

Department of Geosciences

BS in Earth Science

Education, Research, and Service in Geography, Geology, and Earth Science

Earth System Science Option

Student's Name _____ Advisor _____ Date _____

University Baccalaureate Core Course (BCC) Requirements (48 credits + WIC course)

Courses must be from BCC approved list. No single course may be used to satisfy more than one area of the Baccalaureate Core even though some courses are approved for more than one area. Up to 15 credits required in the major can also be used to satisfy BCC requirements.

Skills (15 credits)

- (9) ___ WR 121 ___ WR II ___ Writing/Speech III
- (3) ___ MTH 105 or higher (MTH 251 required)
- (3) ___ Fitness
- ___ Writing Intensive Course (WIC) (included in credits within the major; GEO 462 required)

Perspectives (27 credits; must be from BCC approved list; no more than two courses from the same department)

- (4) ___ Physical Science with Lab (GEO 101 or 201 required)
- (4) ___ Biological Science with Lab
- (4) ___ Physical or Biological Science with Lab (GEO 102 or 202 required)
- (3) ___ Western Culture
- (3) ___ Cultural Diversity
- (3) ___ Literature and the Arts
- (3) ___ Social Processes and Institutions
- (3) ___ Difference, Power and Discrimination

Synthesis (6 credits; upper division courses from BCC approved list and from different departments)

- (3) ___ Contemporary Global Issues
- (3) ___ Science, Technology, and Society (CSS/GEO 335 required)

Earth Science Major Requirements (81-84 credits)

Substitutions to these requirements can only be made with the written approval of the Head Advisor. Any substitutions should be noted in your file.

Basic Science Skills (30-32 credits):

- (4) ___ MTH 251
- (4) ___ ST 351 or ST 314
- (4) ___ ST 352 or MTH 252
- (10) ___ CH 121 or CH 221 ___ CH 122 or CH 222
- (8-10) ___ PH 201 or PH 211 ___ PH 202 or PH 212

Geosciences Core Courses (25-26 credits):

- (4) ___ GEO 101 The Solid Earth or GEO 201 Physical Geology
- (4) ___ GEO 102 The Surface of the Earth or GEO 202 Earth System Science
- (4) ___ GEO 322 Surface Processes
- (4) ___ CSS 305 Principles of Soil Science
- (3) ___ CSS/GEO 335 Water Science and Policy
- (3) ___ OC 331 Intro to Oceanography
- (3-4) ___ ATS 210 Intro to Atmospheric Sci (3) or GEO 203 Evolution of Planet Earth (4) or GEO 323 Climatology (4)

Earth Science Techniques (11 credits):

- (3) ___ GEO 265 GIS Practicum
- (4) ___ GEO 301 Map and Image Interpretation
- (4) ___ GEO 462 Geoscience Field Techniques (WIC)

Upper Division Earth Science (12 credits, with at least 2 courses from one focus):

Geology Focus:

- (4) ___ GEO 310 Mineralogy
- (4) ___ GEO 315 Petrology
- (4) ___ GEO 340 Structural Geology
- (4) ___ GEO 430 Geochemistry

Soil Science Focus:

- (4) ___ CSS 435 Physics of Soil Ecosystems
- (4) ___ CSS 445 Geochemistry of Soil Ecosystems
- (4) ___ CSS 455 Biology of Soil Ecosystems
- (4) ___ CSS 466 Soil Morphology and Classification

Oceanic and Atmospheric Sciences Focus:

- (4) ___ ATS 420 Atmospheric Science
- (3) ___ GEO 431 Applied Climatology
- (3) ___ OC 332 Coastal Oceanography
- (3) ___ OC 430 Physical Oceanography
- (3) ___ OC 440 Biological Oceanography
- (3) ___ OC 450 Chemical Oceanography
- (3) ___ OC 460 Geological Oceanography

Water Science Focus:

- (4) ___ CE 412 Hydrology (note the prereqs) or FE 430 Watershed Processes
- (5) ___ FW 456 Limnology
- (4) ___ GEO 487 Hydrogeology

Capstone Experience (4 credits)

- (3) ___ GEO 4XX Contemporary Earth Science Issues
 - (1) ___ GEO 407 Professional Seminar
-

Earth System Science Option (35 credits)

- (3)___ GEO 444 Remote Sensing
- (4)___ GEO 4XX Paleoclimate

One of:

- (3)___ ATS 320. Man's Impact on Climate
- (3)___ GEO 308. Global Change and Earth Sciences

Biosphere: (19 cr.)

