## Natural Resources Major Requirements (Complete one course from each category)

<table>
<thead>
<tr>
<th>Category</th>
<th>OSU Course</th>
<th>Umpqua CC Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consensus &amp; Natural Resources</strong></td>
<td>FES 485. *Consensus &amp; Natural Resources</td>
<td>Online at OSU</td>
</tr>
<tr>
<td><strong>Managing Natural Resources</strong></td>
<td>NR 201. Managing Natural Resources for the Future</td>
<td>FOR 111/NR 201</td>
</tr>
<tr>
<td><strong>Natural Resources Decision-Making</strong></td>
<td>NR 455. Natural Resource Decision-Making</td>
<td>Online at OSU</td>
</tr>
<tr>
<td><strong>Advanced Communications</strong></td>
<td>UCC Course: NR 295 Environmental Dispute Resolution</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>COMM 321. Introduction to Communication Theory</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>COMM 322. Small-Group Problem Solving</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>COMM 328. Nonverbal Communication</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>COMM 385. Communication and Culture in Cyberspace</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>COMM 440. Theories of Conflict and Conflict Management</td>
<td>Online at OSU</td>
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<td></td>
<td>COMM 442. Bargaining and Negotiation Processes</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>FES 430. Forest as Classroom</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>FW 489. Effective Comm. for Fisheries &amp; Wildlife Science</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>NR 312. Critical Thinking for Natural Resource Challenges</td>
<td>Online at OSU</td>
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<td></td>
<td>TRAL 493. Environmental Interpretation</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>WR 362. Science Writing</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>WR 462. *Environmental Writing</td>
<td>Online at OSU</td>
</tr>
<tr>
<td><strong>Biology I</strong></td>
<td>BI 204. *Introductory Biology I</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>BI 211. *Principles of Biology I</td>
<td>BI 211</td>
</tr>
<tr>
<td><strong>Biology II</strong></td>
<td>BI 205. *Introductory Biology II</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>BI 212. *Principles of Biology II</td>
<td>BI 212</td>
</tr>
<tr>
<td><strong>Biology III</strong></td>
<td>BI 205. *Introductory Biology III</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>BI 213. *Principles of Biology III</td>
<td>BI 213</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td>CH 121. General Chemistry</td>
<td>CH 104 or 112</td>
</tr>
<tr>
<td></td>
<td>CH 231 &amp; 261. *General Chemistry with Lab</td>
<td>CH 221</td>
</tr>
<tr>
<td><strong>Climate Science</strong></td>
<td>ATS 201. *Climate Science</td>
<td>Online at OSU</td>
</tr>
<tr>
<td></td>
<td>FW 345. Global Change Biology</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>GEOG 323. *Climatology</td>
<td>Online at OSU</td>
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<tr>
<td></td>
<td>SUS 103. *Introduction to Climate Change</td>
<td>Online at OSU</td>
</tr>
</tbody>
</table>

