

Geophysics Track Requirements: Earth Science Major, Univ. of Oregon

- All courses must be taken for a grade (C- or better)
- Check prerequisites for all upper division courses
- Total Credits: 104

Core requirements (40 credits):

- __ EARTH 315: Earth Physics (4)
- __ EARTH 363: Computational Tools for Earth Sciences (4)
or CIS 122: Intro Programming and Problem Solving (4)
- __ PHYS 251, 252, 253: Foundations of Physics I (12)
- __ MATH 251, 252, 253: Calculus I,II,III (12)
- __ CH 221, 222: General Chem I,II (8)
or CH 224H, 225H: Honors General Chem I,II (8)

Track requirements (36 credits):

- __ EARTH 455: Mechanical Earth (4)
- __ EARTH 441 to 470 (choose two from the following) 441: Hillslope Geomorph (4) | 451: Hydrogeology (4) | 453: Tectonics (4) | 454: Fluid Dynamics (4) | 462: Environmental Geomechanics (4) | 463: Computational Earth Science (4) | 467: Fault Mechanics (4) | 468: Intro Seismology (4)
- __ MATH 256: Intro Differential Equations (4)
- __ MATH 281, 282: Several Variable Calculus I,II (8)
- __ PHYS 351, 352, 353: Foundations of Physics II (12)
or PHYS 411,412,413: Mechanics, Electricity, Magnetism (12)

Track electives (select 28 credits from the following):

- __ EARTH 410 and higher (*includes >20 courses spanning a broad swath of Earth Science topics*)
- __ EARTH 101 to 310 (up to 8 credits with average grade of B or higher)
- __ EARTH 311: Earth Materials (5) (*note pre-reqs*)
- __ EARTH 316: Intro Hydrology (4)
- __ EARTH 318: Intro Field Methods (3) (*note pre-reqs*)
- __ EARTH 331, 332: Mineralogy (5), Petrology (5) (*note pre-reqs*)
- __ EARTH 334: Sedimentology/Stratigraphy (4) (*note prereqs*)
- __ EARTH 350, 351, 352: Structural Geology, Laboratory, and Problems (3+) (*note prereqs*)
- __ EARTH 353: Geologic Hazards (4) (*note prereqs*)
- __ EARTH 401: Research (up to 4 credits; may be taken for P or P* grade)
- __ EARTH 403: Thesis (up to 4 credits; may be taken for P or P* grade)
- __ EARTH 406: Field Studies (up to 12 credits)
- __ CH (up to 4 credits) from 223: Gen Chem III (4) | 226: Hon Gen Chem III (4) | 411: Phys. Chem (4)
- __ MATH (up to 8 credits) from 341, 342: Elementary Linear Algebra I,II (4 each) | 411,412: Functions of Complex Variable I,II (4 each) | 421,422: Partial Differential Eqns I,II (4 each)
- __ CIS (up to 8 credits) from 210,211,212: Computer Science I,II,III (4 each)