- (12)___ BI 211, 212, 213 Intro Biology
- (4)___ GEO 324 Biogeography

One of:

- (3)___ BI 306 Environmental Ecology
- (3)___ BI 370 Ecology

(6) More Credits from **Upper Division Earth Science***, listed under core coursework (1st page, right-hand column).

___ Course 1

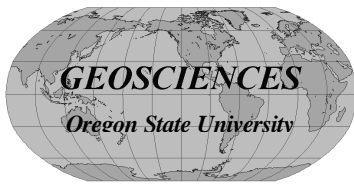
___ Course 2

*In place of one of the Upper Division Earth Science courses, students may choose an approved 3-cr. research project in Earth Sciences. These may be set up by the student with a faculty member in COAS (OC 401, ATS 401), Geosciences (GEO 401), Crop and Soil Sciences (CSS 401), or with faculty in other departments with the approval of the Earth Sciences Head advisor. Students should first contact the faculty member with whom they would like to work.

4. OSU Graduation Requirements

- ___ 180 total credits
- ___ 60 upper division (course numbered 300 or higher) credits
- ___ 2.00 minimum overall GPA
- ___ 24 upper division credits within the major
- ___ 2.00 minimum GPA in major
- ___ Foreign Language (2 years high school or 2 terms college)
- ___ 15 of the upper division credits in the major from regularly listed courses
- ___ Residence requirement--last 45 credits of course work must be from OSU

Rev. 11/03



Department of Geosciences

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Earth Science Education Option

Student's Name _____ Advisor _____ Date _____

University Baccalaureate Core Course (BCC) Requirements (48 credits + WIC course)

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Skills (15 credits)

- (9) ___ WR 121 ___ WR II ___ Writing/Speech III
- (3) ___ MTH 105 or higher (MTH 251 required)
- (3) ___ Fitness
- ___ Writing Intensive Course (WIC) (included in credits within the major; GEO 462 required)

Perspectives (27 credits; must be from BCC approved list; no more than two courses from the same department)

- (4) ___ Physical Science with Lab (GEO 101 or 201 required)
- (4) ___ Biological Science with Lab
- (4) ___ Physical or Biological Science with Lab (GEO 102 or 202 required)
- (3) ___ Western Culture
- (3) ___ Cultural Diversity
- (3) ___ Literature and the Arts
- (3) ___ Social Processes and Institutions
- (3) ___ Difference, Power and Discrimination

Synthesis (6 credits; upper division courses from BCC approved list and from different departments)

- (3) ___ Contemporary Global Issues
- (3) ___ Science, Technology, and Society (CSS/GEO 335 required)

Earth Science Major Requirements (81-84 credits)

Substitutions to these requirements can only be made with the written approval of the Head Advisor. Any substitutions should be noted in your file.

Basic Science Skills (30-32 credits):

- (4) ___ MTH 251
- (4) ___ ST 351 or ST 314
- (4) ___ ST 352 or MTH 252
- (10) ___ CH 121 or CH 221 ___ CH 122 or CH 222
- (8-10) ___ PH 201 or PH 211 ___ PH 202 or PH 212

Geosciences Core Courses (25-26 credits):

- (4) ___ GEO 101 The Solid Earth or GEO 201 Physical Geology
- (4) ___ GEO 102 The Surface of the Earth or GEO 202 Earth System Science
- (4) ___ GEO 322 Surface Processes
- (4) ___ CSS 305 Principles of Soil Science
- (3) ___ CSS/GEO 335 Water Science and Policy
- (3) ___ OC 331 Intro to Oceanography
- (3-4) ___ ATS 210 Intro to Atmospheric Sci (3) or GEO 203 Evolution of Planet Earth (4) or GEO 323 Climatology (4)

Earth Science Techniques (11 credits):

- (3) ___ GEO 265 GIS Practicum
- (4) ___ GEO 301 Map and Image Interpretation
- (4) ___ GEO 462 Geoscience Field Techniques (WIC)

