**INTERDISCIPLINARY SCIENCE AND TECHNOLOGY (P.S.M.)**

Professional Science Master. Major in Interdisciplinary Science and Technology.

The Professional Science Master (P.S.M.) degree is a national program offered by over 300 institutions who participate in coordination with the National Professional Science Masters Association (NPSMA). Contact the College of Graduate Studies for specific courses and requirements.

There are 3 requirements for the P.S.M. degree in Interdisciplinary Science and Technology:

- 12 credits of professional skills courses.
- 15 credits in scientific coursework in the student’s emphasis area.
- 3 credits of electives or practicum/capstone experience.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professional Skills Courses</td>
<td>12</td>
</tr>
</tbody>
</table>

Professional Skills courses are science based courses in communication, leadership, data science, and management. See the College of Graduate Studies for approved courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emphasis Areas</td>
<td>15</td>
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</table>

Select one of the following emphasis areas:
- Sustainable Soil and Land Systems (p. 1)
- Climate Change (p. 1)
- Water Resources (p. 1)
- Ecohydrological Science and Management (p. 1)
- Precision Nutrition for Animal and Human Health (p. 1)
- Sustainable Food and Fiber (p. 2)
- Geographic Information Skills, Mapping, and Monitoring (p. 2)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elective or Practicum /Capstone course</td>
<td>3</td>
</tr>
</tbody>
</table>

The elective course should complement the student’s emphasis area, but does not have to be from within that emphasis area.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Hours</td>
<td>30</td>
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</table>

**A. Sustainable Soil and Land Systems Emphasis**

Select 15 credits from the following electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENVS 428</td>
<td>Pollution Prevention</td>
</tr>
<tr>
<td>ENVS 485</td>
<td>Energy Efficiency and Conservation</td>
</tr>
<tr>
<td>ENVS 536</td>
<td>Principles of Sustainability</td>
</tr>
<tr>
<td>FISH 540</td>
<td>Wetland Restoration</td>
</tr>
<tr>
<td>FS 509</td>
<td>Principles of Environmental Toxicology</td>
</tr>
<tr>
<td>GEOG 455</td>
<td>Societal Resilience and Adaptation to Climate Change</td>
</tr>
<tr>
<td>GEOG 513</td>
<td>Global Climate Change</td>
</tr>
<tr>
<td>REM 440</td>
<td>Restoration Ecology</td>
</tr>
<tr>
<td>WR 506</td>
<td>Interdisciplinary Methods in Water Resources</td>
</tr>
</tbody>
</table>

**B. Climate Change Emphasis**

Select 15 credits from the following electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 553</td>
<td>Northwest Climate and Water Resources Change</td>
</tr>
<tr>
<td>BIOP 520</td>
<td>Introduction to Bioregional Planning</td>
</tr>
<tr>
<td>FOR 462</td>
<td>Watershed Science and Management</td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Climatology</td>
</tr>
<tr>
<td>GEOG 410</td>
<td>Biogeography</td>
</tr>
<tr>
<td>GEOG 420</td>
<td>Land, Resources, and Environment</td>
</tr>
<tr>
<td>GEOG 455</td>
<td>Societal Resilience and Adaptation to Climate Change</td>
</tr>
<tr>
<td>GEOG 513</td>
<td>Global Climate Change</td>
</tr>
</tbody>
</table>

**C. Water Resources Emphasis**

Select 15 credits from the following electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 450</td>
<td>Environmental Hydrology</td>
</tr>
<tr>
<td>FISH 540</td>
<td>Wetland Restoration</td>
</tr>
<tr>
<td>FOR 462</td>
<td>Watershed Science and Management</td>
</tr>
<tr>
<td>GEOG 524</td>
<td>Hydrologic Applications of GIS and Remote Sensing</td>
</tr>
<tr>
<td>HYDR 512</td>
<td>Environmental Hydrogeology</td>
</tr>
<tr>
<td>WR 506</td>
<td>Interdisciplinary Methods in Water Resources</td>
</tr>
</tbody>
</table>

**D. Ecohydrological Science and Management Emphasis**

Select 15 credits from the following electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 450</td>
<td>Environmental Hydrology</td>
</tr>
<tr>
<td>FISH 415</td>
<td>Limnology</td>
</tr>
<tr>
<td>FISH 430</td>
<td>Riparian and River Ecology</td>
</tr>
<tr>
<td>FISH 515</td>
<td>Large River Fisheries</td>
</tr>
<tr>
<td>FISH 540</td>
<td>Wetland Restoration</td>
</tr>
<tr>
<td>FOR 462</td>
<td>Watershed Science and Management</td>
</tr>
<tr>
<td>GEOG 524</td>
<td>Hydrologic Applications of GIS and Remote Sensing</td>
</tr>
<tr>
<td>HYDR 512</td>
<td>Environmental Hydrogeology</td>
</tr>
<tr>
<td>REM 440</td>
<td>Restoration Ecology</td>
</tr>
</tbody>
</table>

**E. Precision Nutrition for Animal and Human Health Emphasis**

Select 15 credits from the following electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 451</td>
<td>Applied Environmental and Natural Resource Economics</td>
</tr>
<tr>
<td>BE 585</td>
<td>Fundamentals of Bioenergy and Bioproducts</td>
</tr>
<tr>
<td>BE 592</td>
<td>Biofuels</td>
</tr>
<tr>
<td>FSP 438/538</td>
<td>Lignocellulosic Biomass Chemistry</td>
</tr>
<tr>
<td>FSP 536</td>
<td>Biocomposites</td>
</tr>
<tr>
<td>PLSC 407</td>
<td>Field Crop Production</td>
</tr>
<tr>
<td>PLSC 546</td>
<td>Plant Breeding</td>
</tr>
</tbody>
</table>
### F. Sustainable Food and Fiber Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGED 406</td>
<td>Exploring International Agriculture</td>
<td></td>
</tr>
<tr>
<td>FS 564</td>
<td>Food Toxicology</td>
<td></td>
</tr>
<tr>
<td>PLSC 407</td>
<td>Field Crop Production</td>
<td></td>
</tr>
<tr>
<td>PLSC 546</td>
<td>Plant Breeding</td>
<td></td>
</tr>
<tr>
<td>PLSC 551</td>
<td>Vegetable Crops</td>
<td></td>
</tr>
<tr>
<td>SOIL 417</td>
<td>Market Garden Practicum</td>
<td></td>
</tr>
<tr>
<td>SOIL 438</td>
<td>Pesticides in the Environment</td>
<td></td>
</tr>
<tr>
<td>SOIL 446</td>
<td>Soil Fertility</td>
<td></td>
</tr>
<tr>
<td>SOIL 527</td>
<td>Sustainable Food Systems</td>
<td></td>
</tr>
</tbody>
</table>

Select 15 credits from the following electives:

### G. Geographic Information, Skills, Mapping, and Monitoring Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 516</td>
<td>Image Sensors and Systems</td>
<td></td>
</tr>
<tr>
<td>FIRE 554</td>
<td>Air Quality, Pollution, and Smoke</td>
<td></td>
</tr>
<tr>
<td>GEOG 524</td>
<td>Hydrologic Applications of GIS and Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>REM 507</td>
<td>Landscape and Habitat Dynamics</td>
<td></td>
</tr>
<tr>
<td>STAT 419</td>
<td>Introduction to SAS/R Programming</td>
<td></td>
</tr>
<tr>
<td>STAT 555</td>
<td>Statistical Ecology</td>
<td></td>
</tr>
</tbody>
</table>

Select 15 credits from the following electives:

Courses to total 30 credits for this degree.