Geology Track Requirements: Earth Science Major, University of Oregon

- All courses must be taken for a grade (C- or better)
- Check prerequisites for upper division courses
- Total credits: 106

Core requirements (55 credits):

__ ERTH 201, 202, 203: Intro Earth Sciences (12) ***or*** ERTH 101, 102, 103 (12)
(ERTH 10x and 20x are interchangeable, average grade of B or better required for 101, 102, 103)
__ ERTH 315: Earth Physics (4)
__ ERTH 316: Intro Hydrology (4)
__ ERTH 318: Intro Field Methods (3)
__ ERTH 363: Computational Tools for Earth Sciences (4) ***or*** CIS 122: Intro Programming and Problem Solving (4)
__ PHYS 201, 202: General Physics (8) ***or*** PHYS 251, 252: Foundations of Physics (8)
__ CH 221Z, 222Z: General Chem I, II (8) ***or*** CH 224H, 225H: Honors General Chem I, II (8)
__ MATH 251Z, 252Z: Calculus I, II (8) ***or*** MATH 246, 247: Calculus for Biological Sciences (8)
__ ERTH 418: Earth and Environmental Data Analysis (4)
or *select one of the following:* MATH 253Z: Calculus III (4) | MATH 343: Stat Models (4) | MATH 425: Stat Methods (4)

Track requirements (31 credits):

__ ERTH 331: Mineralogy (5)
__ ERTH 332: Petrology (5)
__ ERTH 334: Sedimentology and Stratigraphy (4)
__ ERTH 350,351,352: Structural Geology, Laboratory, and Problems (5)
__ ERTH 406: Field Studies (12) ***or*** ERTH 319 (4) ***and*** ERTH 406: Field Studies (8)

Track electives (Select 20 credits from the following): **suggested*

__ ERTH 410 and above*: *>20 courses spanning a broad swath of Earth Science topics, including* 416: Geophysical and Environmental Sensors (4) | 420: Geocommunication (4) | 423M: Introduction to Space Physics (4) | 434: Vertebrate Paleontology (4) | 436: Paleoecology and Functional Morphology (4) | 441: Hillslope Geomorphology (4) | 451: Hydrogeology (4) | 453: Tectonics (4) | 454: Fluid Dynamic (4 | 455: Mechanical Earth (4) | 456: Signal Processing (4) | 462: Environmental Geomechanics (4) | 468: Introduction to Seismology (4) | 471: Thermodynamic Geochemistry (4) | 473: Isotope Geochemistry (4) | 474: Soil and Environmental Chemistry (4) | 480: Volcanology (4)
__ ERTH 304 to 310 (up to 4 credits)
__ ERTH 353: Geologic Hazards (4)
__ ERTH 399: Building an Atmosphere (4)
__ ERTH 401: Research (up to 4 credits; may be taken for P or P* grade)
__ ERTH 403: Thesis (up to 4 credits; may be taken for P or P* grade)
__ ERTH 407: Current Topics Seminar (up to 3 credits; may be taken for P or P* grade)
__ BI 306 and above
__ CH 223Z: Gen Chem III (4) | 226H: Honors Gen Chem III (4) | 227Z, 228Z, 229Z: Gen Chem Lab (2 each)
__ CH 331 and above (4 each)
__ CS 210, 211, 212: Computer Science I, II, III (4 each) | 315: Intermediate Algorithms (4)
__ GEOG 321: Climatology (4) | 322: Geomorphology (4) | 323: Biogeography (4) | 360: Watershed Sci (4) | 361: Global Environmental Change (4) | 421: Adv Climatology (4) | 423: Adv Biogeography (4) | 425: Hydrology and Water Resources | 427: Fluvial Geomorphology (4) | 430: Long-term Environmental Change (4) | 485, 486: Remote Sensing I,II (4 each) | 481, 482: GIScience I, II (4 each) | 491: Adv Geographic Information Systems (4) | 494: Spatial Analysis (4) | 495: Geog Data Analysis (4)
__ MATH 256: Intro Differential Eqn (4) | 281, 282: Several-Variable Calc I, II (4 each) | 341, 342: Elem Linear Algebra I,II (4 each) | 411: Functions Complex Variable I (4) | 421M, 422: Partial Differential Eqns (4 each)
__ PHYS 203: Gen Physics (4) | 204, 205, 206: Phys Lab (2 each) | 253: Foundations Physics (4) | 290: Foundations Physics Lab (1) | 351, 352, 353: Foundations Physics II (4 each) | 411, 412, 413: Mechanics, Electricity, and Magnetism (4 each)