Upper Division Earth Science (12 credits, with at least 2 courses from one focus):

Geology Focus:

- (4) ___ GEO 310 Mineralogy
- (4) ___ GEO 315 Petrology
- (4) ___ GEO 340 Structural Geology
- (4) ___ GEO 430 Geochemistry

Soil Science Focus:

- (4) ___ CSS 435 Physics of Soil Ecosystems
- (4) ___ CSS 445 Geochemistry of Soil Ecosystems
- (4) ___ CSS 455 Biology of Soil Ecosystems
- (4) ___ CSS 466 Soil Morphology and Classification

Oceanic and Atmospheric Sciences Focus:

- (4) ___ ATS 420 Atmospheric Science
- (3) ___ GEO 431 Applied Climatology
- (3) ___ OC 332 Coastal Oceanography
- (3) ___ OC 430 Physical Oceanography
- (3) ___ OC 440 Biological Oceanography
- (3) ___ OC 450 Chemical Oceanography
- (3) ___ OC 460 Geological Oceanography

Water Science Focus:

- (4) ___ CE 412 Hydrology (note the prereqs) or FE 430 Watershed Processes
- (5) ___ FW 456 Limnology
- (4) ___ GEO 487 Hydrogeology

Capstone Experience (4 credits)

- (3) ___ GEO 4XX Contemporary Earth Science Issues
- (1) ___ GEO 407 Professional Seminar

3. Earth Science Education Option (31-35 credits)

3a. Required Courses (4 credits)

- (4) GEO 203 Evolution of Planet Earth (must be taken in core; not counted here)
- (4) PH 104 Descriptive Astronomy

3b. Science Education Techniques (15 credits; Prep for Graduate Initial Licensure)

- (3) SED 309 Field Practicum in Science and Mathematics or equivalent
- (3) SED 409 Field Practicum in Science and Mathematics or equivalent
- (3) SED 412 Technology Foundations for Teaching Math and Science
- (3) SED 413 Science Materials and Laboratories
- (3) SED 416 Methods Foundations for Teaching Math and Science

3c. Science Content (12-16 credits; choose one of the following emphases)

Physics of the Earth Emphasis:

- (8-10) PH 201, 202 or 211, 212 (Core requirement)
- (4-5) PH 203 or PH 213 General Physics
- (3) PH 313 Energy Alternatives
- (3) PH 331 Sound, Hearing, and Music
- (3) PH 332 Light, Vision, and Color
- (4) GEO 463 Geophysics and Tectonics

Chemistry of the Earth Emphasis:

- (10) CH 121, 122 or 221, 222 (Core requirement)
- (5) CH 123 or 223 General Chemistry
- (3) CH 390 Environmental Chemistry
- (4) GEO 430 Geochemistry

Mathematics Emphasis:

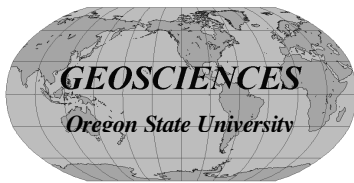
- (4) MTH 251 (Core requirement)
- (8) MTH 211, 212
- (4) MTH 390
- (4) ST 351 (Core requirement)
- (4) ST 352

3d. Additional Earth Science Content Breadth (Recommended only; not required for degree)

- (3) GEO 305 Living with Active Cascade Volc.
- (3) GEO 307 Geology of National Parks
- (3) GEO 308 Global Change and Earth Sciences
- (3) GEO 380 Earthquakes in the Pacific NW
- (4) GEO 427 Volcanology
- (3) HSTS 45 Theory of Evolution and Foundation of Modern Biology
- (3) OC 332 Coastal Oceanography
- (3) Z 315 Dinosaur Biology
- (3) Z 427 Paleobiology

4. OSU Graduation Requirements

- 180 total credits
- 60 upper division (course numbered 300 or higher) credits
- 2.00 minimum overall GPA
- 2.00 minimum GPA in major
- 24 upper division credits within the major
- 15 of the upper division credits in the major from regularly listed courses
- Foreign Language (2 years high school or 2 terms college)
- Residence requirement--last 45 credits of course work must be from OSU



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Public Interpretation Option

