

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE**

**B.S. DEGREE IN BIOLOGY-CONCENTRATION IN BIOTECHNOLOGY AND MOLECULAR BIOLOGY
(3005 David King Hall, 703-993-1050)**

<http://cos.gmu.edu/academics/undergraduate/majors/biology>

2011-2012 CATALOG

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<u>GENERAL EDUCATION REQUIREMENTS (27)</u>			
a.	Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)	_____	_____
b.	Oral Communication: COMM 100 or 101 (please circle choice) (3)	_____	_____
c.	Quantitative Reasoning (satisfied by completion of major requirements)		
d.	Literature (3)	_____	_____
e.	Arts (3)	_____	_____
f.	Western Civilization (3)	_____	_____
g.	Social & Behavioral Science (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 (3)	_____	_____

Go to: <http://chss.gmu.edu/general-education/all-requirements> to link to information on general education requirements.

MAJOR REQUIREMENTS (76-77)

a.	Twenty-two credits in biology core courses (22)		
	1. BIOL 213 (4) (grade of C or better required)	1. _____	_____
	2. BIOL 214 (4) (grade of C or better required)	2. _____	_____
	3. BIOL 311 (4) (grade of C or better required)	3. _____	_____
	4. BIOL 308 (writing intensive course) (5) (grade of C or better required)	4. _____	_____
	5. BIOL 310 (5) (grade of C or better required)	5. _____	_____
b.	Eleven credits in biotechnology courses (11)		
	1. BIOL 305 (3)	1. _____	_____
	2. BIOL 306 (1)	2. _____	_____
	3. BIOL 385 (3)	3. _____	_____
	4. BIOL 483 (4)	4. _____	_____
c.	Eleven credits chosen from: BIOL 402 (3), 403*(1), 405 (4), 406 (4), 411 (3), 417**(1-4), 418**(3), 420 (3), 421 (3), 422 (3), 452 (3), 453* (1), 482 (3), 484 (3), 486 (2), 497**(1-4) (circle choices) (11)		
	*BIOL 403 must be taken with BIOL 402 and BIOL 453 must be taken with BIOL 452.		
	**Registration for BIOL 417, 418 or 497 subject to approval by program coordinator.		
d.	Eighteen credits of chemistry (18)		
	1. CHEM 211, CHEM 212 (4,4)	1. _____	_____
	2. CHEM 313, CHEM 315 (3,2)	2. _____	_____
	3. CHEM 315, CHEM 318 (3,2)	3. _____	_____
e.	PHYS 243/244 and PHYS 245/246 (3/1, 3/1)	e. _____	_____
f.	One course from (circle choice): MATH 111 (3), 113 (4), 114 (4)	f. _____	_____
h.	IT 103 or CDS 130 (circle choice) (3)	h. _____	_____

Students must earn a minimum grade of C in all Biology core courses and a minimum GPA of 2.0 in biology course work and supporting courses. No more than eight hours of 100-level BIOL courses may be applied to toward the required BIOL courses.

GENERAL ELECTIVES (List courses)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

MINIMUM HOURS TO GRADUATE: 120

UPPER DIVISION HOURS (minimum 45):

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2011-2012 Catalog; the University Catalog is the official reference for program requirements.

COURSE LISTS (BIOLOGY, BS, CONCENTRATION IN BIOTECHNOLOGY AND MOLECULAR BIOLOGY)

University General Education Requirements

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

Oral Communication: COMM 100 or COMM 101

Quantitative Reasoning: MATH 111 or 113 (The Math Placement Test is required to take a MATH course. See this web site for more information: http://cos.gmu.edu/academics/undergraduate/math_placement_testing)

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 325; 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, 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, 390, 391; ENGH 372, 396; MUSI 100, 101, 102, 107, 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 or 125: HIST 101, 102, 301, 302, 304, 305, 306, 308, 309, 314, 321, 322, 388, 435, 436, 480.

Social and Behavioral Sciences: AFAM 200; ANTH 114, 120, 135, 396; CONF 101; CONS 410; CRIM 100; ECON 100, 103, 104, 105, 110, 111 (110 and 111 must be taken together); EDUC 372; GGS 103; GOVT 101, 103; HEAL 230; HIST 121, 122; LING 326; PSYC 100, 211, 231; SOCI 101; SOM 100; TOUR 311; WMST 200

Natural Sciences: CHEM 211 & 212

Global Understanding: ANTH 302, 304, 306, 307, 308, 309, 311, 312, 313, 331, 332, 385; ARTH 319, 320, 380, 382, 383, 384, 385, 386; CEIE 100; COMM 305, 456; CRIM 405; DANC 118, 318; 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; PSYC 379; RELI 100, 211, 212, 313, 315, 341, 374; RUSS 354; SOCI 120, 320, 332; SPAN 322; SYST 100; THR 359, TOUR 210; WMST 100

Information Technology: IT 103 or CDS 130

Synthesis: ANTH 400; ARTH 394; AVT 497, 498; BINF 354; BIOL 301; BIS 490; CEIE 490; COMM 326, 362, 454; CONF 490; CONS 490; CRIM 495; CS 306; DANC 490; ECE 447, 492, 493; ECON 309; EDCI 490; ENGH 305; EVPP 335; FAVS 352; FRLN 385; GEOL 420; GGS 303, 304; GOVT 490, 491; HAP 465; HIST 300, 499; IT 492; LAS 499; MATH 400; MUSI 490; NCLC 308; PHIL 309, 343, 377, 378; PSYC 405, 406; RELI 490; RUSS 353; SOCI 377, 483; SOCW 323, SOM 498; SPAN 388; SYST 495; THR 440, 496; PROV 342; UNIV 442