### Geography-Earth Science (39+ Cr)

**Required Geography Core (15 Cr)**
- GEO 105 Physical Geography
- GEO 202 GIS I: Intro to GIS
- GEO 244 Land Use or 322 Urban Geography
- GEO 329 Economic Geography
- GEO 391 Geography Seminar

**GIS Core Courses (12 Cr)**
(all are required)
- GEO 339 Remote Sensing
- GEO 352 Cartography
- GEO 363 GIS II: Intermediate GIS
- GEO 420 GIS III: Advanced GIS

**GIS Technical Electives (6 Cr)**
(select 2)
- GEO 425 Image Processing
- GEO 440 Field Techniques I
- GEO 441 Quantitative Methods
- GEO 463 Applied Geophysical Imaging
- GEO 4___ Geography 400 Level Elective

**Geography Content Electives (3cr)**
(select 1)
- GEO 244 Land Use
- GEO 301 Biogeochemistry
- GEO 310 Transportation Geography
- GEO 322 Urban Geography
- GEO 427 Environmental Sustainability
- GEO 444 Env Land Use Planning

**Internship (3+ Cr)**
- GEO 360 Internship

Must have 2.0 overall and major GPA, and Junior status.

### Allied Sciences (18 Cr)

**Social Sciences (6 Cr)**
(select 2)
- PHL 332 Ethical Issues and Comp Tech
- PLS 231 State and Local Government
- PLS 271 Introduction to Public Administration
- PLS 331 City Politics and Administration
- PLS 431 Pennsylvania Local Government
- SOC 220 Social Stratification
- SOC 346 City and Community
- SOC 363 Population Problems

**Art/Computer Science/IMS (9+ Cr)**
- ART 217 Computer Design I
- CSC 107 Computer Design II (4)
- CSC 104 by advisement
- MIS 142 Business Computer Systems
- MIS 240 Intro to Programming Concepts
- MIS 300 Info Tech and Business Operations
- MIS 355 Database Applications

**Math (3+ Cr)**
(select 1)
- MAT 140A College Algebra (4)*
- MAT 140B College Algebra (3)*
- MAT 175 Precalculus
- MAT 211 Calculus
- MAT 225 Discrete Mathematics

**Technical Writing (3 Cr)**
(required)
- ENG 238 Technical/Professional Writing

* MAT 140B is for students with a math placement level of 4 or higher and is the standard algebra course. MAT 140A is for students with a math placement level 3.

### General Education Requirements (45 CR)

Courses filled-in below are DIRECTED general education classes that MUST be taken for the major. All other general education courses can be chosen from the list on the back of this page.

<table>
<thead>
<tr>
<th>Foundations a (15 cr total)</th>
<th>Cr</th>
<th>Course(s)</th>
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* One course in each area are required.

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<th>Interconnections (9 cr total)</th>
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* At least 1 course each from D and G.

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<th>Citizenship c (6 cr total)</th>
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* PLS 100 and Soc 101 required.

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<th>Natural World (9 cr total)</th>
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* At least 2 courses from N. CSC 104 required.

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<th>Creativity (6 cr total)</th>
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* At least 1 L course.

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April 30, 2021