

**GEORGE MASON UNIVERSITY  
COLLEGE OF SCIENCE**

**B.S. DEGREE IN BIOLOGY-CONCENTRATION IN MICROBIOLOGY (3005 D. King Hall, 993-1050)**

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

**2011-2012 CATALOG**

	<u>Department(s) &amp; Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<b>GENERAL EDUCATION REQUIREMENTS (27)</b>			
a. Composition: ENGH 101 (100), 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. Sixteen credits of microbiology courses (16)			
1. BIOL 305 (3)		1. _____	_____
2. BIOL 306 (1)		2. _____	_____
3. BIOL 405 (4)		3. _____	_____
4. BIOL 406 (4)		4. _____	_____
5. BIOL 407 (4)		5. _____	_____
c. Six credits chosen from: BIOL 385 (3), 402 (3), 403 (1), 404 (3), 418 (3), 420 (3), 452 (3), 453 (1), 459 (3), 483 (4) (circle choices) (11)			
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 and supporting courses.

**GENERAL ELECTIVES (List courses)**

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

**MINIMUM HOURS TO GRADUATE: 120**

<b>UPPER DIVISION HOURS (minimum 45):</b>
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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 MICROBIOLOGY)

## 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](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