

BIOMANUFACTURING TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE



Plan of Study (Degree Plan)

3BIO-MFG

First Year

First Term

Select one of the following: 3

MATH 1314	College Algebra	
MATH 1316	Plane Trigonometry	
MATH 1324	Mathematics for Business and Social Sciences	
MATH 1325	Calculus for Business and Social Sciences	
MATH 1342	Elementary Statistical Methods (Statistics)	
MATH 1350	Mathematics for Teachers I (Fundamentals of Mathematics I)	

BITC 1411 Introduction to Biotechnology 4

Select one of the following: 4

BIOL 1306 & BIOL 1106	Biology for Science Majors I (lecture) and Biology for Science Majors I (lab)	
BIOL 2301 & BIOL 2101	Anatomy and Physiology I (Lecture) and Anatomy and Physiology I (Lab)	
BITC 1191	Special Topics in Biological Technology/ Technician	1

Credits 12

Second Term

Select one of the following: 4

CHEM 1305 & CHEM 1105	Introductory Chemistry I (lecture) and Introductory Chemistry I (lab)	
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	

Select one of the following: 4

BIOL 2320 & BIOL 2120	Microbiology for Health Science Majors (lecture) and Microbiology for Health Science Majors (lab)	
BIOL 2321 & BIOL 2121	Microbiology for Science Majors (lecture) and Microbiology for Science Majors (lab)	
BITC 1302	Biotechnology Laboratory Methods and Techniques	3

BITC 1340 Quality Assurance for the Biosciences 3

Credits 14

Summer Year One Term

ENGL 1301 Composition I 3

BCIS 1305 Business Computer Applications 3

Credits 6

Second Year

First Term

BITC 2411 Biotechnology Laboratory Instrumentation 4

BITC 2377 Product Development to Commercialization 3

Select one of the following: 3

Language, Philosophy and Culture (Humanities)

Creative Arts (Fine Arts)

Social and Behavioral Sciences 3

Credits 13

Second Term

BITC 2431 Cell Culture Techniques 4

BITC 1403 Principles of Biochemistry 4

BITC 2386 Internship - Biology Technician/ Biotechnology Laboratory Technician 3

Select one of the following: 4

BITC 2475 Upstream and Downstream Manufacturing of Biologics

BITC 2441 Molecular Biology Techniques

BITC 2445 Medical Biotechnology

Credits 15

Total Credits 60

Work-based Learning Experience: BITC 2386 Internship - Biology Technician/Biotechnology Laboratory Technician