

## EARTH SCIENCE BS concentration in environmental science – STEM TRACK

Fall 2009 – Spring 2010

### CONTACT INFORMATION

- Honors College Advisor: Kathleen Alligood ([alligood@gmu.edu](mailto:alligood@gmu.edu))
- Department Chair: Robert Jonas
- Department Program Coordinator: Chris Parsons ([eparson1@gmu.edu](mailto:eparson1@gmu.edu))

Once students begin attending Mason and declare a major they should see both their Honors College and their major department advisor for advising.

### REQUIRED HOURS

- Hours Required in Major: 34-35
- Hours Required in Honors: see honors advisor
- Total Required Hours: 120-122
- This major requires a total of 120 credits to graduate, 45 of which must be at the 300-level and above.

### ADVISING SHEET

- Honors College Requirement
- ◆ Department Requirement
- ▲ College Requirement

1 <sup>st</sup> Year – 1 <sup>st</sup> Semester (Fall)	Credits
○ HNRS 110: Introduction to Research (Grade C or better required)	4
◆ MATH 113: Analytic Geometry and Calculus I <sup>1</sup> (requires placement exam)	4
◆ GEOL 101: Introductory Geology I	4
◆ EVPP 110: The Ecosphere: An Introduction to Environmental Science I	4
Semester Total	16
1 <sup>st</sup> Year – 2 <sup>nd</sup> Semester (Spring)	
○ HNRS 122: Reading the Arts	3
◆ MATH 114 or MATH 116 (MATH 114H): Analytic Geometry and Calculus II	4
◆ EVPP 111: The Ecosphere: An Introduction to Environmental Science II	4
◆ Elective	3
Semester Total	14
2 <sup>nd</sup> Year – 1 <sup>st</sup> Semester (Fall)	
○ HNRS 131: Contemporary Society in Multiple Perspectives	3
◆ Elective or BIOL 103: Introductory Biology I or BIOL 213 or 213H: Cell Structure <sup>3</sup>	4
◆ CHEM 211 or CHEM 211H: General Chemistry or Honors General Chemistry <sup>2</sup>	4
◆ PHYS 160 or PHYS 160H or PHYS 243/244: University Physics I or College Physics	4
Semester Total	15
2 <sup>nd</sup> Year – 2 <sup>nd</sup> Semester (Spring)	
◆ STAT 250: Introductory Statistics I	3
◆ CHEM 212 or CHEM 212H: General Chemistry or Honors General	4

Chemistry <sup>2</sup>		
◆ PHYS 260/261 or PHYS 260H/261 or PHYS 245/246: University Physics II or Honors University Physics II or College Physics <sup>2</sup>		4
◆ Elective		3
	Semester Total	14
<b>2<sup>nd</sup> Year – 3<sup>rd</sup> Semester (Summer)</b>		
◆ GEOL 303: Field Mapping Techniques		3
	Semester Total	3
<b>3<sup>rd</sup> Year – 1<sup>st</sup> Semester (Fall)</b>		
○ HNRS 240: Reading the Past		3
◆ GEOL 309: Introduction to Oceanography		3
◆ BIOL 307: Ecology		4
◆ BIOL 377: Applied Ecology		3
◆ Elective		3
	Semester Total	16
<b>3<sup>rd</sup> Year – 2<sup>nd</sup> Semester (Spring)</b>		
◆ GEOL 305: Environmental Geology		3
◆ GEOG 309: Introduction to Meteorology and Climate		3
◆ GEOL 306: Soil Science		3
◆ EVPP 336: Human Dimensions of the Environment		3
○ HNRS 353: Technology in the Contemporary World (grade of C or better required)		3
	Semester Total	15
<b>4<sup>th</sup> Year – 1<sup>st</sup> Semester (Fall)</b>		
◆ BIOL 345: Plant Communities or EVPP 350: Aquatic Ecology		4
◆ Electives		12
	Semester Total	16
<b>4<sup>th</sup> Year – 2<sup>nd</sup> Semester (Spring)</b>		
◆ GEOL 406: Seminar in Earth and Environmental Science		3
◆ BIOL 449: Marine Ecology or EVPP 363: Coastal Morphology and Processes		3-4
◆ Electives		6
	Semester Total	12-13
	Total Hours	121-122

## NOTES

1. MATH 113 requires a placement exam. See the Math Department for placement exam days and times.
2. To complete the STEM Track, students must take two (2) of the following courses:
  - BIOL 213H
  - BIOL 303H
  - ECON 103H
  - CHEM 211H

- CHEM 212H
  - CS 211H
  - MATH 116
  - MATH 215
  - PHYS 160H
  - PHYS 260H
  - PHYS 262H
3. See Dept. advisor as to whether Biology courses are recommended for later Environmental Science major courses. HNRS 227 & 228 are not recommended for Environmental Science Majors.
  4. 34-35 credit hours must be fulfilled in a Concentration that needs to be designed and approved by the Dept. Chair.