### Degree Requirements:
- BS in Natural Resources – Urban Forest Landscapes option requires 180 credits. At least 60 credits must be upper-division (300-400 level).
- Maximum of 124 community college credits applied to the degree.
- Available on the Corvallis and Distance campuses.
| Earth or Soil Science | CSS 205. *Soil Science  
CSS 305. Principles of Soil Science  
SOIL 205 & SOIL 206. *Soil Science with lab  
SOIL 205 & FOR 206. * Soil Science with Forest Soils Lab  
GEO 101. *The Solid Earth  
GEO 201. *Physical Geology  
GEO 202. *Earth Systems Science  
GEO 221. *Environmental Geology  
GEOG 102. *Physical Geography | SOIL 205 & 206  
SOIL 205 & 206  
Online at OSU  
G 201  
G 202  
G 221  
Online at OSU |
| --- | --- | --- |
| Ecology | BI 351. Marine Ecology (3)  
BI 370. General Ecology (3)  
BOT 341. Plant Ecology (4)  
FES 341. Forest Ecology (3) | Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU |
| Mathematics | MTH 112. *Elementary Functions  
MTH 241. *Calculus for Management and Social Science  
MTH 245. *Math for Mgmt, Life, and Social Sciences  
MTH 251. *Differential Calculus | MTH 112  
MTH 241  
Online at OSU  
MTH 251 |
| Statistics | ST 201. Principles of Statistics  
ST 351. Introduction to Statistical Methods | MTH 243  
Online at OSU |
| Animal ID | FES 412. Forest Entomology  
FW 312. Systematics of Birds  
FW 316. Systematics of Fishes  
FW 318. Systematics of Mammals  
Z 365. Biology of Insects  
Z 477. Aquatic Entomology | Online at OSU  
Online at OSU  
Online at OSU |
| Environmental Assessment & Planning | FW 462. Ecosystem Services  
GEOG 250. Land Use Planning for Sustainable Communities  
GEOG 450. Land Use in the American West  
GEOG 452. Sustainable Site Planning  
RNG 421. Wildland Restoration and Ecology  
RNG 490. Rangeland Management Planning  
SUS 304. *Sustainability Assessment  
SUS 350. *Sustainable Communities  
TRAL 456. Planning for Sustainable Recreation  
TRAL 457. Planning for Sustainable Tourism  
NR 325. Scientific Methods for Analyzing NR Problems | Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU |
| Fisheries & Marine Sciences | BI 150. Introduction to Marine Biology  
BI/FW 302. Biology and Conservation of Marine Mammals  
BI 347. Ocean in Peril  
BI 351. Marine Ecology  
FW 320. Introductory Population Dynamics  
FW 323. Mgmt Principles of Pacific Salmon in the Northwest  
FW 454. *Fishery Biology  
FW 465. Marine Fisheries  
FW 473. Fish Ecology  
FW 481. Wildlife Ecology  
OC 201. Oceanography  
OC 332. Coastal Oceanography | Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU |

