GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE
B.S. DEGREE IN MATHEMATICS (201C Planetary Hall, 703-993-1488)
http://math.gmu.edu/undergraduate/index.html
2012-2013 CATALOG

GENERAL EDUCATION REQUIREMENTS (30)
a. Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)
b. Oral Communication: COMM 100 or 101 (circle choice) (3)
c. Literature (3) d. Arts (3)
e. Western Civ. (3) f. Social/Behavioral Science (3)
g. Global Understanding (3)
h. Information Technology (3) (may be satisfied by completion of CS 112 plus the ethics component)
i. Synthesis (3)

MINIMUM HOURS TO GRADUATE: 120

MAJOR REQUIREMENTS (47-56 hours required)
a. MATH 113, MATH 114 (4,4)
b. MATH 203; MATH 214 or MATH 216 (circle choice) (3,3)
c. MATH 213 or MATH 215 (circle choice) (3)
d. MATH 290 (writing intensive course), MATH 322 (3,3)
e. Twenty-four hours of additional mathematics for Traditional Mathematics (24)
   1. MATH 125, MATH 315 (3,3)
   2. MATH 316; MATH 321 or MATH 431 (circle choice) (3,3)
   3. Twelve hours of additional mathematics courses; numbered above MATH 300 (excluding MATH 400) (list course #) (12)
      a. MATH____ b. MATH____ c. MATH____ d. MATH____
   f. CS 112 (4)

CONCENTRATIONS (Optional)
Students may select an optional concentration in applied mathematics, actuarial mathematics, mathematical statistics, or education. Students selecting a concentration take the courses listed below instead of the 24 credits for Traditional Mathematics.

1. Applied Mathematics Concentration (24)
a. MATH 125 (3), MATH 315 (3), MATH 351 (3), MATH 413 (3), MATH 414 (3), MATH 446 (3)
b. Six hours of additional mathematics courses; numbered above MATH 300 (excluding MATH 400) (list course #) (6)
   1. MATH ______ 2. MATH ______

2. Actuarial Mathematics Concentration (24)
a. MATH 351 (3); MATH 352 (3); MATH 441 (3); MATH 442 or MATH 446 (3); MATH 551 (3); MATH 554 (3); MATH 555 (3); MATH 556 (3)

3. Education Concentration (39)
a. MATH 125 (3), MATH 302 (3), MATH 315 (3), MATH 321 (3), MATH 351 (3)
b. EDCI 372 (3), EDCI 483 (3), EDUC 372 (satisfies Social Behavioral Sciences) (3), EDUC 422 (3),
   EDCI 490 (satisfies Synthesis) (6), EDRD 419 (3)
c. One 3-credit MATH course above MATH 300 (not 400) (list course #) (3) MATH____

4. Mathematical Statistics (27)
a. MATH 125 (3), MATH 315 (3), MATH 351 (3), MATH 352 (3), MATH 453 (3), MATH 551 (3), STAT 362 (3)
b. Two of the following (circle choices): STAT 455 (3), STAT 457 (3), STAT 463 (3), STAT 474 (3)

OTHER REQUIREMENTS (16-24 hours required)
a. For All Students: A one-year of laboratory science sequence chosen from the following:
   1. PHYS 160, 161, 260, 261 (3,1, 3,1)
   2. CHEM 211, 212 (8)
   3. GEOL 101, 102 (8)
   1. ______ ______ ______
   2. ______ ______
   3. ______ ______
b. For Applied Concentration, Education Concentration, Mathematical Statistics or no concentration: One of the following three options:
   1. A second sequence for the list above
   2. PHYS 262, 263 (3,1)
   3. 6 credits from more advanced courses in chemistry, geology, or physics (but only courses acceptable for credit toward
      a natural science major)
   1. ______ ______
   2. ______ ______
   3. ______ ______
c. For Actuarial Concentration:
   1. ACCT 203, STAT 362 (3,3)
   2. ECON 103 & either ECON 306, ECON 310, or FNAN 321 (circle choice) (3,3)
   1. ______ ______
   2. ______ ______

No more than six hours of C- or D in MATH permitted in the major.

GENERAL ELECTIVES (12-23) (A two-year proficiency in either French, German, or Russian is recommended)

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 2012-2013 Catalog; the University Catalog is the official reference for program requirements.
University General Education Requirements

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

Oral Communication: COMM 100 or COMM 101

Quantitative Reasoning: MATH 113. The Math Placement Test is required to take MATH 113. 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


Western Civilization: HIST 100 or 125; transfer students may substitute the following courses for HIST 100 or 125: HIST 101, 102, 202, 301, 302, 304, 305, 306, 308, 309, 314, 322, 387, 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, 367; HEAL 230; HIST 121, 122; LING 306; PSYC 100, 211, 231; SOCI 101; SOM 100; TOUR 311; WMST 200

Natural Sciences: CHEM 211, 212; GEOL 101,102; PHYS 160/161,260/261

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; GOA 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; MUSI 431; PHIL 112; 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: One of these courses: ANTH 395, CDS 130, CHEM 350, CEIE 117, GOVT 300, IT 103, MUSI 415 or Course(s) from a) and one course from b): a) AVT 180; CS 112; PHYS 251; PSYC 300, 301, & 372 (all three must be taken and in sequence); SOCI 410 b) CDS 151, CS 105, ENGR 107, ENGR 401, IT 304, PHIL 112

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; EDCL 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; NURS 265; 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