Student's Name _____ Advisor _____ Date _____

University Baccalaureate Core Course (BCC) Requirements (48 credits + WIC course)

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Skills (15 credits)

- (9) ___ WR 121 ___ WR II ___ Writing/Speech III
- (3) ___ MTH 105 or higher (MTH 251 required)
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- (3) ___ Literature and the Arts
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- (3) ___ Difference, Power and Discrimination

Synthesis (6 credits; upper division courses from BCC approved list and from different departments)

- (3) ___ Contemporary Global Issues
- (3) ___ Science, Technology, and Society (CSS/GEO 335 required)

Earth Science Major Requirements (81-84 credits)

Substitutions to these requirements can only be made with the written approval of the Head Advisor. Any substitutions should be noted in your file.

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- (4) ___ CSS 305 Principles of Soil Science
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- (3-4) ___ ATS 210 Intro to Atmospheric Sci (3) or GEO 203 Evolution of Planet Earth (4) or GEO 323 Climatology (4)

Earth Science Techniques (11 credits):

- (3) ___ GEO 265 GIS Practicum
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Upper Division Earth Science (12 credits, with at least 2 courses from one focus):

Geology Focus:

- (4) ___ GEO 310 Mineralogy
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- (4) ___ GEO 340 Structural Geology
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Soil Science Focus:

- (4) ___ CSS 435 Physics of Soil Ecosystems
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- (4) ___ CSS 466 Soil Morphology and Classification

Oceanic and Atmospheric Sciences Focus:

- (4) ___ ATS 420 Atmospheric Science
- (3) ___ GEO 431 Applied Climatology
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Water Science Focus:

- (4) ___ CE 412 Hydrology (note the prereqs) or FE 430 Watershed Processes
- (5) ___ FW 456 Limnology
- (4) ___ GEO 487 Hydrogeology

Capstone Experience (4 credits)

- (3) ___ GEO 4XX Contemporary Earth Science Issues
- (1) ___ GEO 407 Professional Seminar

3. Public Interpretation Option (34 credits)

3a. Required Courses (9 credits)

- (3) ___ FOR 391 Natural Resources Communications
- (3) ___ GEO 307 Geology of National Parks
- (3) ___ GEO 4XZ Geoscience Interpretation

3b. Earth Science Electives (11 credits)

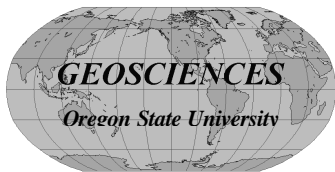
- (3) ___ GEO 305 Living w/ Active Cascade Volcan.
- (3) ___ GEO 308 Global Change and Earth Sciences
- (4) ___ GEO 322 Surface Processes and Geomorph.
- (3) ___ GEO 380 Earthquakes in the Pacific NW
- (4) ___ GEO 427 Volcanology
- (4) ___ GEO 461 Geology of Earthquakes
- (4) ___ GEO 463 Geophysics and Tectonics
- (4) ___ GEO 470 Stratigraphy and Sedimentology
- (4) ___ GEO 481 Glacial Geology
- (4) ___ GEO 487 Hydrogeology

3c. Interpretation Skills Electives (14 credits)

- (3) ___ ART 300 Visual Communication
- (3) ___ COMM 312 Advanced Public Speaking
- (4) ___ COMM 382 Telemedia Design and Prod.
- (4) ___ CS 395 Intermediate Multimedia
- (3) ___ FOR 493 Environmental Interpretation
- (4) ___ GEO 360 Cartography
- (4) ___ GEO 410 Internship (Interpretation)
- (4) ___ GEO 422 Reconstructing Historic Landscapes
- (3) ___ SOC 480 Environmental Sociology
- (3) ___ WR 362 Science Writing

4. OSU Graduation Requirements

- ___ 180 total credits
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- ___ 2.00 minimum GPA in major
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- ___ Foreign Language (2 years high school or 2 terms college)
- ___ Residence requirement--last 45 credits of course work must be from OSU



Department of Geosciences

BS in Earth Science

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Applied Earth Science Option

Student's Name _____ Advisor _____ Date _____

University Baccalaureate Core Course (BCC) Requirements (48 credits + WIC course)

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Skills (15 credits)