Updated 10/8/18 NK
| Forestry | FE/FOR 456. *International Forestry  
FES 240. *Forest Biology  
FES 341. Forest Ecology  
FES 342. Forest Types of the Northwest  
FES/HORT 350. Urban Forestry  
FES 440. Wildland Fire Ecology  
FES/FW 445. Ecological Restoration  
FES/FW 452. Biodiversity Conservation in Managed Forests  
FES/NR 477. *Agroforestry  
FOR 346. Topics in Wildland Fire  
FOR 441. Silviculture Principles | FOR/NR 240  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
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Online at OSU  
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Online at OSU |
|---|---|
| Land and Water | UCC Course: NR 221 Water Resource Science  
FE 430. Watershed Processes  
FE 434. Forest Watershed Management  
FW 326. Integrated Watershed Management  
FW 456. Limnology  
FW 479. Wetlands and Riparian Ecology  
GEO 307. *National Park Geology and Preservation  
GEO 308. *Global Change and Earth Sciences  
GEOG 340. *Introduction to Water Science and Policy  
GEOG 440. Water Resources Mgmt in the United States  
GEOG 441. International Water Resources Management  
RNG 355. Desert Watershed Management  
RNG 455. Riparian Ecohidrology and Management  
SOIL 366. Ecosystems of Wildland Soils  
SOIL 388 Soil Systems and Plant Growth  
SOIL 395. *World Soil Resources  
SOIL 466 Soil Morphology and Classification | NR 221  
Online at OSU  
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| Range | FES 440. Wildland Fire Ecology  
FES/FW 445. Ecological Restoration  
FOR 346. Topics in Wildland Fire  
RNG 341. Rangeland Ecology and Management  
RNG 351. Range Ecology I-Grasslands  
RNG 352. Range Ecology II-Shrublands  
RNG 421. Wildland Restoration and Ecology  
RNG 441. Rangeland Analysis  
RNG 442. Rangeland-Animal Relations  
RNG 490. Rangeland Management Planning | Online at OSU  
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Online at OSU  
Online at OSU  
Online at OSU  
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Online at OSU |
| Vegetation ID | BOT 321. Plant Systematics  
BOT 414. Agrostology  
BOT 425. Flora of the Pacific Northwest  
FES 241. Dendrology  
HORT 226. Landscape Plant I: Decid. Hardwoods & Conifers  
HORT 228. Landscape Plant II: Spring Flow. Trees &Shrubs  
RNG 353. Wildland Plant Identification | FOR/NR 241  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU |
FW 320. Introductory Population Dynamics  
FW 321. Applied Community & Ecosystems Ecology  
FW 435. *Wildlife in Agricultural Ecosystems  
FW 451. Avian Conservation and Management  
FES/FW 452. Biodiversity Conservation in Managed Forests  
FW 458. Mammal Conservation and Management  
FW 481. Wildlife Ecology  
Z 350. Animal Behavior | NR 251  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
Online at OSU  
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Online at OSU  
Online at OSU |
| Ethics and Philosophy | AG 301. *Ecosystem Science of Pacific NW Indians  
ANTH 477. Ecological Anthropology  
ANTH 481. *Natural Resources and Community Values  
ANTH 482. *Anthropology of International Development  
FW 340. *Multicultural Perspectives in Natural Resources  
GEO 309. *Environmental Justice  
HST 481. *Environmental History of the United States  
NR 312. Critical Thinking for Natural Resource Challenges  
PHL 440. *Environmental Ethics  
PHL/REL 443. *World Views and Environmental Values | Online at OSU |
| --- | --- | --- |
| Natural Resource Policy | AEC 432. Environmental Law  
AEC 454. Rural Development Economics and Policy  
FE 460. *Forest Operations Regulations and Policy Issues  
FOR 460. *Forest Policy  
FOR 462. Natural Resource Policy and Law  
FW 415. Fisheries and Wildlife Law and Policy  
FW 422. Intro to Ocean Law  
PS 473. US Energy Policy  
PS 475. Environmental Politics and Policy  
PS 477. International Environmental Politics and Policy | Online at OSU |
| Political Issues | ENT 300/HORT 330. *Plagues, Pests, and Politics  
FES 454. Managing at the Wildland-Urban Interface  
FOR 462. Natural Resource Policy and Law  
FW 350. *Endangered Species, Society and Sustainability  
PS 455. *The Politics of Climate Change  
PS 475. Environmental Politics and Policy  
PS 476. *Science and Politics  
PS 477. International Environmental Politics and Policy  
TRAL 352. Wilderness Management | Online at OSU |
AEC 454. Rural Development Economics and Policy  
FOR 330. Forest Resource Economics I | Online at OSU |
| Social Issues | UCC Course: NR 243: Historical Ecology of PNW  
FES 355. Management for Multiple Resource Values  
FES 365. *Issues in NR Conservation  
FW 325. *Global Crises in Resource Ecology  
GEOG 300. *Sustainability for the Common Good  
GEOG 240. *Climate Change, Water and Society  
GEOG 430. Resilience-based Natural Resource Management  
NR 351. *When Science Escapes the Lab  
SOC 381. Social Dimensions of Sustainability  
SOC 475. Rural Sociology  
SOC 480. *Environmental Sociology  
SOC 481. *Society and Natural Resources  
SUS 420. Social Dimensions of Sustainability  
TRAL 251. Recreation Resource Management  
TRAL 351. Outdoor Recreation Mgmt on Public Lands  
TRAL 352. Wilderness Management  
TRAL 353. Nature, Eco, and Adventure Tourism  
TRAL 354. Communities, Natural Areas, and Sus. Tourism  
WGSS 440. *Women and Natural Resources | NR 243  
Online at OSU  
Online at OSU  
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| Spatial Analysis | CROP/HORT 414. Precision Agriculture  
FE 257. GIS and Forest Engineering Applications  
FW 303. Survey of GIS in Natural Resources  
GEOG 201. *Foundations of Geospatial Science and GIS  
GEOG 360. GIScience I: GIS and Theory | Online at OSU  
FOR/GIS 234  
Online at OSU  
GEOG 203  
FOR/GIS 234 |
<table>
<thead>
<tr>
<th>Urban Forest Landscapes Option Requirements (complete one course in each category unless otherwise noted)</th>
<th>OSU Course</th>
<th>Umpqua CC Course</th>
</tr>
</thead>
</table>
| Measurements | BOT 440. Field Methods Plant Ecology  
GEOG 360. GIScience I: GIS and Theory | Online at OSU  
Online at OSU |
| Botany | BOT 341. Plant Ecology  
BOT 350. Intro to Plant Pathology  
FES 412. Forest Entomology  
FOR 413. Forest Pathology | Online at OSU  
Online at OSU |
| Urban Forestry | FES/HORT 350. Urban Forestry | Online at OSU |
| Ecological Restoration | FES/FW 445. Ecological Restoration | Online at OSU |
| Arboriculture | FES/HORT 447. Arboriculture | Online at OSU |
| Planning, Policy, Management | FES/HORT 455. Urban Forest Planning, Policy, and Mgmt | Online at OSU |
| Ecosystem | FW 462. Ecosystem Services | Online at OSU |
| Sustainable Landscapes | HORT 315. Sustainable Landscapes | Online at OSU |
| Social/Political/Community Integration (Choose 11-12 credits) | ANTH 481. *NR and Community Values  
or SOC 481. *Society and NR  
FOR 462. NR Policy and Law  
or PS 475. Environmental Politics and Policy  
GEOG 451. Planning Principles for Resilient Communities  
or GEOG 452. Sustainable Site Planning | Online at OSU  
Online at OSU  
Online at OSU |

