### Geophysics Undergraduate Study Flowchart
(Bulletin 2015-2016)

**Department of Geophysics**

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td>FALL</td>
<td>MATH 111</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>MATH 112</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>FALL</td>
<td>LAIS 100</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>PHGN 100</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td>FALL</td>
<td>MATH 213</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>MATH 225</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>FALL</td>
<td>PHGN 200</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>GPGN 221</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td>FALL</td>
<td>MATH 268</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>CSCI 261 (e)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FALL</td>
<td>GPGN 304</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>GPGN 305</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SUMMER</td>
<td>GPGN 486 (h)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td>FALL</td>
<td>GPGN 438 (e)</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>SPRING</td>
<td>GPGN 438 (e)</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>SUMMER</td>
<td>GEOL 314 (d)</td>
<td>3</td>
</tr>
</tbody>
</table>

- **Math**
  - MATH 111 Calculus for Engineers I & II
  - MATH 112 Calculus for Engineers I & II
  - MATH 213 Differential Equations & Linear Algebra
  - MATH 225 Engineering Math
  - MATH 348 Advanced Topics in Math

- **Physics**
  - LAIS 100 Physics I
  - PHGN 100 Physics II
  - PHGN 200 Static Fields
  - PHGN 221 Dynamic Fields
  - PHGN 322 Continuum Mechanics
  - PHGN 320 Electromagnetic Theory

- **Geophysics**
  - CSM 101 Freshman Seminar
  - CSCI 261 (e) Computer Science
  - GPGN 200 Intro to Geophysics
  - GPGN 205+ (b) Geophysics
  - GPGN 268 Geophysics
  - GPGN 304 Gravity/Magnetics
  - GPGN 305 Seismic Exploration
  - GPGN 486 (h) Field Camp
  - GPGN 438 (e) Senior Design
  - GPGN 438 (e) Senior Design
  - GPGN 439 (e) Multidisciplinary Design
  - GEOL 314 (d) Stratigraphy

- **Geology & Geop Field**
  - SYGN 101 Earth Systems
  - GEGN 205 (1 credit hour) Geophysics
  - GEGN 203 (2 credit hours) Geophysics
  - GEGN 204 (2 credit hours) Geophysics

- **Engineering & Design**
  - EPIC 151 Design I
  - EPIC 152 Design II
  - GPGN 268 Geophysics
  - GEOL 308 (d) Field Geology
  - GPGN 486 (h) Field Camp

- **Science & Systems**
  - CHGN 121 Distributed Science (a)
  - EBGN 201 Geophysics
  - SYGN 200 Human Systems
  - SYGN 200 Human Systems
  - SYGN 200 Human Systems
  - SYGN 200 Human Systems

- **Activities & Electives**
  - PAGN 101 Phys Ed
  - PAGN 102 Phys Ed
  - PAGN 201 Econ Business
  - PAGN 202 Human Systems
  - PAGN 202 Human Systems

### Total Credits
- **Total Hours per Semester:**
  - FALL: 17
  - SPRING: 15
  - SUMMER: 17
  - GRAND TOTAL: 132.5

(a) Students take a 3rd distributed science course. Those with no computer programming experience should take CSCI101.

(b) Students must take GEOL205 (1 credit hour) with either GEOL203 or GEOL204 (2 credit hours).

(c) Students should enroll in the Java section of CSCI261, although C++ is accepted.

(d) Students must take GEOL308 (3 credits) or GEOL309 (4 credits), and either GEOL314 (4 credits) or GEOL315 (3 credits).

(e) Students may take either GPGN438 or GPGN439 for their Senior Design Requirement. The multidisciplinary design course GPGN439 is strongly recommended for students interested in Petroleum Exploration and Production. GPGN438 is a variable credit-hour course for which students can register in either or both Fall and Spring semesters of their senior years. Students must earn a total of 3 credit hours in GPGN438.

(f) Students must take at least 11 hours of advanced GPGN elective courses at the 400- or 500-level.

(g) Electives must include at least 9 hours that meet LAIS core requirements.