

Biosystems Engineering Department B.S. in Biosystems Analytics & Technology

2025-2026 Catalog Year	120	units for the BAT BS
Course	Units	Prerequisites
1st Semester -- Fall, Freshman Year	15	
Introduction to Biosystems Analytics & Technology BAT 102	3	
First-Year Composition I	3	Writing placement
Introductory Biology I (MCB 181 R&L or PLS 240)	4	Math 120R or higher
Second Language - First Semester	4	Language placement
UNIV 101	1	
2nd Semester -- Spring, Freshman Year	17	
Basic Computer Skills for Office Applications (BAT 120)	3	
First-Year Composition II	3	
Introductory Biology II (ECOL182L, ECOL182R, or MIC 205A, MIC 205L)	4	
Second Language - Second Semester Proficiency	4	
Calculus I (MATH 122A/B* or MATH 125)	3	*Math 122a= 1 unit /122b= 4 units
3rd Semester -- Fall, Sophomore Year	14	
Introduction to Biosystems Analytics, Technology & Engineering (BAT 201, Fall only)	2	
Data Science (ISTA 116, or ESOC 214 or ISTA 130 or ISTA 131 or CSC 110)	3	
General Chemistry I (CHEM 151**, or CHEM 141 & 143, or CHEM 161 & 163)	4	**Satisfys GEN ED: Natural Scientist Gen ED requirement
Elective*	2	Approved by Advisor *students who complete MATH 122A and 122B do not need to complete this requirement
GE Core: Artist	3	
4th Semester -- Spring, Sophomore Year	16	
Engineering Analysis & Problem Solving (BAT 205, Spring only)	3	
Intro to Sensors & Controls or elective (BAT 247, Spring only)	3	
General Chemistry II (3 unit Lec + 1 unit Lab)	4	
Statistics (MATH 263 or BIOS 376 or AREC 239)	3	Cal I
GE Core: Humanist	3	
5th Semester -- Fall, Junior Year	15	
Introduction to Biosystems Analytics (BAT 310, Fall only)	3	
Additional Science (BIOC384 or BIOC 385 or ECOL 320 or MIC 205A & MIC 205L or RNR 384 or PHYS 102 or PHYS 141 or PHYS 161H or PHYS 181)	3	
Science Communication/Technical Writing (ALC 422 or ENGL 308*** or ENV5 408)	3	***ENGL 308 Also double dips as Building Connections
Elective or GE Core: Building Connections ***	3	***students who completed ENGL308 will complete an elective
GE Core: Social Scientist	3	
6th Semester -- Spring, Junior Year	14	
Internship (BE 493)	2	
Elective	3	
Elective	3	
Elective	3	
GE Core: Building Connections	3	
7th Semester -- Fall, Senior Year	16	
Careers and Professionalism (BAT 496A, Fall only)	1	
Applied Biostatistics (BAT 413 Fall only)	3	
Biosystems Analytics (BAT 434, Fall only)	3	
Elective	3	
Elective	3	
GE Core: Building Connections	3	
8th Semester -- Spring, Senior Year	13	
Senior Capstone (BAT 498, Spring only)	3	
Remote Sensing Data and Methods (BAT 485, Spring only)	3	
Elective	3	
Elective	3	
UNIV 301	1	