

# ECOLOGICAL RESTORATION OPTION

This option is offered within the following major(s):

- Natural Resources - College of Forestry (<http://catalog.oregonstate.edu/college-departments/forestry/forest-ecosystems-society/natural-resources-bs-hbs/>)

Also available via Ecampus.

This option will help students understand complexities associated with restoration of terrestrial and aquatic ecosystems, and how restoration decisions involve significant interactions between ecological and social systems.

**Option Code: 663**

Minimum of 40 credits is required with at least 20 upper-division credits.

| Code                                                          | Title                                                       | Credits |
|---------------------------------------------------------------|-------------------------------------------------------------|---------|
| <b>Measurements</b>                                           |                                                             |         |
| Select one course from the following:                         |                                                             | 3-4     |
| BI 375                                                        | FIELD METHODS IN ECOLOGICAL RESTORATION                     |         |
| BOT 440                                                       | FIELD METHODS IN PLANT ECOLOGY                              |         |
| NR 325                                                        | SCIENTIFIC METHODS FOR ANALYZING NATURAL RESOURCE PROBLEMS  |         |
| RNG 441                                                       | RANGELAND ANALYSIS                                          |         |
| <b>Resource Economics</b>                                     |                                                             |         |
| Select one course from the following:                         |                                                             | 3-4     |
| AEC 351                                                       | *NATURAL RESOURCE ECONOMICS AND POLICY                      |         |
| AEC 352/ECON 352                                              | *ENVIRONMENTAL ECONOMICS AND POLICY                         |         |
| AEC 454                                                       | RURAL DEVELOPMENT ECONOMICS AND POLICY                      |         |
| FOR 431                                                       | ECONOMICS AND POLICY OF FOREST WILDLAND FIRE                |         |
| FOR 329                                                       | FOREST RESOURCE ECONOMICS I                                 |         |
| <b>Ecological Restoration Foundations <sup>1</sup></b>        |                                                             |         |
| BOT 321                                                       | PLANT SYSTEMATICS                                           | 4       |
| or BOT 341                                                    | PLANT ECOLOGY                                               |         |
| CH 122                                                        | *GENERAL CHEMISTRY                                          | 5       |
| or CH 232                                                     | GENERAL CHEMISTRY                                           |         |
| & CH 262                                                      | and *LABORATORY FOR CHEMISTRY 232                           |         |
| FES 445/FW 445                                                | ECOLOGICAL RESTORATION                                      | 4       |
| FW 479                                                        | WETLANDS AND RIPARIAN ECOLOGY                               | 3-4     |
| or RNG 455                                                    | RIPARIAN ECOHYDROLOGY AND MANAGEMENT                        |         |
| GEOG 450                                                      | LAND USE IN THE AMERICAN WEST                               | 3-4     |
| or GEOG 451                                                   | PLANNING PRINCIPLES AND PRACTICES FOR RESILIENT COMMUNITIES |         |
| or GEOG 452                                                   | ENVIRONMENTAL ASSESSMENT                                    |         |
| SOIL 366                                                      | ECOSYSTEMS OF WILDLAND SOILS                                | 3-4     |
| or SOIL 388                                                   | SOIL SYSTEMS AND PLANT GROWTH                               |         |
| or SOIL 466                                                   | SOIL MORPHOLOGY AND CLASSIFICATION                          |         |
| <b>Social and Ethical Considerations <sup>1</sup></b>         |                                                             |         |
| Select one course from the following:                         |                                                             | 3-4     |
| FES 350/HORT 350                                              | URBAN FORESTRY                                              |         |
| FOR 431                                                       | ECONOMICS AND POLICY OF FOREST WILDLAND FIRE                |         |
| NR 312                                                        | CRITICAL THINKING FOR NATURAL RESOURCE CHALLENGES           |         |
| PHL 440                                                       | *ENVIRONMENTAL ETHICS                                       |         |
| PHL 443/REL 443                                               | *WORLD VIEWS AND ENVIRONMENTAL VALUES                       |         |
| SOC 480                                                       | *ENVIRONMENTAL SOCIOLOGY                                    |         |
| SOC 481                                                       | *SOCIETY AND NATURAL RESOURCES                              |         |
| <b>Ecological and Natural Resource Electives <sup>1</sup></b> |                                                             |         |

Select a minimum of 9 credits from the following:

9

|                |                                                       |
|----------------|-------------------------------------------------------|
| BI 351         | MARINE ECOLOGY                                        |
| BOT 488        | ENVIRONMENTAL PHYSIOLOGY OF PLANTS                    |
| FES 440        | WILDLAND FIRE ECOLOGY                                 |
| or FOR 436     | WILDLAND FIRE SCIENCE AND MANAGEMENT                  |
| FES 452/FW 452 | BIODIVERSITY CONSERVATION IN MANAGED FORESTS          |
| FOR 441        | SILVICULTURE PRINCIPLES                               |
| FW 320         | INTRODUCTORY POPULATION DYNAMICS                      |
| FW 426         | COASTAL ECOLOGY AND RESOURCE MANAGEMENT               |
| FW 451         | AVIAN CONSERVATION AND MANAGEMENT                     |
| FW 454         | *FISHERY BIOLOGY                                      |
| FW 456         | FRESHWATER ECOLOGY AND CONSERVATION                   |
| FW 458         | MAMMAL CONSERVATION AND MANAGEMENT                    |
| FW 473         | FISH ECOLOGY                                          |
| FW 481         | WILDLIFE ECOLOGY                                      |
| NR 202         | NATURAL RESOURCE PROBLEMS AND SOLUTIONS               |
| RNG 341        | RANGELAND ECOLOGY AND MANAGEMENT                      |
| RNG 421        | WILDLAND RESTORATION AND ECOLOGY                      |
| SOIL 468       | SOIL LANDSCAPE ANALYSIS                               |
| Z 349          | *BIODIVERSITY: CAUSES, CONSEQUENCES, AND CONSERVATION |
| Z 423          | ENVIRONMENTAL PHYSIOLOGY                              |

Total Credits

40-46

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Baccalaureate Core Course (BCC)

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Writing Intensive Course (WIC)

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Up to 6 credits of appropriate internships, projects, or study abroad may be used to fulfill credit requirements in the Social and Ethical Considerations or Ecological and NR Electives blocks as approved by petition

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