconomic Principles [SB] (3)
    FYE101 OR FYE103 Introduction to College, Career and Personal Success (1-3)
    GBS205 Legal, Ethical, and Regulatory Issues in Business (3)
    GBS221 Business Statistics (3)
    CIS162AD C\#: Level I (3)
    CIS250 Management of Information Systems (3)

    ## Quantitative Methods:

    GBS220 Quantitative Methods in Business (3) OR MAT217 or MAT218 Mathematical Analysis for Business (3-4) 3-4

    ## NOTE:

    - Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 or MAT218.
    - Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220, MAT217, or MAT218.

[^4]:    + CIS119DO Introduction to Oracle: SQL (3) OR
    + CIS276DA MySQL Database (3) OR
    + CIS276DB SQL Server Database (3) 3

[^5]:    + CIS151 Computer Game Development-Level I 3
    + CIS156 Python Programming: Level I 3
    + CIS159 Visual Basic Programming 13
    + CIS162++ Any C Programming: Level I course 3
    + CIS163AA Java Programming: Level I 3
    + CIS165++ Any Mobile Application Development course 3 CIS224 Project Management Microsoft Project for Windows 3
    + CIS251 Computer Game Development-Level II 3
    + CIS256 Python Programming: Level II 3

[^6]:    + CIS119DO Introduction to Oracle: SQL (3) OR
    + CIS276++ Any Database Management Systems course (3) 3

[^7]:    * For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
    *** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time
    + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
    ++ After the 7 th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix $S$ - 7 in Catalog Common Pages)

[^8]:    * For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
    *** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
    + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
    ++ After the 7 th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix $S$ - 7 in Catalog Common Pages).

[^9]:    * For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
    *** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
    + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
    ++ After the 7 th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix $S-7$ in Catalog Common Pages).

[^10]:    * For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
    *** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
    + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages).
    ++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages).

[^11]:    + BIO181 General Biology (Majors) I (4) OR
    + BIO181XT General Biology (Majors) I (4) 4
    + BIO195AA Principles and Practice of Scientific Research 1
    + BIO205 Microbiology 4

