A Brief Guide to Natural World (Physical) Core Courses in GEOG/GEOL

For anyone who is wondering about the differences in the courses and looking for the best fit.

Options to consider first

The GEO physical science core courses include 100-level courses, which introduce the breadth of a discipline in a semester, and 200-level courses, which provide a deeper focus on a topic. All courses are open to students with no prior background knowledge of the topic. All courses have three class periods a week plus a lab. GEO faculty recommend that you pick a course based on the content that most interests you.

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<tr>
<th>Course</th>
<th>Content</th>
<th>Great Core Course For:</th>
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| Earth Systems Geog 120  | A physical geography introduction to the physical systems of Earth. Topics include minerals and rocks, Earth surface processes producing landforms such as volcanoes and rivers, atmospheric processes shaping the weather, and human interactions with the physical environment. | • Anyone who wants to learn about Earth materials and processes plus weather, including artists, writers, and other communicators.  
• Content is relevant to many majors because of the focus on processes and hazards that affect business and insurance, news and politics. |
| Introduction to Geology Geol 151 | A study of the materials and processes of Earth. Topics include minerals and rocks, Earth’s interior and surface structure, surface processes producing landforms, geologic time and Earth history, Earth’s resources, and hazards. | • Anyone who wants to learn about Earth materials, history and processes, including artists, writers, and other communicators.  
• Content is relevant to many majors because of the focus on Earth materials and hazards that affect news, engineering, business and environmental science. |
| Meteorology Geog 250    | A study of weather including the atmospheric processes that shape the weather, weather systems such as storms and fronts, weather hazards, and climate change. | • Anyone who wants to learn more about the weather, including artists, writers, and other communicators.  
• Content is relevant to disciplines which are affected by weather patterns and hazards, such as business and insurance, journalism, development studies, etc. |
| Oceanography Geol 251   | A study of oceans and ocean exploration, including the nature of the ocean floor, processes which operate in oceans and at coasts, and the biology of the oceans. | • Anyone who wants to learn more about the oceans, including artists, writers, and other communicators.  
• Content is relevant to students planning to live near or focus their career on oceans and coasts, including environmental scientists and engineers. |
Specialized options (for education majors, first-year students, etc.)

• Geol 112 Earth Science for Educators in Montana has similar content to Geog 120 Earth Systems, but is taught as a May Interim course in Montana for education majors. Students must apply through Off-Campus Programs to take this course. For more information, see calvin.edu/academic/geology/academics/earthscience-ed.html.

• Geol 153 Big Sky Geology: Montana Field Experience is a field version of the Geol 151 course. Students must apply through Off-Campus Programs to take this course. For more information, see calvin.edu/academic/geology/academics/big-sky.html.

• Geol 152 Historical Geology is the second course in a two-course sequence (Geol 151 – 152) that fulfills the entire Natural World core requirement (Physical and Living World). Geog 120 may be substituted for Geol 151 in this sequence.

• Geog 181 First-Year Research in Earth Sciences: Dunes is only open to students in their first semester of Calvin College. Incoming Calvin students who want to take this course must apply through the course website. For more information, see calvin.edu/go/fyres.