The Department of the Geophysical Sciences (GEOS) offers unique programs of study in the earth, atmospheric, and planetary sciences. Topics include the physics, chemistry, and dynamics of the atmosphere, oceans, and ice sheets; past and present climate change; the origin and history of the Earth, moon, and meteorites; properties of the deep interior of the Earth and the dynamics of crustal movements; and the evolution and geography of life and the Earth's surface environments through geologic time. These multidisciplinary topics require an integrated approach founded on mathematics, physics, chemistry, and biology.

Both the BA and BS programs prepare students for careers that draw upon the earth, atmospheric, and planetary sciences. However, the BS degree provides a more focused and intensive program of study for students who intend to pursue graduate work in these disciplines. The BA degree also offers thorough study in the geophysical sciences, but it provides a wide opportunity for elective freedom to pursue interdisciplinary interests, such as environmental policy, law, medicine, business, and precollege education.

Program Requirements for the BA in Geophysical Sciences

The requirements for the BA degree in Geophysical Sciences involve completion of:

- six required courses that fulfill general education requirements for the physical sciences, biological sciences, and mathematics
- eight required science or mathematics courses
- seven elective courses pertinent to the major from the electives lists below, which must include:
  - one course in Computational Sciences (List 2)
  - four 20000-level courses designated GEOS in List 1
  - two more 20000-level science courses from any of Lists 1–2

Candidates for the BA in Geophysical Sciences complete a year of chemistry, a year of physics, a year of mathematics (including Calculus I-II), and a year of biology (GEOS 27300 Biological Evolution and BIOS 20198 Biodiversity).

The requirement for the third quarter of mathematics may be satisfied by either completing the calculus sequence (recommended for students taking the more introductory MATH 13000s sequence but not specifically required or recommended for the higher tracks such as MATH 15000s, as the first two quarters offer a sufficiently comprehensive calculus training for students to move on to other courses) or taking one of the designated mathematical methods courses instead. In addition, students must complete one elective course from Computational Sciences (List 2).

Students are encouraged to begin discipline-specific courses as early as possible. Required disciplinary courses include GEOS 13100 Physical Geology, GEOS 13200 Earth History, and GEOS 13300 The Atmosphere. With prior consent of the departmental counselor, students with the appropriate background may substitute a 20000-level course, which may be taken during or after the third year.

A minimum of six additional 20000-level science courses are required. At least four must be GEOS courses from List 1. Up to two may be chosen from other science courses in List 1. Up to two may be chosen from Computational Sciences (List 2). One may be a field course.

Summary of Requirements for the BA in Geophysical Sciences

GENERAL EDUCATION

<table>
<thead>
<tr>
<th>One of the following sequences:</th>
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</thead>
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<tr>
<td>CHEM 10100</td>
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<tr>
<td>CHEM 10200</td>
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<tr>
<td>&amp; CHEM 11100-11200</td>
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<tr>
<td>CHEM 12100-12200</td>
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<table>
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<th>One of the following sequences:</th>
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<tr>
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<td>MATH 16100-16200</td>
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<tr>
<td>MATH 16100-16200</td>
<td></td>
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<tr>
<td>MATH 16100-16200</td>
<td></td>
</tr>
</tbody>
</table>

Both of the following: ** 200

| BIOS 20198 | Biodiversity
| GEOS 27300 | Biological Evolution |

Total Units 600
Program Requirements for the BS in Geophysical Sciences

The requirements for the BS degree in Geophysical Sciences involve completion of:

- six required courses that fulfill general education requirements for the physical sciences, biological sciences, and mathematics
- eight required science or mathematics courses
- ten elective courses pertinent to the major from the electives lists below, which must include:
  - two courses in Computational Sciences (List 2)
  - four 20000-level courses designated GEOS in List 1
  - four more 20000-level science courses from any of Lists 1–2: up to three non-GEOS courses from List 1, up to two from List 2

Candidates for the BS in Geophysical Sciences complete a year of chemistry, a year of physics, a year of mathematics (including Calculus I-II), and a year of biology (GEOS 27300 Biological Evolution, and BIOS 20198 Biodiversity).

