

GEOSYSTEMS MINOR INSTRUCTIONS

GENERAL

Geosystems is traditionally interdisciplinary, drawing on elements of geology, geophysics, and mechanics of fluids and solids. This breadth can be obtained by combining an undergraduate major in physical and mathematical sciences with a minor in Geosystems. This minor is suitable for students interested either in future professional practice or in further graduate studies within the Department of Civil and Environmental Engineering at Berkeley and elsewhere.

REQUIREMENTS

To be considered for admission to the minor, students should have:

- Have an overall grade-point average of 3.0
- Completed the lower division prerequisite courses with a grade point average of 3.0. (These courses are Math 1A and 1B, Math 53, Math 54, Chem 1A or Chem 4A, Physics 7A, CE C30 and CE 70 (or equivalent)).
- Upon admission to the minor, completion of a minimum of five (5) courses, of which no more than one can be counted toward of the requirements of the major(s).
- A minimum of a grade-point average of 2.0 in the minor
- Completion of the minor can not delay graduation.

PROCEDURE

After completion of the prerequisite courses, students need to complete and submit to the Civil and Environmental Academic Affairs office (750 Davis Hall) a Minor Program Application form.

- The Department of Civil and Environmental Engineering will approve or deny the application. If the application is approved, the department will provide the student with a copy of the approval form and retain the original.
- Upon completion of the minor requirements, the student must complete and submit to the Civil and Environmental Engineering Department's Office of Academic Affairs the Confirmation of Completion form no later than two weeks after the end of the term in which the minor was completed.
- The department will verify the completion of the minor and send the original form to the Office of the Registrar. The department will also send a copy of the confirmation to the student's College or School and retain a copy for the department file.
- A notation in the memorandum section of the student's transcript will indicate completion of the minor.

PREREQUISITES

| Course | Units | Title |
|-----------------------|--------------|---|
| Math 1A and 1B | 4 /4 | Calculus |
| Math 53 and 54 | 4 /4 | Multivar. Calculus, Linear Algebra & Linear Equations |
| Chem 1A or Chem 4A | 4 | General Chemistry or General Chemistry & Quantitative Analysis |
| Physics 7A | 4 | Physics for Scientists and Engineers |
| CE C30 | 3 | Introduction to Solid Mechanics |
| CE 70 (or equivalent) | 3 | Engineering Geology |

REQUIRED UPPER DIVISION

| Course | Units | Title |
|---------------|--------------|---|
| CE 100 | 4 | Elementary Fluid Mechanics |
| CE 130N | 3 | Mechanics of Structures |
| CE 175 | 3 | Geotechnical & Geoenvironmental Engineering |

ANY TWO OF THE FOLLOWING UPPER DIVISION COURSES

| Course | Units | Title |
|---------------|--------------|--|
| CE 171 | 3 | Introduction to Geological Engineering |
| CE 172 | 3 | Introduction to Rock Mechanics |
| CE 173 | 3 | Groundwater and Seepage |
| CE 176 | 3 | Waste Containment Systems |
| CE 177 | 3 | Foundation Engineering Design |
| CE C178 | 3 | Applied Geophysics |