<table>
<thead>
<tr>
<th>Geology Degree MS</th>
<th>GEOLOGY DEGREE MS &amp; PHD continued COURSES</th>
<th>OEAS Degree Geological Oce (aka Marine Geology)</th>
<th>OEAS Degree Geophysics concentration MS &amp; PHD</th>
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</table>
| New Geology Grads Field Trip Mid October (highly recommended) | **Petrology/Geochemistry/Ore Deposits**  
  - GEO 512 Igneous Petrology (4 credits)  
  - GEO 527 Volcanology (4 credits)  
  - GEO 530 Geochemistry (3 credits)  
  - GEO 540 Economic Geology (4 credits)  
  - GEO 597 Field Mapping of Ore Deposits (3 credits)  
  - GEO 633 Geochronology and Isotope Geology (3 credits)  
  - OC 668 Theoretic Petrology (3 Credits)  
  - OC 561 Igneous And Tectonic Processes In The Ocean (3 Credits)  
  - OC 666 Stable Isotope Geochemistry (3 Credits).  
  **Structural Geology/Geophysics/Tectonics**  
  - GEO 536 Structural and Neotectonic Field Methods (3 credits)  
  - GEO 537 Tectonic Geomorphology (3 credits)  
  - GEO 561 Geology of Earthquakes (3 credits)  
  - GEO 563 Geophysics and Tectonics (4 credits)  
  - GPH 650 Geophysical Inverse Theory (4 Credits)  
  - GPH 651 Geodynamics I (3 Credits)  
  - GPH 630 Elements Of Seismology (4 Credits)  
  - GPH 641 Electromagnetic Methods In Geophysics (3 Credits)  
  - GPH 665 Geophysical Field Techniques (3 Credits)  
  - GPH 665 Geophysical Field Techniques (3 Credits)  
  - GPH 642 Earth Magnetism (3 credits)  
  **Stratigraphy/Surficial Geology/Hydrogeology**  
  - GEO 514 Groundwater Hydraulics (3 credits)  
  - GEO 532 Applied Geomorphology (3 credits)  
  - GEO 533 Coastal Geomorphology (3 credits)  
  - GEO 548 Field Research in Geomorphology and Landscape Ecology (3 credits)  
  - GEO 581 Glacial Geology (4 credits)  
  - GEO 582 Geomorphology of Forests and Streams (3 credits)  
  - GEO 586 Quaternary Paleoclimatology (3 credits)  
  - GEO 588 Quaternary Stratigraphy of North America (3 credits)  
  - OC 562 Sedimentary Processes In The Ocean Basins (3 Credits)  
  - OC 635 Applied Modeling Of Nearshore Processes (4 Credits)  
  - OC 660 Paleceanography (3 Credits)  
  - OC 662 Nearshore Hydrodynamics (3 Credits)  
  - OC 664 Nearshore Sediment Transport (3 credits)  
| **MS Seminars**  
  GEO 507 Seminar (2 credits)  
  OC 507 SEM: CEOAS Student Series (2 credits), | **OEAS 500 Cascadia Field Trip (P/N) 3**  
  **OC 607 Seminar: CEOAS Student Series 4**  
  **OC 520 The Solid Earth (fall) 4**  
  **OC 530 The Fluid Earth (fall) 4**  
  **OC 540 The Biogeochemical Earth (winter) 4**  
  **OC 561 Igneous and Tectonic Processes in the Ocean 3**  
  **OC 562 Sedimentary Processes in the Ocean Basins 3**  
  **OC 691 Proposal Writing 3 (optional for MS)**  
  + additional thesis/coursework for 45 or 108 total (MS/PHD) | **OC 599 ST: Oregon Coast Math Camp (P/N) 3**  
  [with advisor approval, may take **OEAS 500 Cascadia Field Trip (P/N) 3 instead]]**  
  **OC 607 Seminar: CEOAS Student Series 4**  
  **OC 530 The Fluid Earth (fall) or a higher level Fluid Dynamics class 4**  
  **OC 561 Igneous and Tectonic Processes in the Ocean (winter) or GEO 527 Volcanology or GEO 530 Geochemistry 3**  
  **OC 683 Data Analysis in the Frequency and Wave Number Domains 4**  
  **GPH 630 Elements of Seismology 4**  
  **GPH 650 Geophysical Inverse Theory 4**  
  **GPH 651 Geodynamics I 3**  
  **OC 691 Proposal Writing 3 (Phd, optional for MS)**  
  **MTH 581 or MTH 582 Mathematical Methods for Engineers and Scientists (recommended) 3**  
  *At least 3 other GPH courses and other relevant courses (thesis) for 45 or 108 total (MS/PHD)*** | **MS: GEO 503 Thesis (12 credits on 45 total credit program)**  
  **PHD: GEO 603 Thesis (45 credits on 108 total credit program)**  
  **MS Writing Skills: GEO 518 Geoscience Communication (3 credits)**  
  **PHD Writing Skills: OC 691 Proposal Writing (3 credits)**  
  + additional electives  

**3 research concentration courses from list in column to right (one from each)**