The requirement for the third quarter of mathematics may be satisfied by either completing the calculus sequence (recommended for students taking the more introductory MATH 13000s sequence but not specifically required or recommended for the higher tracks such as MATH 15000s, as the first two quarters offer a sufficiently comprehensive calculus training for students to move on to other courses) or taking one of the designated mathematical methods courses
instead. In addition, students must complete two elective courses from Computational Sciences (List 2). The requirements are structured to allow and encourage students to complete sequences that extend through the study of differential equations.

Students are encouraged to begin discipline-specific courses as early as possible. Required disciplinary courses include GEOS 13100 Physical Geology, GEOS 13200 Earth History, and GEOS 13300 The Atmosphere, which is the introductory sequence. With prior consent of the departmental counselor, students with the appropriate background may substitute a 20000-level course, which may be taken during or after the third year.

A minimum of eight additional 20000-level science courses are required. At least four must be GEOS courses from List 1. Up to three may be chosen from other science courses in List 1. Up to two may be chosen from Computational Sciences (List 2). One may be a field course. One may be GEOS 29700 Reading and Research in the Geophysical Sciences.

Summary of Requirements for the BS in Geophysical Sciences

GENERAL EDUCATION

One of the following sequences:

<table>
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<th>Sequence</th>
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<td>CHEM 10100 &amp; CHEM 10200</td>
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<td>CHEM 11000-11200</td>
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<td>CHEM 12100-12200</td>
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One of the following sequences:

<table>
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<tr>
<th>Sequence</th>
<th>Units</th>
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<tr>
<td>MATH 13100-13200</td>
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<tr>
<td>MATH 15100-15200</td>
<td>200</td>
</tr>
<tr>
<td>MATH 16100-16200</td>
<td>200</td>
</tr>
</tbody>
</table>

Both of the following:

- BIOS 20198 Biodiversity
- GEOS 27300 Biological Evolution

Total Units 600

MAJOR

GEOS 13100 & GEOS 13200 & GEOS 13300 Physical Geology and Earth History and The Atmosphere

CHEM 11300 or CHEM 12300 Comprehensive General Chemistry III

One of the following sequences:

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PHYS 12100-12200-12300</td>
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<tr>
<td>PHYS 13100-13200-13300</td>
<td>300</td>
</tr>
<tr>
<td>PHYS 14100-14200-14300</td>
<td>300</td>
</tr>
</tbody>
</table>

One of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 20000</td>
<td>Mathematical Methods for Physical Sciences I</td>
</tr>
<tr>
<td>MATH 20250</td>
<td>Abstract Linear Algebra</td>
</tr>
<tr>
<td>PHYS 22000</td>
<td>Introduction to Mathematical Methods in Physics</td>
</tr>
<tr>
<td>BIOS 20152</td>
<td>Introduction to Quantitative Modeling in Biology (Advanced)</td>
</tr>
<tr>
<td>MATH 13300</td>
<td>Elementary Functions and Calculus III</td>
</tr>
<tr>
<td>MATH 13500</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH 16300</td>
<td>Honors Calculus III</td>
</tr>
</tbody>
</table>

Two Computational Sciences courses from List 2

Eight electives as follows:

- Four courses designated GEOS from List 1: Physical and Biological Sciences
- Four additional courses from List 1: Physical and Biological Sciences and/or List 2: Computational Sciences, but only up to three courses may be non-GEOS courses from List 1 and only up to two courses may be from List 2.

Total Units 1800

* Credit may be granted by examination.
** Only Environmental Science and Geophysical Sciences majors may use this pairing to satisfy the general education requirement in the biological sciences. Geophysical Sciences majors can take these courses without the Biological Sciences prerequisites (BIOS 20150-20151) unless they pursue a double major in Biological Sciences. They are expected to show competency in mathematical modeling of biological phenomena covered in BIOS 20151.

‡ Only one of these electives may be a field course (GEOS 29001, GEOS 29002, GEOS 29005) and only one of these electives may be GEOS 29700 Reading and Research in the Geophysical Sciences.

