

GEORGE MASON UNIVERSITY
THE VOLGENAU SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING
B.S. DEGREE IN BIOENGINEERING (3800 Nguyen Engineering Building, 703-993-4190)
<http://bioengineering.gmu.edu/>
2014-2015 CATALOG

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<u>MASON CORE REQUIREMENTS (24)</u>			
a.	Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)	_____	_____
b.	Oral Communication: COMM 100 (3)	_____	_____
c.	Quantitative Reasoning (satisfied by completion of major requirements)	_____	_____
d.	Literature (3)	_____	_____
e.	Arts (3)	_____	_____
f.	Western Civilization (HIST 100, 125, or acceptable transfer course)	_____	_____
g.	Social & Behavioral Science: ECON 103 (3)	_____	_____
h.	Natural Science (satisfied by completion of major requirements)	_____	_____
i.	Global Understanding (3)	_____	_____
j.	Information Technology (satisfied by completion of major requirements)	_____	_____
k.	Synthesis (satisfied by completion of major requirements)	_____	_____

Go to: <http://provost.gmu.edu/gened/general-education-requirements/> to link to information on Mason Core requirements.

BIOENGINEERING, MATHEMATICS, COMPUTER SCIENCES, AND BASIC SCIENCES (71-72)

a.	BENG 101, BENG 220 (3,3)	a. _____	_____
b.	BENG 301, BENG 302 (3,1)	b. _____	_____
c.	BENG 304, BENG 320 (3,3)	c. _____	_____
d.	BENG 380, BENG 381 (3,1)	d. _____	_____
e.	BENG 491, BENG 492 (1,2)	e. _____	_____
f.	BENG 493, BENG 495 (2,1)	f. _____	_____
g.	BIOL 213 & BIOL 425 or BIOL 430 or BENG 313 (4,3-4)	g. _____	_____
h.	CS 112, ENGR 107 (4,2)	h. _____	_____
i.	MATH 113, MATH 114 (4,4)	i. _____	_____
j.	MATH 213, MATH 214 (3,3)	j. _____	_____
k.	MATH 203 (3)	k. _____	_____
l.	PHYS 160, PHYS 161 (3,1)	l. _____	_____
m.	PHYS 260, PHYS 261 (3,1)	m. _____	_____
n.	STAT 344 (3)	n. _____	_____
o.	CHEM 251 (4)	o. _____	_____

Concentrations (25-27)

a.	Biomedical Signals and Systems (25)		
1.	BENG 420, BENG 425 (3,3)	1. _____	_____
2.	ECE 301 and one of the following: CS 211, CS 222 (circle choice) (3,3)	2. _____	_____
3.	PHYS 262, PHYS 263 (3,1)	3. _____	_____
4.	Nine credits of Technical Electives chosen from the following (circle choices): BENG 341, 390, 392, 395, 406, 441, 451, 499, 525, 538; ECE 305, 410, 421, 450 (Students may choose to substitute one of the three credit technical electives with one of the following: BIOL 305/306, CHEM 313/315, CS 310, CS 444, CS 445, NEUR 327, PSYC 372)		
b.	Bioengineering Healthcare Informatics (27)		
1.	BENG 322, BENG 420 (3,3)	1. _____	_____
2.	HAP 301, HAP 360 (3,3)	2. _____	_____
3.	CS 222, IT 214 (3,3)	3. _____	_____
4.	Nine credits of Technical Electives chosen from the following (circle choices): BENG 341, 390, 392, 395, 406, 441, 451, 499, 525, 538; ECE 305, 410, 421, 450 (Students may choose to substitute one of the three credit technical electives with one of the following: BIOL 305/306, CHEM 313/315, CS 310, CS 444, CS 445, NEUR 327, PSYC 372)		

Students must complete each BENG, BIOL, ECE and ENGR course presented as part of the required credits for the degree with a grade of C or better.

MINIMUM HOURS TO GRADUATE: 120-123

UPPER DIVISION HOURS (minimum 45): Satisfied by required courses.

TRANSFER COURSES WITH "L" IN "EQUIVALENCIES" DO NOT CONTRIBUTE TO THE REQUIRED 45 HOURS.

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2014-2015 Catalog; the University Catalog is the official reference for program requirements

Course Lists (Bioengineering)

Mason Core Requirements

Written Communication: ENGH 101 (or 100) and ENGH 302

Oral Communication: COMM 100

Quantitative Reasoning: **MATH 113**. The Math Placement Test is required to take a MATH course. See this web site for more information: http://math.gmu.edu/placement_test.htm

Literature: ARAB 325; CHIN 310, 311, 325, 328; CLAS 250, 260, 340, 350, 360, 380; ENGH 201, 202, 203, 204; FREN 325, 329; FRLN 330; GERM 325; ITAL 320, 325; JAPA 340; PHIL 253; RELI 235; RUSS 325, 326, 327; SPAN 325

Arts: ARTH 101, 102, 103, 200, 201, 203, 204, 321, 322, 324, 333, 334, 335, 340, 341, 342, 344, 345, 360, 362, 370, 372, 373, 376; AVT 103, 104, 215, 222, 232, 243, 252, 253, 262, 272; DANC 101, 119, 125, 131, 145, 161, 225, 231, 245, 301, 354, 445, 390, 391; ENGH 370, 372, 396; FAVS 225; GAME 101; MUSI 100, 101, 102, 107, 280, 301, 302, 380, 381, 382, 383, 384, 385, 387, 389, 485; PHIL 156; THR 101, 150, 151, 210, 230, 395, 411, 412.

Western Civilization: HIST 100 or 125; transfer students may substitute: the following courses for HIST 100: HIST 101, 102, 301, 302, 304, 305, 306, 308, 309, 312, 314, 322, 388, 435, 436, 480; and the following courses for HIST 125: HIST 202, 387.

Social and Behavioral Sciences: **ECON 103**

Natural Sciences: PHYS 160/161 & 260/261; BIOL 213; CHEM 251

Global Understanding: ANTH 302, 304, 306, 307, 308, 309, 311, 312, 313, 316, 331, 332, 385; ARTH 319, 320, 380, 382, 383, 384, 385, 386; CEIE 100; COMM 305, 456; CRIM 405; DANC 118, 318, 418; ECON 360, 361, 362, 380, 390; ENGH 362, 366; GCH 205; GGS 101; GLOA 101; GOVT 132, 133; HIST 130, 251, 252, 261, 262, 271, 272, 281, 282, 328, 329, 356, 358, 360, 364, 365, 387, 460, 462; JAPA 310; MSOM 305; MUSI 103, 431; PHIL 243; PSYC 379; RELI 100, 211, 212, 313, 315, 341, 374; RUSS 354; SOCI 120, 320, 332; SPAN 322; SYST 202; THR 359, TOUR 210; WMST 100

Information Technology: CS 112 and ENGR 107

Synthesis: **BENG 492 and 493**