Bachelor of Science in Applied Geophysics

2015-2016

**Year 1**

**Fall**
- MA 1160/1161 Calculus I (4 credits) F, S, Su
- MA 2160 Calculus II (4 credits) F, S, Su
- PH 1100 Physics Lab I (1 credit) F, S, Su
- CH 1150 Uni Chemistry I (3 credits) F, S, Su

**Spring**
- MA 2200 Physics Lab II (1 credit) F, S, Su
- PH 1200 Physics Lab II (1 credit) F, S, Su
- CH 1151 Chem Lab I (1 credit) F, S, Su
- GE 1000 Understanding the Earth (3 credits) F

13 CREDITS

**Year 2**

**Fall**
- MA 2320 Elem Linear Algebra (2 credits) F, S, Su
- PH 2200 Uni Physics II - Elect 2 (3 credits) F, S, Su
- GE 3000 Intro to Mineralogy (3 credits) F
- GE 3320 Earth History (3 credits) F

14 CREDITS

**Spring**
- MA 3520 Elem Differential Equations (2 credits) F, S, Su
- PH 2300 Uni Physics III - Fluids/Termo (2 credits) F
- GE 2310 Intro to Petrology (3 credits) S
- GE 3050 Structural Geology (4 credits) S

14 CREDITS

**Summer**
- MA 3160 Multivariable Calculus w/ Tech (4 credits) F, S, Su
- PH 2400 Uni Physics IV - Wmp (3 credits) F, S, Su
- GE 3010 Depositional Systems (3 credits) F
- GE 3910 Field Geology w/ Eng App (5 credits) Su

10 CREDITS

**Year 3**

**Fall**
- MA 4515 Intro Partial Diff Eq (3 credits) S, Su
- MA 3650 Math Elective (3 credits) F
- MA 3515 Advanced Geophysics Elective (3 credits) S, F
- MA 4250 Geology Elective (3 credits) F, S, Su

16 CREDITS

**Spring**
- MA 4525 App Vector & Tensor Math (3 credits) S
- MA 4525 Advanced Geophysics Elective (3 credits) S, F
- MA 4600 Senior Seminar (2 credits) F
- MA 4700 Advanced Geophysics Elective (4 credits) S

15 CREDITS

**Year 4**

**Fall**
- MA 4600 Senior Seminar (2 credits) F
- MA 4700 Advanced Geophysics Elective (4 credits) S
- MA 4700 Advanced Geophysics Elective (4 credits) S
- MA 4700 Advanced Geophysics Elective (4 credits) S

15 CREDITS

**Spring**
- MA 4600 Senior Seminar (2 credits) F
- MA 4700 Advanced Geophysics Elective (4 credits) S
- MA 4700 Advanced Geophysics Elective (4 credits) S
- MA 4700 Advanced Geophysics Elective (4 credits) S

15 CREDITS

**Total Credits:**
- 13+14+14+17=68

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This is not an official list of requirements. Adjustments may be required due to curriculum changes.
BS in Applied Geophysics 2015-2016  
(Minimum of 128 Credits)

Geology Approved Electives (Minimum of 3 credits)  
Geo Approved Electives can be any GE, PH, MA, or EE course 3000 level or above that is not already required or counted elsewhere.

Second Degree Policy: Candidates for a second degree must meet all the coursework requirements for the major in the second degree with a minimum of 25% of the credit hours required for the degree, beyond the primary degree.

### Advanced Geophysics Electives

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Offered</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE 4500 Plate Tectonics and Global Geophysics</td>
<td>Fall, Spring</td>
<td>GE 2000, PH 2200, MA 3160</td>
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<tr>
<td>GE 4530 Planetary Geology and Geophysics</td>
<td>Fall</td>
<td>GE 2000, PH 2200, MA 2160</td>
</tr>
<tr>
<td>GE 4560 Earthquake Seismology</td>
<td>Fall</td>
<td>GE 3050, PH 2100, MA 3160</td>
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<tr>
<td>GE 4600 Reflection Seismology</td>
<td>Spring</td>
<td>GE 3040</td>
</tr>
<tr>
<td>GE 4610 Formation Eval. &amp; Petroleum Engineering</td>
<td>Fall</td>
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<tr>
<td>GE 4933 Special Topics in Geophysics*</td>
<td>On Demand</td>
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<tr>
<td>GE 4962 Ind. Geophysics Research Project**</td>
<td>On Demand</td>
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</tbody>
</table>

* GE 4610 Restrictions: Permission of instructor required

**GE 4962 Restrictions: Permission of instructor required; May not be enrolled in one of the following Classes: Freshman, Sophomore

Note: With approval of Advisor and Department Chair, exceptions may be granted for Advanced Geophysics Elective requirements.

### General Education Requirements

I. Core Courses (6 Credits)  
___UN 1015  
___UN 1025*  
* Or one semester of a 3000 level or higher modern language.

II. Sophomore Electives (6 Credits)  
___HU/FA ______________    ___ SS/Behavioral ________________

III. Hass Course Requirements (12 Credits)  
(http://www.mtu.edu/registrar/pdfs/HASS-Distribution-List.pdf)  
- 6 credits 3000- or 4000- level  
- No more than 3 credits on the Creative Endeavors List  
- No more than 3 credits on the Supplemental List

A. 6 credits 3000- or 4000- level:  
1._________________  2._________________

B. 6 credits at any level:  
1._________________  2._________________

IV. Co-curricular activities (3 units)  
The co-curricular requirement consists of three semester units of physical education activities. These units are required for graduation, but are not included in the overall degree-credit requirement.

Note: Most physical education activities will last for 7 ½ weeks or ½ semester. A student would need six of these ½-semester units to fulfill the 3-semester unit co-curricular requirement.

PE______________ PE______________ PE______________

PE______________ PE______________ PE______________