- (9) ___ WR 121 ___ WR II ___ Writing/Speech III
- (3) ___ MTH 105 or higher (MTH 251 required)
- (3) ___ Fitness
- ___ Writing Intensive Course (WIC) (included in credits within the major; GEO 462 required)

Perspectives (27 credits; must be from BCC approved list; no more than two courses from the same department)

- (4) ___ Physical Science with Lab (GEO 101 or 201 required)
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- (4) ___ Physical or Biological Science with Lab (GEO 102 or 202 required)
- (3) ___ Western Culture
- (3) ___ Cultural Diversity
- (3) ___ Literature and the Arts
- (3) ___ Social Processes and Institutions
- (3) ___ Difference, Power and Discrimination

Synthesis (6 credits; upper division courses from BCC approved list and from different departments)

- (3) ___ Contemporary Global Issues
- (3) ___ Science, Technology, and Society (CSS/GEO 335 required)

Earth Science Major Requirements (81-84 credits)

Substitutions to these requirements can only be made with the written approval of the Head Advisor. Any substitutions should be noted in your file.

Basic Science Skills (30-32 credits):

- (4) ___ MTH 251
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- (4) ___ ST 352 or MTH 252
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- (8-10) ___ PH 201 or PH 211 ___ PH 202 or PH 212

Geosciences Core Courses (25-26 credits):

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- (4) ___ GEO 102 The Surface of the Earth or GEO 202 Earth System Science
- (4) ___ GEO 322 Surface Processes
- (4) ___ CSS 305 Principles of Soil Science
- (3) ___ CSS/GEO 335 Water Science and Policy
- (3) ___ OC 331 Intro to Oceanography
- (3-4) ___ ATS 210 Intro to Atmospheric Sci (3) or GEO 203 Evolution of Planet Earth (4) or GEO 323 Climatology (4)

Earth Science Techniques (11 credits):

- (3) ___ GEO 265 GIS Practicum
- (4) ___ GEO 301 Map and Image Interpretation
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Upper Division Earth Science (12 credits, with at least 2 courses from one focus):

Geology Focus:

- (4) ___ GEO 310 Mineralogy
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- (4) ___ GEO 340 Structural Geology
- (4) ___ GEO 430 Geochemistry

Soil Science Focus:

- (4) ___ CSS 435 Physics of Soil Ecosystems
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- (4) ___ CSS 455 Biology of Soil Ecosystems
- (4) ___ CSS 466 Soil Morphology and Classification

Oceanic and Atmospheric Sciences Focus:

- (4) ___ ATS 420 Atmospheric Science
- (3) ___ GEO 431 Applied Climatology
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Water Science Focus:

- (4) ___ CE 412 Hydrology (note the prereqs) or FE 430 Watershed Processes
- (5) ___ FW 456 Limnology
- (4) ___ GEO 487 Hydrogeology

Capstone Experience (4 credits)

- (3) ___ GEO 4XX Contemporary Earth Science Issues
 - (1) ___ GEO 407 Professional Seminar
-

Applied Earth Science Option (35 credits)

Advanced Earth Science Techniques from list: (8 credits)

- (4)___ CE 456 Environmental Assessment
- (4)___ GEO 360 Cartography
- (3)___ GEO 444 Remote Sensing
- (3)___ GEO 445 Computer-Assisted Cartography
- (3)___ GEO 465 Geographic Information Systems
- (3)___ GEO 466 Digital Image Processing

Choose a Minor (27 credits)

All minors are 27 cr. and contain at least 12 cr. of upper division work. Choose one of the minors listed below, which integrate well with the ESBS or are professionally supplementary to the ESBS.

Note that students may not double-count courses between the option and the minor. In other words, the same course may not be used to meet the requirements above under "Advanced Earth Science Techniques" and the requirements of the minor. Courses **may** be double-counted between the minor and other courses in the ESBS.