§ PHYS 13100-13200-13300 or PHYS 14100-14200-14300 are the preferred courses. PHYS 12100-12200-12300 is allowable on a case-by-case basis but may not provide adequate preparation to allow for enrollment in higher level PHYS courses. Additionally, PHYS 12100 has a prerequisite of a year of chemistry. Special petition to the department counselor is required for PHYS 12100-12200-12300 approval.

% Biological Evolution has several cross-listings. Geophysical Science majors must register for it under the GEOS 27300 listing.

Lists of Elective Courses 1–2

List 1: Physical and Biological Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>GEOS 20500</td>
<td>Topics in the Geophysical Sciences **</td>
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</tr>
<tr>
<td>GEOS 21000</td>
<td>Mineralogy</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 21005</td>
<td>Mineral Science</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 21100</td>
<td>Introduction to Petrology</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 21200</td>
<td>Physics of the Earth</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 21205</td>
<td>Introduction to Seismology, Earthquakes, and Near-Surface Earth Seismicity</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 21400</td>
<td>Thermodynamics and Phase Change</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 22000</td>
<td>Origin and Evolution of the Solar System</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 22040</td>
<td>Formation of Planetary Systems in Our Galaxy: From Dust to Planetsimals</td>
<td>100</td>
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<tr>
<td>GEOS 22050</td>
<td>Formation of Planetary Systems in our Galaxy: From Planetesimals to Planets</td>
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<tr>
<td>GEOS 22060</td>
<td>What Makes a Planet Habitable?</td>
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<tr>
<td>GEOS 22200</td>
<td>Geochronology</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 23205</td>
<td>Introductory Glaciology</td>
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<tr>
<td>GEOS 23400</td>
<td>Global Warming: Understanding the Forecast</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 23800</td>
<td>Global Biogeochemical Cycles</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 23805</td>
<td>Stable Isotope Biogeochemistry</td>
<td>100</td>
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<tr>
<td>GEOS 23900</td>
<td>Environmental Chemistry</td>
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<tr>
<td>GEOS 24220</td>
<td>Climate Foundations</td>
<td>100</td>
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<tr>
<td>GEOS 24230</td>
<td>Geophysical Fluid Dynamics: Foundations</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 24240</td>
<td>Geophysical Fluid Dynamics: Rotation and Stratification</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 24250</td>
<td>Geophysical Fluid Dynamics: Understanding the Motions of the Atmosphere and Oceans</td>
<td>100</td>
</tr>
<tr>
<td>GEOS 24260</td>
<td>Radiation</td>
<td>100</td>
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<tr>
<td>GEOS 24705</td>
<td>Energy: Science, Technology, and Human Usage</td>
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<tr>
<td>GEOS 25400</td>
<td>Introduction to Numerical Techniques for the Geophysical Sciences</td>
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<tr>
<td>GEOS 26100</td>
<td>Phylogenetics and the Fossil Record</td>
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<tr>
<td>GEOS 26300</td>
<td>Invertebrate Paleobiology and Evolution</td>
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<td>Geobiology</td>
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<td>GEOS 26650</td>
<td>Environmental Microbiology</td>
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<tr>
<td>GEOS 26905</td>
<td>Topics in Conservation Paleobiology</td>
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<tr>
<td>GEOS 28000</td>
<td>Introduction to Structural Geology</td>
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<tr>
<td>GEOS 28100</td>
<td>Global Tectonics</td>
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<tr>
<td>GEOS 28300</td>
<td>Principles of Stratigraphy</td>
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<tr>
<td>GEOS 28600</td>
<td>Earth and Planetary Surface Processes</td>
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</tr>
<tr>
<td>GEOS 29700</td>
<td>Reading and Research in the Geophysical Sciences</td>
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</tr>
</tbody>
</table>

*** Petition to department counselor required to count GEOS 20500 toward degree requirements.

Field Courses in Geophysical Sciences

The department sponsors field trips that range in length from one day to several weeks. Shorter field trips typically form part of lecture-based courses and are offered each year. (The trips are open to all students and faculty if space permits.)
Longer trips are designed as undergraduate field courses, and one such course may be used as an elective science course for the major. Destinations of field courses have recently included Baja California, Death Valley, Nevada, Salton Trough, Newfoundland, and the Bahamas.

