

**U.A. WHITAKER SCHOOL OF ENGINEERING
BACHELOR OF SCIENCE IN BIOENGINEERING
129 Credits**

Freshman Year					
Semester 1			Semester 2		
Course Number	Course Title	CR	Course Number	Course Title	CR
EGN 1006L	Intro to Engineering Prof.	1	EGN 1041C	Problem Solving & Design Engrs	2
ENC 1101	Composition I (W)	3	PHY 2048C	General Physics I	4
	Humanities*	3	MAC 2312	Calculus II	4
MAC 2311	Calculus I	4	ENC 1102	Composition II (W)	3
BSC 1010C	General Biology w/lab I	4	HUM 2510	Understanding Visual & Performing Arts	3
	Total	15		Total	16
Sophomore Year					
Semester 3			Semester 4		
Course Number	Course Title	CR	Course Number	Course Title	CR
EGM 3420C	Engineering Mechanics	4	EGN 3331C	Mechanics of Materials	3
MAC 2313	Calculus III	4	STA 2037	Statistics with Calculus	3
CHM 1045C	Gen Chemistry w/Lab I	4	MAP 2302	Diff Equations	3
PHY 2049C	General Physics II	4	CHM 1046C	Gen Chemistry w/Lab II	4
	Total	16		Total	13
Summer term					
	Social Science (recommend ECO 2023)	3			
	Social Science*	3			
	Humanities*	3			
	Total	9			
*One of these courses must be a writing course to satisfy the Gordon Rule (W).					
NOTE: Students must earn at least 9 semester hours by attending one or more summer sessions at a State University System member institution.					
Junior Year					
Semester 5			Semester 6		
Course Number	Course Title	CR	Course Number	Course Title	CR
EGN 3833C	Engineering Service Learning	2	EGN 3641C	Engineering Entrepreneurship	3
BME 3100C	Introduction to Biomaterials	3	BME 3404C	Human Physiology for Engineers II	3
BME 3403C	Human Physiology for Engineers I	3	EGN 3374C	Signals and Systems for Bioengineers	3
EGN 3373C	Circuits and Sensors for Bioengineers	3	BME 4800C	Bioengineering Product Design	3
CHM 2210C	Organic Chem w/Lab I	4	BME 3261C	Biofluid Mechanics	3
	Total	15		Total	15
Senior Year					
Semester 7			Semester 8		
Course Number	Course Title	CR	Course Number	Course Title	CR
EGN 4410L	Engineering Senior Design I	1	EGN 4411C	Engineering Senior Design II	3
BME 4632C	Biotransport Phenomena	3	BME 4504C	Bioelectricity	3
BME 4503C	Biomedical Instrumentation	3	BME 4722C	Health Care Engineering	3
BME 4211C	Biomechanics	3	IDS 3920	University Colloquium (W)	3
	CHM 2211C Organic Chem w/lab II or Technical Elective #1**	4		Technical elective #2**	4
	Total	14		Total	16

Total Hours = 129

Engineering common core - engineering courses
Engineering courses unique to B. S. in Bioengineering

** The Technical Electives must be approved by the Academic Advisor for engineering in consultation with the faculty.