

Biotechnology

The Biotechnology curriculum, which has emerged from molecular biology and chemical engineering, is designed to meet the increasing demands for skilled laboratory technicians in various fields of biological and chemical technology.

Course work emphasizes biology, chemistry, mathematics, and technical communications. The curriculum objectives are designed to prepare graduates to serve in three distinct capacities: research assistant to a biologist or chemist, laboratory technician/instrumentation technician, and quality control/quality assurance technician.

Graduates may find employment in various areas of industry and government, including research and development, manufacturing, sales, and customer service.

Biotechnology
 Associate in Applied Science Degree
 Suggested Course Sequence

				HOURS PER WEEK			
				CL.	LB.	CLIN.	CR.
FALL SEMESTER							
ACA 111	College Student Success	1	0	0	1		
	or						
ACA 122	College Transfer Success	1	0	0	1		
BIO 111	General Biology I	3	3	0	4		
BTC 181	Basic Lab Techniques	3	3	0	4		
CHM 131	Introduction to Chemistry	3	0	0	3		
CHM 131A	Introduction to Chemistry Lab	0	3	0	1		
	or						
CHM 151	General Chemistry I	3	3	0	4		
CIS 110	Introduction to Computers	2	2	0	3		
ENG 111	Expository Writing	3	0	0	3		
		15	11	0	19		
SPRING SEMESTER							
BIO 112	General Biology II	3	3	0	4		
CHM 132	Organic and Biochemistry	3	3	0	4		
ENG 114	Prof. Research & Reporting	3	0	0	3		
	Humanities/Fine Arts Elective	3	0	0	3		
	(ART DAN DRA ENG HUM						
	MUS PHI REL)						
MAT 155	Statistical Analysis	3	0	0	3		
		15	6	0	17		
SUMMER SEMESTER							
BIO 275	Microbiology	3	3	0	4		
		3	3	0	4		
FALL SEMESTER							
BIO 250	Genetics	3	3	0	4		
BTC 285	Cell Culture	2	3	0	3		
BTC 281	Bioprocess Techniques	2	6	0	4		
	Social/Behavioral Science Elective	3	0	0	3		
	(ANT ECO GEO HIS POL PSY SOC)						
MAT 171	Precalculus Algebra	3	0	0	3		
		13	12	0	17		
SPRING SEMESTER							
BTC 286	Immunological Techniques	3	3	0	4		
BTC 288	Biotech Lab Experience	0	6	0	2		
	or						
COE 112	Co-op Work Experience I	0	0	20	2		
PHY 151	College Physics I	3	2	0	4		
		6	5-11	0-20	10		
		52	37-43	0-20	67		

TOTAL SEMESTER HOURS REQUIRED FOR ASSOCIATE DEGREE: 67

Biotechnology
Diploma
Suggested Course Sequence

			HOURS PER WEEK			
			CL.	LB.	CLIN.	CR.
ACA 111	College Student Success		1	0	0	1
BTC 181	Basic Lab Techniques		3	3	0	4
CHM 131	Introduction to Chemistry		3	0	0	3
CHM 131A	Introduction to Chemistry Lab		0	3	0	1
or						
CHM 151	General Chemistry I		3	3	0	4
BIO 111	General Biology I		3	3	0	4
ENG 111	Expository Writing		3	0	0	3
CIS 110	Introduction to Computers		2	2	0	3
ENG 114	Prof Research & Reporting		3	0	0	3
BIO 112	General Biology II		3	3	0	4
CHM 132	Organic and Biochemistry		3	3	0	4
MAT 155	Statistical Analysis		3	0	0	3
BIO 275	Microbiology		3	3	0	4
BTC 281	Bioprocess Techniques		2	6	0	4
BIO 250	Genetics		3	3	0	4
MAT 171	Precalculus Algebra		3	0	0	3
			38	29	0	48

TOTAL SEMESTER HOURS REQUIRED FOR DIPLOMA: 48

Biotechnology
Certificate
Suggested Course Sequence

			HOURS PER WEEK			
			CL.	LB.	CLIN.	CR.
FALL SEMESTER						
BTC 181	Basic Lab Techniques		3	3	0	4
BIO 111	General Biology I		3	3	0	4
			6	6	0	8
SPRING SEMESTER						
CIS 110	Introduction to Computers		2	2	0	3
ENG 111	Expository Writing		3	0	0	3
or						
MAT 171	Precalculus Algebra		3	0	0	3
CHM 131	Introduction to Chemistry		3	0	0	3
CHM 131A	Introduction to Chemistry Lab		0	3	0	1
			8	5	0	10

TOTAL SEMESTER HOURS REQUIRED FOR CERTIFICATE: 18