**Geophysical Sciences**

- GEOS 29001: Field Course in Geology 100
- GEOS 29002: Field Course in Modern and Ancient Environments 100
- GEOS 29005: Field Course in Environmental Science 100

**Astronomy and Astrophysics**

- ASTR 24100: The Physics of Stars 100

**Biological Sciences* **

- BIOS 20188: Fundamentals of Physiology 100
- BIOS 20189: Fundamentals of Developmental Biology 100
- BIOS 20196: Ecology and Conservation 100
- BIOS 20200: Introduction to Biochemistry 100
- BIOS 21208: Fundamentals of Molecular Biology 100
- BIOS 22243: Biomechanics of Organisms 100
- BIOS 22244: Introduction to Invertebrate Biology 100
- BIOS 22250: Chordates: Evolution and Comparative Anatomy 100
- BIOS 22362: Mammalian Evolutionary Biology 100
- BIOS 22366: Evolutionary Adaptation 100
- BIOS 22389: Marine Ecology 100
- BIOS 23404: Reconstructing the Tree of Life: An Introduction to Phylogenetics 100
- BIOS 23406: Biogeography 100
- BIOS 25206: Fundamentals of Bacterial Physiology 100

**Semester in Environmental Science/MBL**

The following courses are the College designations for the Semester in Environmental Science that is taught at the Marine Biological Laboratory (MBL) in Woods Hole, Massachusetts. Registration in ENSC 23820 Biogeochemical Analysis in Terrestrial and Aquatic Ecosystems – Marine Biological Laboratory, ENSC 24100 Ecology – Marine Biological Laboratory, and ENSC 29800 Independent Undergraduate Research in Environmental Sciences – Marine Biological Laboratory, plus one of ENSC 24200 Methods in Microbial Ecology – Marine Biological Laboratory, ENSC 24300 Roles of Animals in Ecosystems – Marine Biological Laboratory, or ENSC 28100 Quantitative Environmental Analyses – Marine Biological Laboratory is required. Admission to the Semester in Environmental Science program is by application, which must be received by the MBL generally in March of the year preceding the start of the semester. Admissions decisions will generally be sent in April. Note that these courses start at the beginning of September, typically four weeks prior to the start of the College’s Autumn Quarter, and are completed by the end of Autumn Quarter. More information on the course content, the application process, and deadlines can be found at college.uchicago.edu/academics/semester-environmental-science-ses. Students participating in the Semester in Environmental Science receive credit for four courses in environmental science.

- ENSC 23820: Biogeochemical Analysis in Terrestrial and Aquatic Ecosystems – Marine Biological Laboratory 100
- ENSC 24100: Ecology – Marine Biological Laboratory 100
- ENSC 24200: Methods in Microbial Ecology – Marine Biological Laboratory 100
- ENSC 24300: Roles of Animals in Ecosystems – Marine Biological Laboratory 100
- ENSC 28100: Quantitative Environmental Analyses – Marine Biological Laboratory 100
- ENSC 29800: Independent Undergraduate Research in Environmental Sciences – Marine Biological Laboratory 100

* Excluding courses used to meet the general education requirement for the biological sciences

**Chemistry**

- CHEM 20100-20200: Inorganic Chemistry I-II 200
- CHEM 22000-22100-22200: Organic Chemistry I-II-III 300
- CHEM 23000-23100-23200: Honors Organic Chemistry I-II-III 300
- CHEM 26100-26200-26300: Quantum Mechanics; Thermodynamics; Chemical Kinetics and Dynamics 300
- CHEM 26700: Experimental Physical Chemistry † 100

† requires CHEM 26100
Physics

PHYS 18500 Intermediate Mechanics 100
PHYS 19700 Statistical and Thermal Physics 100
PHYS 22500 Intermediate Electricity and Magnetism I 100
PHYS 22700 Intermediate Electricity and Magnetism II 100
PHYS 22600 Electronics 100