Up to 6 credits of relevant internship, projects, or study abroad may be applied in the elective requirement.
Umpqua Community College courses that fulfill OSU’s Baccalaureate Core requirements:

https://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college

<table>
<thead>
<tr>
<th>OSU Baccalaureate Core (Complete one course from each category)</th>
<th>OSU Course</th>
<th>UCC Course</th>
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<tbody>
<tr>
<td>Writing I</td>
<td>WR 121</td>
<td>WR 121</td>
</tr>
<tr>
<td>Writing II</td>
<td>WR 326</td>
<td>WR 327 or possibly fulfilled by major requirements: WR 227</td>
</tr>
<tr>
<td>Speech</td>
<td>Choose one course from list above</td>
<td>Choose one course from list above</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MTH 105 or higher</td>
<td>Fulfilled by Major Requirements: MTH 112, 241 or 251</td>
</tr>
<tr>
<td>Fitness – complete both courses</td>
<td>HHS 231 Lifetime Fitness for Health</td>
<td>HPE 295</td>
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<tr>
<td></td>
<td>HHS 241 Lifetime Fitness</td>
<td>HPE 295</td>
</tr>
<tr>
<td>Physical Science with Lab</td>
<td>Earth or Soil Science course</td>
<td>Fulfilled by Major Requirements: Early or Soil Science Core</td>
</tr>
<tr>
<td>Biological Science with Lab</td>
<td>BI 204 or 211</td>
<td>Fulfilled by Major Requirements: Biology I</td>
</tr>
<tr>
<td>Additional Science with Lab</td>
<td>BI 205 or 212</td>
<td>Fulfilled by Major Requirements: Biology II</td>
</tr>
<tr>
<td>Western Culture</td>
<td>Choose one course from list above</td>
<td>Choose one course from list above</td>
</tr>
<tr>
<td>Cultural Diversity</td>
<td>Choose one course from list above</td>
<td>Choose one course from list above</td>
</tr>
<tr>
<td>Literature &amp; Arts</td>
<td>Choose one course from list above</td>
<td>Choose one course from list above</td>
</tr>
<tr>
<td>Social Processes &amp; Institutions</td>
<td>Major Course or possible to fulfill with major requirements – consult advisor</td>
<td></td>
</tr>
<tr>
<td>Difference, Power, Discrimination</td>
<td>Choose one course from list above</td>
<td>Possible to fulfill with major requirements – consult advisor</td>
</tr>
<tr>
<td>Contemporary Global Issues</td>
<td>Upper-division course required</td>
<td>Possible to fulfill with major requirements – consult advisor</td>
</tr>
<tr>
<td>Science, Technology, Society</td>
<td>FES 485</td>
<td>FES 485</td>
</tr>
<tr>
<td>Writing Intensive Course – major specific</td>
<td>Upper-division course required</td>
<td>Fulfilled by Major Requirements</td>
</tr>
</tbody>
</table>

**OSU Contact:** College of Forestry Student Services
541-737-1594
studynaturalresources@oregonstate.edu

**Transfer Student Resources:** http://transfer.oregonstate.edu/

**UCC Contact:**
Clay Baumgartner
541-440-4683
Clay.baumgartner@umpqua.edu