

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE**

B.S. DEGREE IN EARTH SCIENCE (3450 Exploratory Hall, 703-993-3395)

<https://cos.gmu.edu/aoes/academics/undergraduate-programs/>

2016-2017 CATALOG

	<u>Department(s) & Course #(s)</u>	<u>Grade(s)</u>	<u>Needed</u>
<u>MASON CORE REQUIREMENTS (*30)</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 (3)		_____	_____
k. Synthesis (3)		_____	_____

Go to: <http://masoncore.gmu.edu/> to link to information on Mason Core requirements.

CORE SCIENCE and MATHEMATICS (40-41 hours required)

a. CHEM 211/213, CHEM 212/214 (3/1,3/1)	a.	_____	_____
b. STAT 250, GEOL 101 (3, 4)	b.	_____	_____
c. BIOL 309 or GEOL 309 (circle choice) (3)	c.	_____	_____
d. GEOL 406 or GEOL 420 (circle choice) (3)	d.	_____	_____
e. MATH 113, MATH 114 (4, 4)	e.	_____	_____
f. *PHYS 243/ 244, PHYS 245/ 246 (3/1, 3/1) or PHYS 160/161, PHYS 260/261 (3/1, 3/1)	f.	_____	_____
g. CLIM 111/112 (3/1) or PHYS 111/112 (3/1) or GGS 309 (3) (circle choice)	g.	_____	_____

*Students in the Atmospheric Science Concentration must take the PHYS 160,161, 260, 261 sequence.

CONCENTRATION Select one of the following: (29-50)

- a. Earth Surface Processes (31-36)
 - 1. GEOL 102 or EVPP 110 (4), 2. GEOL 302 (4), 3. GEOL 303 (3), 4. GEOL 306 (3), 5. GEOL 317 (4) 6. GGS 311 (3), 7. Ten to fifteen credits from the following (circle choices): GEOL 304 (4), GEOL 305 (3), GEOL 313 (3), GEOL 315 (1-3), GEOL 363 (4), GEOL 401 (4), GEOL 403 (3), GEOL 417 (3),
- b. Environmental Geoscience (35-41)
 - 1. GEOL 102 (4), 2. GEOL 302 (4), 3. GEOL 305 (3), 4. GEOL 306 (3), 5. GEOL 313 (3), 6. GEOL 320 (3), 7. GEOL 321 (3), 8. GEOL 403 (3) or CHEM 427 (3), 9. EVPP 336 (3) or EVPP 361 (3), 10. 6-12 credits from: CLIM 101 (3), CLIM 412 (3), CONF 101 93), EVPP 201 (3), EVPP 336 (3), EVPP 361 (3), EVPP 432 (3), EVPP 436 (3), GEOL 304 (4), GGS 302 (3), GGS 311 (3), GGS 322 (3), INTS 211 (3-6) PHYS 331 (3), PRLS 300 (3), PRLS 402 (3)
- c. Geology (34)
 - 1. GEOL 102 (4), 2. GEOL 302 (4) 3. GEOL 304 (4), 4. GEOL 308 (4) 5. GEOL 312 (4), 6. GEOL 317 (4) 7. GEOL 401 (4), 8. GEOL 404 (1-6; six credits required)
- d. Paleontology (36-39)
 - 1. GEOL 102 (4), 2. GEOL 302 (4), 3. GEOL 304 (4), 4. GEOL 312 (4), 5. GEOL 334 (4), 6. BIOL 103 (4) or BIOL 213 (4)
 - 7. Nine to Ten credits from the following (circle choices): GEOL 306 (3), GEOL 317 (4), GEOL332 (3), GEOL 364 (3), GEOL 403 (3) GEOL 412 (3), GEOL 458 (3), GEOL 565 (3)
 - 8. Three to five credits from the following (circle choice(s)): BIOL 310 (3) **and** BIOL 330 (2), BIOL 320 (4), BIOL 331 (4), BIOL 374 (3) **or** GGS 321 (3), BIOL 468 (4) **or** EVPP 468 (4), BIOL 470 (3), BIOL 471 (3)
- e. Oceanography and Estuarine Studies (33-37)
 - 1. GEOL 102 (4), 2. CLIM 412 (3), 3. GEOL 458 (3) or CHEM 458 (3), 4. BIOL 103 and 104 (4,4) **or** BIOL 213 and 303 (4,4) **or** EVPP 110 and 111 (4,4). 5. One of the following: GEOL 363 (4), EVPP 581 (3) **or** GEOL 364 (3), BIOL 449 (3), **and** three additional courses from the following list for nine credits (9): BIOL 440 (0-4), BIOL 449 (3), EVPP 350 (4), EVPP 377 (3), EVPP 419 (3), EVPP 581 (3), EVPP 582 (3), GEOL 302 (4), GEOL 304 (4), GEOL 308 (4), GEOL 312 (4), GEOL 363 (4), GEOL 364 (3), GEOL 565 (3), INTS 395 (1-18), RECR 161 (2).

A GPA of 2.0 or better required for major course work.

GENERAL ELECTIVES (List courses; may include additional courses in support specialties)

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

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 2016-2017 Catalog; the University Catalog is the official reference for program requirements.

COURSE LISTS (EARTH SCIENCE)

Mason Core Requirements

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

Oral Communication: COMM 100 or COMM 101

Quantitative Reasoning: MATH 113, STAT 250. 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; 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, 385; DANC 101, 119, 125, 131, 145, 161, 225, 231, 245, 301, 325, 331, 345, 425, 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, 436, 480; and the following courses for HIST 125: HIST 202, 387.

Social and Behavioral Sciences: AFAM 200; ANTH 114, 120, 135, 363, 372, 396; BUS 100; CONF 101; CONS 410; CRIM 100; ECON 100, 103, 104, 105, 367; EDUC 203, 372; GGS 103; GOVT 101, 103, 367; HEAL 230; HIST 121, 122; LING 306; PSYC 100, 211, 231; SOCI 101, 352, 355; TOUR 311; WMST 200

Natural Sciences: CHEM 211/213 & 212/214

Global Understanding: ANTH 302, 306, 307, 308, 309, 311, 312, 313, 316, 331, 332; ARTH 319, 320, 380, 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; 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: **One of these courses**: ANTH 395, CDS 130, CS 100, GOVT 300, HIST 390, IT 104, MIS 303, MUSI 259 **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, CEIE 409, CS 105, ENGR 107, IT 304, PHIL 112

Synthesis: ANTH 400; ARTH 394; AVT 385, 497, 498; BENG 492, 493; BINF 354; BIOL 301; BIS 490; BUS 498; CEIE 490; COMM 326, 362, 454; CONF 490; CONS 490, 491; CRIM 495; CS 306; DANC 490; ECE 492, 493; ECON 309; EDCI 490; EVPP 480; FAVS 352; FRLN 385; GAME 490; GCH 465; **GEOL 420**; GGS 303, 304; GOVT 490, 491; HAP 465; HDFS 400; HIST 300, 499; INTS 308; IT 492; LAS 499; MATH 400; MUSI 490; NURS 465; PHIL 309, 343, 377, 378, 379; PHYS 346; PROV 342; PSYC 405, 406, 427; RELI 490; RUSS 353; SOCI 377, 483; SOCW 375; SPAN 388; SYST 495; THR 440, 496