Accepted Minors:

- Agricultural Sciences**
- Anthropology**
- Biology**
- Business Administration**
- Chemistry**
- Earth Information Science and Technology (EIST)**
- Environmental Engineering**
- Environmental Sciences**
- Fisheries and Wildlife**
- Forest Management**
- Forest Recreation Resources**
- Mathematical Sciences**
- Mathematics**
- Microbiology**
- Military Studies¹ - one of Air Force Studies, Military Science, or Naval Science**
- Natural Resource and Environmental Law and Policy**
- Natural Resources**
- North American Environmental Sciences**
- Oceanography**
- Physics**
- Resource Economics**
- Soil Sciences**
- Statistics**
- Zoology**

OSU Graduation Requirements

- ___ 180 total credits
- ___ 60 upper division (course numbered 300 or higher) credits
- ___ 2.00 minimum overall GPA
- ___ 24 upper division credits within the major
- ___ 2.00 minimum GPA in major
- ___ Foreign Language (2 years high school or 2 terms college)
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¹ Offered via the Reserve Officer Training Corps (ROTC) program.

BS in Earth Science

Suggested Course Timeline

Earth System Science Option

Courses specific to the Option are listed below **in bold font**.

Individual timelines will depend on a student's background and abilities. Care should be taken with the sequence of courses and the completion of Baccalaureate Core Course (BCC) requirements. Some lower-division requirements are offered in summer session. Students who have not met the language entrance requirement will need take two foreign language courses. Additional courses will need to be taken in Junior and Senior years to bring total credits to 180. Some classes have prerequisites not listed in timeline.

	FALL	WINTER	SPRING
Freshman	(4) GEO 201 (or 101) (5) CH 221 (or 121) (3) WR 121 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(4) GEO 202 (or 102) (5) CH 222 (or 122) (3) WR 122 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(3-4) GEO 203 (or ATS 210 or GEO 323) (3) WR 123 (4) MATH 112 (3) HPE 231 (3) BCC Perspectives (WC/CD/LA/SI/DP) 16-17 credits
Sophomore	(4) GEO 322 (4-5) PH 201 (or 211) (4) MTH 251 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15-16 credits	(3) GEO 265 (4-5) PH 202 (or 212) (4) ST 351 (or 314) (4) CSS 305 15-16 credits	(4) GEO 301 (3) OC 331 (4) ST 352 (or MTH 252) (3) BCC Perspectives (WC/CD/LA/SI/DP) 14 credits
Junior	(3-4) UD-Focus Area (3) CSS/GEO 335 (BCC Synthesis - ST) (4) BI 211 (3) BI 306 or 370 13-14 credits	(3-4) UD-Focus Area (3-4) UD-Focus Area (3) BCC Synthesis (GI) (4) BI 212 13-15 credits	(4) GEO 462 (WIC) (4) BI 213 (4) GEO 324 12 credits
Senior	(3-4) UD-Focus Area (1) GEO 407 Prof. Seminar (3-4) ES -Elective 7-9 credits	(3-4) ES -Elective (3) GEO 308 or ATS 320 (4) GEO 4xx (Paleoclimate) 10-11 credits	(3) GEO 4XX (Capstone) (3) GEO 444 6 credits

BS in Earth Science

Suggested Course Timeline

Earth Science Education Option

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Sophomore	(4) GEO 322 (4-5) PH 201 (or 211) (4) MTH 251 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15-16 credits	(3) GEO 265 (4-5) PH 202 (or 212) (4) ST 351 (or 314) (4) CSS 305 15-16 credits	(4) GEO 301 (3) OC 331 (4) ST 352 (or MTH 252) (3) BCC Perspectives (WC/CD/LA/SI/DP) 14 credits
Junior	(3-4) UD-Focus Area (3) CSS/GEO 335 (BCC Synthesis - ST) (4) BI 211 (3) SED 309 (3-5) Sci. Content-Elective 16-19 credits	(3-4) UD-Focus Area (3-4) UD-Focus Area (3) BCC Synthesis (GI) (3-5) Sci. Content-Elective 12-16 credits	(4) GEO 462 (WIC) (4) PH 104 (3-5) Sci. Content-Elective 11-13 credits
Senior	(3-4) UD-Focus Area (3) SED 409 (3-5) Sci. Content-Elective 9-12 credits	(3-5) Sci. Content-Elective (3) SED 412 6-8 credits	(3) GEO 4XX (3) SED 413 (3) SED 416 9 credits

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Suggested Course Timeline

Public Interpretation Option

Courses specific to the Option are listed below **in bold font**.