List 2: Computational Sciences

Mathematics

MATH 20000-20100 Mathematical Methods for Physical Sciences I-II § 200
MATH 15910 Introduction to Proofs in Analysis 100
or STAT 24300 Numerical Linear Algebra 100
MATH 20250 Abstract Linear Algebra 100
MATH 20300 Analysis in Rn I 100
MATH 20400 Analysis in Rn II 100
MATH 20500 Analysis in Rn III 100
MATH 21100 Basic Numerical Analysis 100
MATH 27000 Basic Complex Variables 100
MATH 27300 Basic Theory of Ordinary Differential Equations 100
MATH 27500 Basic Theory of Partial Differential Equations 100
MATH 38300 Numerical Solutions to Partial Differential Equations 100

Biological Sciences

BIOS 20152 Introduction to Quantitative Modeling in Biology (Advanced) 100

Physics

PHYS 22000 Introduction to Mathematical Methods in Physics §§ 100
PHYS 22100 Mathematical Methods in Physics §§§ 100

Statistics

Any course in statistics at the 22000 level or higher. Some recommendations follow:

STAT 22000 Statistical Methods and Applications * ‡‡ 100
or STAT 23400 Statistical Models and Methods 100
STAT 22400 Applied Regression Analysis 100
STAT 22600 Analysis of Categorical Data 100
STAT 24400-24500 Statistical Theory and Methods I-II ‡‡‡ 200
STAT 26100 Time Dependent Data 100

Computing

GEOS 25400 Introduction to Numerical Techniques for the Geophysical Sciences 100
CMSC 12100-12200-12300 Computer Science with Applications I-II-III 300
CMSC 23710 Scientific Visualization 100
CMSC 28510 Introduction to Scientific Computing 100
CMSC 34200 Numerical Hydrodynamics 100

* AP credit for STAT 22000 does not count toward the major requirements. Students with AP credit for STAT 22000 should plan to take at least one other course from List 2 (BA program) or two other courses from List 2 (BS program).

§ Recommended prerequisite is MATH 19620 or MATH 15300 or MATH 16300

 §§ Would generally substitute for MATH 20000-20100

 §§§ Recommended in addition to MATH 20000-20100 for advanced students—covers partial differential equations

 ‡‡§ Recommended for advanced students. Must be taken as a sequence to be credited. STAT 24400-24500 have no prerequisite but it is possible to take both STAT 23400 and STAT 24400-24500.

Grading

Students majoring in geophysical sciences must receive quality grades in all courses taken to meet requirements in the major.
Honors

The BA or BS degree with honors is awarded to students who meet the following requirements: (1) a GPA of 3.25 or higher in the major and of 3.0 or higher overall; (2) completion of a paper based on original research, supervised and approved by a faculty member in geophysical sciences; (3) an oral presentation of the thesis research. All theses will be examined by the supervisor and a second reader from the faculty. Manuscript drafts will generally be due in the sixth week of the quarter in which the student will graduate (fifth week in Summer Quarter), and final manuscripts and oral presentations in the eighth week (seventh week in Summer Quarter).

Students are strongly encouraged to reach out to potential faculty supervisors no later than their third year, since theses generally arise out of research projects already begun with faculty members. When a thesis topic is determined, students should notify the undergraduate adviser of their intent to complete a thesis and confirm their eligibility. GEOS 29700 Reading and Research in the Geophysical Sciences can be devoted to the preparation of the required paper; however, students using this course to meet a requirement in the major must take it for a quality grade.

Students who wish to submit a single paper to meet the honors requirement in geophysical sciences and the BA paper requirement in another major should discuss their proposals with the undergraduate advisers from both programs no later than the end of third year. Certain requirements must be met. A consent form, to be signed by the undergraduate advisers, is available from the College adviser. It must be completed and returned to the College adviser by the end of Autumn Quarter of the student’s year of graduation.

Sample BS Programs

Each student will design an individual plan of course work, choosing from a wide range of selections that take advantage of rich offerings from a variety of subdisciplines. The sample programs that appear below are merely for the purpose of illustration; many other variations would be possible. NOTE: Courses that meet general education requirements and are required for the major are not listed.

