

Bioengineering Four Year Academic Plan - Updated Sp16

Name: _____

UID: _____

Year 1	Fall		
Gateway requirements include: ENGL 101, CHEM 135, MATH 141, PHYS 161 and an approved Distributive Studies course. (Directly admitted freshman must pass and complete these courses and ENES 100 by 45 UM credits.)	Course	Credit	Grade
	ENES 102	3	
	CHEM 135	3	
	CHEM 136	1	
	MATH 140 (AR)	4	
	BIOE 120	3	
	BIOE 121	1	
	Total	15	

Spring		
Course	Credit	Grade
ENES100 (SP)	3	
MATH 141	4	
PHYS 161 (NS)	3	
Humanities (HU)*	3	
ENGL 101 (AW)	3	
Total	16	

Year 2	Fall		
	Course	Credit	Grade
	CHEM 231	3	
	CHEM 232	1	
	PHYS 260 and PHYS 261 (NL)	3 & 1	
	MATH 241	4	
	BIOE 241	3	
	Humanities (HU)*		
	Total	18	

Spring		
Course	Credit	Grade
BIOE 232	3	
BIOE 371	3	
Bio. Science Elective I (BSCI 2xx)	4	
MATH 246	3	
Hist & Social Sciences (HS)*	3	
BIOE 221	1	
Total	17	

Year 3	Fall		
	Course	Credit	Grade
	BIOE 331	3	
	BIOE 372	3	
	BSCI 330	4	
	BIOE Foundational I	4	
	BIOE Elective I	3	
	Total	17	

Spring		
Course	Credit	Grade
BIOE 340	4	
BIOE 457	4	
BIOE Foundational II	3	
BIOE Elective II	3	
Scholarship in Practice (SP)*	3	
Total	17	

Year 4	Fall		
	Course	Credit	Grade
	BIOE 485	3	
	BIOE Elective III	3	
	Breadth Elective	3	
	ENGL 393 (PW)	3	
	Oral Communication (OC)	3	
Total	15		

Spring		
Course	Credit	Grade
BIOE 486	3	
BIOE Elective IV	3	
Bio. Science Elective II	3	
I-Series (IS)	3	
Hist & Social Sciences (HS)*	3	
Total	15	

*All students must complete two Distributive Studies courses that are approved for I-series courses. The Understanding Plural Societies (UP) and Cultural Competence (CC) courses may also fulfill Distributive Studies categories.

NAME: _____

BIOENGINEERING

UID: _____ A.A. A.S. Post-Bac

GENERAL EDUCATION REQUIREMENTS			
Fundamental Studies			
Academic Writing (AW)	ENGL 101		3
Professional Writing (PW)	ENGL 393		3
Oral Communication (OC)			3
Distributive Studies			
History/Social Sciences (HS*)			3
History/Social Sciences (HS*)			3
Humanities (HU*)			3
Humanities (HU*)			3
Scholarship in Practice (SP*) out of major			3
I-Series Courses			
I-Series (IS*)			0/3
I-Series (IS*)			0/3
Diversity			
Understanding Plural Societies (UP*)			0/3
Understanding Plural Societies (UP*) OR Cultural Competency (CC*)			0/3
MAJOR REQUIREMENTS			
Basic Sciences			
CHEM 135-Chem Engr OR 131 & 134 -Fund & Prin			3/3&1
CHEM 136 - Chemistry Lab for Eng			1
CHEM 231 and 232 - Organic Chemistry I & Lab			3 & 1
PHYS 161 - General Physics I (NS)			3
PHYS 260 and PHYS 261 - Gen Physics II & Lab (NL)			3 & 1
BSCI 330 – Cell Biology and Physiology			4
MATH 140 - Calculus I (MA/AR)			4
MATH 141 - Calculus II			4
MATH 241 - Calculus III			4
MATH 246 - Differential Equations			3
Engineering Sciences			
ENES 100 - Intro to Eng Design (SP)			3
ENES 102 - Mechanics I			3

MAJOR REQUIREMENTS**		
BIOE 120 - Biology for Engineers		3
BIOE 121 - Biology for Eng Lab		1
BIOE 221 – Intro to Bioengineering Major		1
BIOE 232 – Biological Thermodynamics		3
BIOE 241 - Biocomputational Methods		3
BIOE 331 - Biofluids		3
BIOE 340 - Modeling Phys. & Lab		4
BIOE 371 -		3
BIOE 372 – Biostatistics		3
BIOE 457 - Biomedical Elect. & Instrumentation		4
BIOE Foundational I		3
BIOE Foundational II		3
BIOE Elective I		3
BIOE Elective II		3
BIOE Elective III		3
BIOE Elective IV		3
BIOE 485 - Capstone I		3
BIOE 486 - Capstone II		3
Technical Requirements		
Biological Science Elective I (BSCI 2xx)**		4
Biological Science Elective II **		3
Breadth Elective **		3

* May satisfy more than one requirement. See www.gened.umd.edu
 ** See Bioengineering Advisor for appropriate electives: www.bioe.umd.edu

Requirements for Graduation:
<input type="checkbox"/> Final 30 credits must be earned at UMD
<input type="checkbox"/> 15 of the final 30 credits must be earned at the 300-400 level 12
<input type="checkbox"/> of the final 30 credits must be upper level major coursework
<input type="checkbox"/> A minimum 2.00 cumulative UM GPA and satisfactory completion of all degree requirements are required for graduation
<input type="checkbox"/> Students matriculating after Fall 2012 must have a 2.0 minimum GPA for all degree requirements, minor requirements, and undergraduate certificate requirements (<i>Major courses are defined as: departmental courses, basic sciences, engineering sciences, specified degree tracks, technical requirements/ technical electives and ENGL 393</i>)
<input type="checkbox"/> A minimum of 120 credits is required to earn the degree

For Degree Clearance Only	
Degree: B.S. BIOE	Advisor: _____
Date: _____	GPA/Credits: _____