## 4+1 BS/MS PROGRAM IN BIOTECHNOLOGY

Year One

The Five Year Combined 4+1 BS/MS Program in Biotechnology is open to eligible students and includes three courses (10 credits) that count toward both the undergraduate and graduate degrees. Students should apply in the fall semester of the junior year. The first three years are the same as the Biotechnology B.S. Program. Students begin a research project in the Spring semester of the fourth (senior) year. Application requirements include a minimum of 3.0 GPA, two letters of recommendation, and the GRE.

## Recommended Timeline for Completion of BS/MS Program

Semester One		Credits
EN-101	College Writing I	3
CH-120	General Chemistry I	4
MA-180 or MA-190	Introduction to Functions (LASC QR) or Pre-calculus	3-4
LASC	LASC Elective (CON)	3
LASC	First-Year Seminar	3
	Credits	16-17
Semester Two		
EN-102	College Writing II	3
CH-121	General Chemistry II	4
MA-190	Pre-calculus	4
or MA-200	or Calculus I	
BI-141	Intro to Cellular and Molecular Biology	4
	Credits	15
Year Two		
Semester Three		
CH-201	Organic Chemistry I (lecture)	3
CH-203	Organic Chemistry Laboratory I	2
BI-204	Microbiology	4
MA-200	Calculus I ((or LASC Elective))	4
EN-252 or EN-253 or CS-120	Technical Writing or Business Communications or Microcomputer Applications	3
	Credits	16
Semester Four		
MA-150	Statistics I	3
MA-201	Calculus II	4
LASC	LASC Elective	3
LASC	LASC Elective	3
Select one of the following	:	3-5
CH-202	Organic Chemistry II (lecture)	
& CH-204	and Organic Chemistry Laboratory II	
LASC	LASC Elective	
	Credits	16-18
Year Three		
Semester Five		
CH-210	Chemical Analysis: an Introduction to Modern Methods	5
PY-221	General Physics I	4
LASC	LASC Elective	3

LASC	LASC Elective	3
	Credits	15
Semester Six		
CH-410	Biochemistry I	4
PY-222	General Physics II	4
LASC	LASC Elective	3
LASC	LASC Elective	3
	Credits	14
Year Four		
Semester Seven		
BI-521	Biotechnology and DNA	4
BI-440	Advanced Research Experience for Undergraduates	1-6
BI-3XX	Major Upper Level Elective	4
LASC	LASC Elective	3
LASC	LASC Elective	3
	Credits	15-20
Semester Eight		
BI-527	Tissue Culture Techniques	3
BI-440	Advanced Research Experience for Undergraduates	3
BT-410	Biotechnology Seminar	1
BT-5XX	Major Upper Level Elective	
SELECT	Major or LASC Elective	3
	Credits	10
Summer I		
BT-9XX	Graduate Level Elective	3
	Credits	3
Summer II		
BI-996	Thesis Research I (or BT-9XX Graduate Level Elective)	3
	Credits	3
Year Five		
Semester One		
BI-942	Biostatistical Analysis	3
or BI-943	or Experimental Design	
BI-9XX	Graduate Level Elective	3
Select One of the Following		
BI-996	Thesis Research I	3
BI-997	Thesis Research II	4
	Credits	13
Semester Two		
BI-998	Thesis Writing	2
BI-9XX:Graduate Level Elective 3		
BI-997	Thesis Research II (or BI-9XX Graduate Level Elective)	4
	Credits	9
	Total Credits	145-153

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/major or major/minor) to qualify for graduation. For more information, please view the MajorPlus section of this catalog.