

**GEORGE MASON UNIVERSITY
VOLGENAU SCHOOL OF ENGINEERING
B.S. DEGREE IN BIOENGINEERING
(BIOENGINEERING HEALTHCARE INFORMATICS CONCENTRATION)
(3800 Nguyen Engineering Building, 703-993-4190)
<http://bioengineering.gmu.edu/>
2017-2018 CATALOG**

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<u>MASON CORE REQUIREMENTS (21)</u>			
a. Written Communication: ENGH 101 (100), ENGH 302 Natural Science or Multi Sections Only (C or better) (3,3)			
b. Oral Communication: COMM 100 or 101 (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 and Behavioral Science: Choose one of the following: ECON 103 (3), PSYC 100 (3), or SOCI 101 (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://catalog.gmu.edu/mason-core/> to link to information on Mason Core requirements.

BIOENGINEERING, MATHEMATICS, COMPUTER SCIENCES, AND BASIC SCIENCES (74 hours)

Bioengineering (29 hours)			
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 420 (3)		e. _____	_____
f. BENG 491, BENG 492 (1,2)		f. _____	_____
g. BENG 493, BENG 495 (2,1)		g. _____	_____
Biology (7 hours)			
h. BIOL 213 & BENG 313 (4,3)		h. _____	_____
Computer Science (7) & Engineering (3)			
i. CS 112 (4), and 211 (3) OR CS 222 (3); ENGR 107 (4,2)		i. _____	_____
Math and Statistics (20 hours)			
j. MATH 113, MATH 114 (B- and above)(4,4)		j. _____	_____
k. MATH 213, MATH 214 (B- and above) (3,3)		k. _____	_____
l. MATH 203 Bioengineering section only (3), STAT 344 (3)		l. _____	_____
Physics (8)			
m. PHYS 160, PHYS 161 (3,1)		m. _____	_____
n. PHYS 260, PHYS 261 (3,1)		n. _____	_____

Bioengineering Healthcare Informatics Concentration (28)

a. CHEM 251 (4) or CHEM 211/213 (3,1)		a. _____	_____
b. BENG 322 (3) or HAP 436 (3)		b. _____	_____
c. HAP 301, HAP 360 (3,3)		c. _____	_____
d. IT 214 (3) or HAP 361 (3)		d. _____	_____

f. Nine credits of Technical Electives chosen from the following (circle choices): BENG 341, 390, 392, 395, 406, 421, 437, 441, 451, 499, 525, 538, 541, 550; ECE 305, 350, 370, 410, 421, 450; ME 313 (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 123 HOURS (including Minimum 45 UPPER DIVISION HOURS) to GRADUATE

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2017-2018 Catalog; the University Catalog is the official reference for program requirements.

Course Lists (Bioengineering, Health Informatics)

Mason Core Requirements

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

Oral Communication: COMM 100 or 101

Quantitative Reasoning: MATH 113. (The Math Placement Test is required to take MATH 113. See this web site for more information: http://math.gmu.edu/placement_test.php)

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; KORE 311; PHIL 253; RELI 235, 333; RUSS 325, 326, 327; SPAN 325

Arts: ARTH 101, 102, 103, 200, 201, 203, 204, 206, 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, 385; DANC 101, 119, 125, 131, 145, 161, 225, 231, 245, 301, 325, 331, 345, 425, 445, 390, 391; ENGH 370, 371, 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, 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, 306, 307, 308, 309, 312, 313, 316, 331, 332, 382; ARTH 319, 320, 382, 383, 384, 385, 386; BUS 200; CEIE 100; COMM 305, 456; CRIM 405; DANC 118, 318, 418; ECON 360, 361, 362, 380, 390; ENGH 362, 366; FAVS 300; FRLN 331; GCH 205; GGS 101; GLOA 101; GOVT 132, 133; HIST 251, 252, 261, 262, 271, 272, 281, 282, 328, 329, 356, 357, 358, 360, 364, 365, 387, 460, 462; JAPA 310; MBUS 305; MUSI 103, 431; PHIL 243; PROV 105; PSYC 379; RELI 100, 211, 212, 313, 315, 320, 322, 341, 374; RUSS 354; SOCI 120, 320, 332; SPAN 322, 466; SYST 202; THR 359, TOUR 210; WMST 100

Information Technology: CS 112 and ENGR 107

Synthesis: BENG 492 and 493