### Environmental Geochemistry

- **CHEM 26200-26300**  Thermodynamics; Chemical Kinetics and Dynamics  200
- **GEOS 21000**  Mineralogy  100
- **GEOS 23800**  Global Biogeochemical Cycles  100
- **GEOS 23805**  Stable Isotope Biogeochemistry  100
- **GEOS 23900**  Environmental Chemistry  100
- **GEOS 26650**  Environmental Microbiology  100
- **GEOS 28300**  Principles of Stratigraphy  100
- **GEOS 25400**  Introduction to Numerical Techniques for the Geophysical Sciences  100
- **STAT 23400**  Statistical Models and Methods  100

### Geochemistry

- **CHEM 26100-26200-26300**  Quantum Mechanics; Thermodynamics; Chemical Kinetics and Dynamics  300
- **GEOS 21000**  Mineralogy  100
- **GEOS 21100**  Introduction to Petrology  100
- **GEOS 22200**  Geochronology  100
- **GEOS 23800**  Global Biogeochemical Cycles  100
- **GEOS 23900**  Environmental Chemistry  100
- **MATH 20000-20100**  Mathematical Methods for Physical Sciences I-II  200

### Geophysics

- **CMSC 12100-12200-12300**  Computer Science with Applications I-II-III  300
- **GEOS 21000**  Mineralogy  100
- **GEOS 21100**  Introduction to Petrology  100
- **GEOS 21200**  Physics of the Earth  100
- **GEOS 21205**  Introduction to Seismology, Earthquakes, and Near-Surface Earth Seismicity  100
- **GEOS 28100**  Global Tectonics  100
- **PHYS 18500**  Intermediate Mechanics  100
- **PHYS 22100**  Mathematical Methods in Physics  100

### Paleontology

- **BIOS 22243**  Biomechanics of Organisms  100
- **BIOS 23289**  Marine Ecology  100
- **BIOS 23404**  Reconstructing the Tree of Life: An Introduction to Phylogenetics  100
- **GEOS 21000**  Mineralogy  100
GEOS 26300  Invertebrate Paleobiology and Evolution  100
GEOS 26600  Geobiology  100
GEOS 28000  Introduction to Structural Geology  100
GEOS 28300  Principles of Stratigraphy  100
STAT 22400  Applied Regression Analysis  100
STAT 23400  Statistical Models and Methods  100

**Physics of Climate**
GEOS 22060  What Makes a Planet Habitable?  100
GEOS 23800  Global Biogeochemical Cycles  100
GEOS 24220  Climate Foundations  100
GEOS 24230  Geophysical Fluid Dynamics: Foundations  100
GEOS 24240  Geophysical Fluid Dynamics: Rotation and Stratification  100
GEOS 24250  Geophysical Fluid Dynamics: Understanding the Motions of the Atmosphere and Oceans  100
MATH 20000-20100  Mathematical Methods for Physical Sciences I-II  200
GEOS 25400  Introduction to Numerical Techniques for the Geophysical Sciences  100
STAT 23400  Statistical Models and Methods  100

**Planetary Science**
GEOS 21200  Physics of the Earth  100
GEOS 22000  Origin and Evolution of the Solar System  100
GEOS 22060  What Makes a Planet Habitable?  100
GEOS 22200  Geochronology  100
GEOS 24220  Climate Foundations  100
GEOS 25400  Introduction to Numerical Techniques for the Geophysical Sciences  100
GEOS 28600  Earth and Planetary Surface Processes  100
ASTR 24100  The Physics of Stars  100
PHYS 18500  Intermediate Mechanics  100
PHYS 22100  Mathematical Methods in Physics  100

**Structure/Tectonics**
GEOS 21000  Mineralogy  100
GEOS 21100  Introduction to Petrology  100
GEOS 21200  Physics of the Earth  100
GEOS 21205  Introduction to Seismology, Earthquakes, and Near-Surface Earth Seismicity  100
GEOS 28000  Introduction to Structural Geology  100
GEOS 28100  Global Tectonics  100
MATH 20000  Mathematical Methods for Physical Sciences I  100
PHYS 18500  Intermediate Mechanics  100
PHYS 22500  Intermediate Electricity and Magnetism I  100
STAT 23400  Statistical Models and Methods  100
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

- Times was used instead of Trajan.
- Times was used instead of Palatino.

The editor may contact Leepfrog for a draft with the correct fonts in place.