College of Technology and Computer Science

Department of Engineering

B.S. in Engineering

Concentration in Bioprocess Engineering

Department Chair: Dr. Paul Kauffmann, kauffmannp@ecu.edu, 252-737-1026

Bioprocess engineering is one of the fastest growing segments of the economy. Bioprocess engineers design and develop equipment, methods, and systems for the efficient and environmentally sound manufacturing of medicines, vaccines, diagnostics, and biologically-based products.

Please note that this is a **recommended** sequence and should only be used as a guide.
Check the catalog for prerequisites. Course availability may vary from semester to semester.
Please contact ECU's Department of Engineering early in your community college track to ensure a smooth transition.

FRESHMAN YEAR

CC Equivalent	Fall Semester		CC Equivalent	Spring Semester	
DFT 170	ICEE 1012	2	EGR 150	ICEE 1014	3
MAT 271	MATH 2151	3	CSC 134, 136, or 151	ICEE 2050	3
BIO 111	BIOL 1100/1101	4	ENG 112, 113, or 114	ENGL 1200	3
	Humanities/Fine Arts	3	MAT 272	MATH 2152	3
ENG111	ENGL 1100	3	CHM 151*	CHEM 1500	3
			HEA 110	HLTH 1000	2
		15			17

SOPHOMORE YEAR

	ICEE 3300	3	EGR 220	ICEE 2022	3
MAT 273	MATH 2153	3	EGR 230	ICEE 2070	3
PHY 251	PHYS 2350	4	MAT 285**	MATH 2154	4
CHEM 152*	CHEM 1510/1511	1, 1		MATH 3307	3
ECO 251	ECON 2113	3	PHY 252	PHYS 2360	4
PED 110	EXSS 1000	1			
		16			17

JUNIOR YEAR

EGR 225	ICEE 3004	3		ICEE 3012	4
EGR 213	ICEE 3014	3		ICEE 3050	3
EGR 228	ICEE 3024	3		ICEE 3400	3
	CHEM 2650/2651	4,1		BIOE 3000	3
BIO 275	BIOL 2110	3		Social Science	3
		17			16

SENIOR YEAR

	ICEE 4010	2		ICEE 4020	2
	BIOE 4000	4		BIOE 4020	3
	BIOE 4010	3		Engineering Elective	3
	PHIL 2275	3		Social Science	3
	Humanities/Fine Arts	2		Social Science	3
	Humanities/Fine Arts	2			
		16			14

Notes:

It is the responsibility of the student to meet all General Ed Requirements for this degree. The requirements are listed in the ECU undergraduate Catalog. If you have questions contact the Department of Engineering advisor.

As with any transfer credits, 100% match-up of course content is not always possible. In any event, if a student is given credit for a transfer courses, that student will be required to learn any concepts/skills that were missed.

* - CHM 151 and CHM 152 must be substituted for CHEM 1500/1510/1511 for the Bioprocess and Biomedical Engineering concentrations.

** - MAT 285 may be substituted for MATH 2151 if the MAT 271/272/273/285 sequence was completed before transferring to ECU.

Admission into the Department of Engineering for Transfer Students

Students transferring to the engineering program must have an overall GPA of 2.5 or better in all course work attempted at the college(s) from which they are transferring in addition to meeting university transfer requirements. Students who have completed an associate degree from an approved pre-engineering program will be directly admitted to the BS program. Transfer students who do not have a 2.5 or better GPA are individually evaluated and the complete academic record is examined with particular emphasis on performance in math and science classes. These students may be admitted on a provisional basis and permitted to take certain engineering courses based on a case-by-case assessment. Provisional transfer students are expected to demonstrate the ability to succeed by completing their first semester at ECU with a 2.5 GPA.

Revised: August 2007