

BIOENGINEERING UNDERGRADUTE CURRICULUM 2007-2009

(FOR STUDENTS ENTERING PROGRAM IN FALL 2007 & FALL 2008)

Bold Courses are the core courses in Bioengineering

FRESHMAN YEAR

Fall

MATH 0220	Analytc Geometry & Calu 1	4
PHYS 0174	Basc Phys Sci & Engr 1	4
CHEM 0960	General Chemistry for Engr 1	3
ENGR 0011	Intro to Engr Analysis	3
Humanities/Social Science Elective course		3
Freshman Seminar		<u>0</u>
		17

Spring

MATH 0230	Analytc Geometry & Calu 2	4
PHYS 0175	Basc Phys Sci & Engr 2	4
CHEM 0970	General Chemistry for Engr 2	3
ENGR 0012	Intro to Engr Computing	3
Humanities/Social Science Elective course		3
Freshman Seminar		<u>0</u>
		17

SOPHOMORE YEAR

Fall

MATH 0240	Analytc Geometry & Calu 3	4
MATH 0280	Intro Matrices & Lin. Algebra	3
BIOENG 1070	Cell Biology I	3
BIOSC 0050	Biology I lab	1
CHEM 0310	(Organic Chemistry I)	3
CHEM 0330	(Organic Chemistry I lab)	1
ENGR 0135	Statics & Mech of Materials 1	3
BIOENG 1085	Seminar	<u>0</u>
		18

Spring

MATH 0290	Differential Equation	3
BIOENG 1071	Cell Biology II	3
BIOENG 1210	Biothermodynamics	3
BIOENG 1630	Mech Prin in Bio Sys.¹	3
BIOENG 1310	Lin. Systems & Electronics I	3
BIOENG 1085	Seminar	<u>0</u>
		15

¹For students in pre-med or the "Cellular and Medical Product Engineering" Concentration, Organic Chemistry II (CHEM 0320) should be taken during the Spring semester. Mechanical Principles (BIOENG 1630) can be moved to the Spring semester of the Junior year.

JUNIOR YEAR

Fall

BIOENG 1320	Lin. Sys. & Electronics II	3
BIOENG 1220	Bio-transport Phenomena	3
BIOSC 1250	Human Physiology	3
BIOENG 1002	Bioengineering Internship²	3
Concentration course		3
Humanities/Social Science Elective course		3
BIOENG 1085	Seminar	<u>0</u>
		18

Spring

BIOENG 1255	Dynamics Systems	4
BIOENG 1330	Biomedical Imaging	3
BIOENG 1150	Bioengineering Methods Lab	3
Concentration course		3
Humanities/Social Science Elective course		3
BIOENG 1085	Seminar	<u>0</u>
		16

²Bioengineering Internship (BIOENG 1002) may be taken during the Fall and Spring semesters.

SENIOR YEAR

Fall

BIOENG 1160	Bioengineering Design I	3
ENGR 0020	(Statistics) ³	4
Concentration course		3
Engineering/Science Elective course		3
Humanities/Social Science Elective course		3
BIOENG 1085	Seminar	<u>0</u>
		16

Spring

BIOENG 1161	Bioengineering Design II	3
Concentration course		3
Concentration course		3
Engineering/Science Elective course		3
BIOENG 1241	Bioethics	3
BIOENG 1085	Seminar	<u>0</u>
		15

³Engineering 0020 is offered in all three semesters and can be taken at any time during the sophomore, junior and senior years.

Engineering students must have a minimum of 3 engineering courses out of the 7 non-core courses.
(5 concentration courses and 2 engineering/science electives)