Individual timelines will depend on a student's background and abilities. Care should be taken with the sequence of courses and the completion of Baccalaureate Core Course (BCC) requirements. Some lower-division requirements are offered in summer session. Students who have not met the language entrance requirement will need take two foreign language courses. Additional courses will need to be taken in Junior and Senior years to bring total credits to 180. Some classes have prerequisites not listed in timeline.

	FALL	WINTER	SPRING
Freshman	(4) GEO 201 (or 101) (5) CH 221 (or 121) (3) WR 121 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(4) GEO 202 (or 102) (5) CH 222 (or 122) (3) WR 122 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(3-4) GEO 203 (or ATS 210 or GEO 323) (3) WR 123 (4) MATH 112 (3) HPE 231 (3) BCC Perspectives (WC/CD/LA/SI/DP) 16-17 credits
Sophomore	(4) GEO 322 (4-5) PH 201 (or 211) (4) MTH 251 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15-16 credits	(3) GEO 265 (4-5) PH 202 (or 212) (4) ST 351 (or 314) (4) CSS 305 15-16 credits	(4) GEO 301 (3) OC 331 (4) ST 352 (or MTH 252) (3) BCC Perspectives (WC/CD/LA/SI/DP) 14 credits
Junior	(3-4) UD-Focus Area (3) CSS/GEO 335 (BCC Synthesis - ST) (4) BI 211 (3) GEO 307 (3) FOR 391 16-17 credits	(3-4) UD-Focus Area (3-4) UD-Focus Area (3) BCC Synthesis (GI) (3-4) ES -Elective 12-15 credits	(4) GEO 462 (WIC) (3-4) ES -Elective (3-4) Interp. Skills -Elective 10-12credits
Senior	(3-4) UD-Focus Area (1) GEO 407 Prof. Seminar (3-4) ES -Elective (3-4) Interp. Skills -Elective 10-13 credits	(3-4) ES -Elective (3-4) Interp. Skills -Elective 6-8 credits	(3) GEO 4XX (Capstone) (3) GEO 4XZ (3-4) Interp. Skills -Elective 9-10 credits

BS in Earth Science

Suggested Course Timeline

Applied Earth Science Option

Courses specific to the Option are listed below **in bold font**.

Individual timelines will depend on a student's background and abilities. Care should be taken with the sequence of courses and the completion of Baccalaureate Core Course (BCC) requirements. Some lower-division requirements are offered in summer session. Students who have not met the language entrance requirement will need take two foreign language courses. Additional courses will need to be taken in Junior and Senior years to bring total credits to 180. Some classes have prerequisites not listed in timeline.

	FALL	WINTER	SPRING
Freshman	(4) GEO 201 (or 101) (5) CH 221 (or 121) (3) WR 121 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(4) GEO 202 (or 102) (5) CH 222 (or 122) (3) WR 122 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15 credits	(3-4) GEO 203 (or ATS 210 or GEO 323) (3) WR 123 (4) MATH 112 (3) HPE 231 (3) BCC Perspectives (WC/CD/LA/SI/DP) 16-17 credits
Sophomore	(4) GEO 322 (4-5) PH 201 (or 211) (4) MTH 251 (3) BCC Perspectives (WC/CD/LA/SI/DP) 15-16 credits	(3) GEO 265 (4-5) PH 202 (or 212) (4) ST 351 (or 314) (4) CSS 305 15-16 credits	(4) GEO 301 (3) OC 331 (4) ST 352 (or MTH 252) (3) BCC Perspectives (WC/CD/LA/SI/DP) 14 credits
Junior	(3-4) UD-Focus Area (3) CSS/GEO 335 (BCC Synthesis - ST) (4) Adv. Earth Sci. Tech. 10-11 credits	(3-4) UD-Focus Area (3-4) UD-Focus Area (3) BCC Synthesis (GI) (4) Adv. Earth Sci. Tech. 13-15 credits	(4) GEO 462 (WIC) (3) Minor course (3) Minor course 10 credits
Senior	(3-4) UD-Focus Area (1) GEO 407 Prof. Seminar (3) Minor course (3) Minor course 10-11 credits	(3) Minor course (3) Minor course (3) Minor course 9 credits	(3) GEO 4XX (Capstone) (3) Minor course (3) Minor course 9 credits