ASSOCIATE OF APPLIED SCIENCE (A.A.S.)

GCC ADVISEMENT CHECK SHEET 2009-2010

The Associate in Applied Science (AAS) in Biotechnology and Molecular Biosciences program will specifically train technicians to work in research and development, biomanufacturing, and the drug discovery and testing field of Biotechnology. The exposure to an academic environment that simulates the contemporary biotechnological workplace, inclusive of analytical, critical thinking and problem-solving skills, will form a strong technical foundation sought by employers. The successful completion of the program will also provide the educational background for those wishing to pursue a career in the pharmaceutical industry, clinical laboratory medicine, forensics or environmental testing laboratories.

Students are responsible for proper selection of courses and admission to University and professional programs.

Name	SID	**Biotechnology and Molecular Biosciences** **61-63 Credits** **Major Code: 3034** **Effective First Year/Term: 2009 Spring**

I. GENERAL EDUCATION CORE (15-17 Credits)			
(Must earn a grade of "C" or higher)	**CRS**	**GR**	**SEM**
FIRST-YEAR COMPOSITION			
ENG101 **OR** ENG107	3		
ENG102, ENG111 **OR** ENG108	3		
ORAL COMMUNICATION			
COM100, 225, **OR** 230	3		
CRITICAL READING			
CRE101 **OR** TEST EXEMPT	0-3		
MATHEMATICS			
MAT120, 121, 122 **OR** HIGHER	3-5		

II. GENERAL EDUCATION DISTRIBUTION (6 Credits)			
	CRS	**GR**	**SEM**
HUMANITIES AND FINE ARTS			
PHI213	3		
SOCIAL AND BEHAVIORAL SCIENCES			
	3		
NATURAL SCIENCES			
Met by BIO181, CHM130, OR CHM151	0		
COMMENTS:			

Students may request permission of department to waive program prerequisites.

III. PROGRAM PREREQUISITES (2 Credits)		CRS	GR	SEM
BIO173	Basic Instrumentation and Lab Math	1		
BIO175	Research Methods in Biology	1		

Students must earn a grade of "C" or better for each course listed in the Required Courses category

IV. REQUIRED COURSES (40 Credits)		CRS	GR	SEM
BIO156	Introductory Biology for Allied Health (4) **OR**			
BIO181	General Biology (Majors) I (4)	4		
BIO205	Microbiology	4		
BIO208	Nucleic Acids Methods	3		
BIO209	Biomolecular Separations	3		
BIO210	Advanced Lab Instrumentation	3		

Select 3 credit hours of Biology Seminar (BIO211AA and BIO211AB may each be repeated to apply toward Seminar credit total):

BIO211AA	Biotechnology Seminar: Biomedical Applications (1) **OR**			
BIO211AB	Biotechnology Seminar: Laboratory Protocol (1) **OR**			
BIO211AE	Biotechnology Seminar: Business and Regulatory Issues (1)	3		
BIO215	Biotechnology Internship (3) Two (2) semesters of internship are required.	6		
CHM130	Fundamental Chemistry (3) **AND**			
CHM130LL	Fundamental Chemistry Laboratory (1) **OR**			
CHM151	General Chemistry I (3) **AND**			
CHM151LL	General Chemistry I Laboratory (1)	4		
CHM230	Fundamental Organic Chemistry (3) **AND**			
CHM230LL	Fundamental Organic Chemistry Laboratory (1)	4		
CHM260	Biochemistry	3		
CSC180	Computing for Scientists, Engineers and Medical/Health Specialists (3) **OR**			
CSC283	Bioinformatics and Scientific Computing (3)	3		