2011-13 Cal Poly Catalog

Natural Resources Management & Environmental Sciences Department

BS Environmental Management and Protection

- 60 units upper division
- 2.0 GPA
- GWR
- USCP

* = Required in Major; also satisfies GE

Note: No major, support or concentration courses may be taken as credit/no credit.

MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 140 Careers in Forestry &amp; Env. Mgmt</td>
<td>1</td>
</tr>
<tr>
<td>NR 142 Environmental Management</td>
<td>3</td>
</tr>
<tr>
<td>NR 215 Land and Resource Measurements</td>
<td>2</td>
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<tr>
<td>NR 311 Environmental Measurements &amp; Interpretation</td>
<td>4</td>
</tr>
<tr>
<td>NR/LA 318 Applications in GIS</td>
<td>3</td>
</tr>
<tr>
<td>NR 326 Natural Resources Econ. &amp; Valuation</td>
<td>4</td>
</tr>
<tr>
<td>NR 335 Conflict Mgmt. in Natural Resources</td>
<td>4</td>
</tr>
<tr>
<td>NR 402 Forest Health or</td>
<td>4</td>
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<tr>
<td>NR 320 Watershed Mgmt &amp; Restoration</td>
<td>4</td>
</tr>
<tr>
<td>NR/CRP 404 Environmental Law or</td>
<td>3</td>
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<tr>
<td>NR/CRP 408 Water Law</td>
<td></td>
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<tr>
<td>NR 412 Forest and Natural Resources Senior Assessment Project or NR 461 Senior Project I or ERSC/CRP 476 or ERSC/CRP 477 or ERSC/CRP 478 or CRP/Env 479</td>
<td>3-4</td>
</tr>
<tr>
<td>NR 416 Env. Impact Analysis and Mgmt</td>
<td>4</td>
</tr>
<tr>
<td>NR 425 Applied Resource Analysis and Assessment</td>
<td>4</td>
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<tr>
<td>NR 465 Ecosystem Management</td>
<td>4</td>
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<tr>
<td>ASCI 329/BIO 263/BIO 427/PHYS 122 (11/17/15)</td>
<td>3-4</td>
</tr>
<tr>
<td>BOT 121/BIO 111/BIO 161 (B2&amp;B4)*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115 or BIO 114/BIO 162/NR 208 (7/2/13)</td>
<td>4-5</td>
</tr>
<tr>
<td>BIO 325 General Ecology or NR 306 Ecology of Natural Resources &amp; Habitat Mgmt</td>
<td>4</td>
</tr>
<tr>
<td>BRAE/NR 247/BRAE 237/BRAE 230</td>
<td>2-4</td>
</tr>
<tr>
<td>BRAE 348 Energy for a Sustainable Society or ENVE 324 Intro to Air Pollution (Area F)*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 111 Survey of Chemistry or CHEM 127 General Chemistry (B3)*</td>
<td>4-5</td>
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<tr>
<td>CHEM 312 Survey of Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 201 Physical Geology</td>
<td>3</td>
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<tr>
<td>MATH 161/221 (B1)*</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 121 College Physics I (B3)*</td>
<td>4</td>
</tr>
<tr>
<td>PSY 201/202 Introduction to Psychology (D4)*</td>
<td>4</td>
</tr>
<tr>
<td>SS 121 Introductory Soil Science</td>
<td>4</td>
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<tr>
<td>STAT 217/218 Applied Statistics (B1)*</td>
<td>4</td>
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</tbody>
</table>

Concentration courses (see below) 36

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GENERAL EDUCATION (GE)

72 units required, 24 of which are specified in Major.

→ See page 39 for complete GE course listing.
→ Minimum of 12 units required at the 300 level.

Area A Communication (12 units)

- A1 Expository Writing | 4 |
- A2 Oral Communication | 4 |
- A3 Reasoning, Argumentation, and Writing | 4 |

Area B Science and Mathematics (no additional units req’d)

- B1 Mathematics/Statistics * 8 units in Major | 0 |
- B2 Life Science * 4 units in Major | 0 |
- B3 Physical Science * 4 units in Major | 0 |
- B4 One lab taken with either a B2 or B3 course | |

Area C Arts and Humanities (20 units)

- C1 Literature | 4 |
- C2 Philosophy | 4 |
- C3 Fine/Performing Arts | 4 |
- C4 Upper-division elective | 4 |
- Area C elective (Choose one course from C1-C4) | 4 |

Area D/E Society and the Individual (16 units)

- D1 The American Experience (40404) | 4 |
- D2 Political Economy | 4 |
- D3 Comparative Social Institutions | 4 |
- D4 Self Development (CSU Area E) * 4 units in Major | 0 |
- D5 Upper-division elective | 4 |

Area F Technology Elective (upper division)

(no additional units req’d) * 4 units in Major | 48 |

FREE ELECTIVES | 0 |

180

CONCENTRATIONS (Select one)

Environmental Impact Mitigation Strategies Concentration

- BIO 427 Wildlife Management | 4 |
- CRP/NR 404 Environmental Law or CRP/NR 408 Water Resource Law and Policy | 3 |
- NR 421 Wetlands | 4 |
- ZOO 329 Vertebrate Field Zoology | 4 |

4 Approved electives | 21 |

Select 21 units from the following:

Any upper division BIO, CRP, LA, MSCI, NR, SS or ZOO course (8/20/15) 36

Environmental Policy and Management Concentration

- CRP 212 Introduction to Urban Planning | 4 |
- CRP 420 Land Use Law or POLS 341 American Constitutional Law | 4 |
- ECON 431 Environmental Economics or POLS 230 Basic Concepts of Political Thought | 4 |
- NR 435 Natural Resources Policy Analysis | 4 |
- NR/CRP 404 Env. Law or NR/CRP 408 Water Law (4) | 3 |

1 Students following Track 1 of Watershed Management and Hydrology Concentration must take NR 320.

2 Students following Track 1 of Watershed Management and Hydrology Concentration, must take PHYS 122 as a substitute is recommended. (11/17/15)

3 Students following Track 1 of Watershed Management and Hydrology Concentration must take MATH 161.

4 Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

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1 Approved electives. .......................................................... 17

Select 17 units from the following:
Pre-Environmental Law: POLS 245, 334, 343, 344, NR 339, 400;
Other:
ECON 311, 432; ENVE 330;
NR 339, 400, 420; NR/ES 406 (6/30/13)
SS 433; UNIV 330;
Any CRP or POLS course

Watershed Management and Hydrology Concentration
NR 420 Advanced Watershed Hydrology ............... 4
SS 321 Soil Morphology .................................................. 4
2 SS 440 Forest and Range Soils or ERSC 323
Geomorphology .......................................................... 4
1 Approved electives (select one track) ..................... 24

3 Track 1:
(a) Select 4 units from: BRAE 435, NR/BIO/SS 421†, or NR/HNRS 475
(b) GEOL 241 Physical Geology Laboratory (1)
(c) Select 4 units from: ENVE 434, ERSC 323, NR/BIO/SS 421†, NR/HNRS 475, PHYS 107, or SS 440
(d) MATH 162 Calculus for Life Sciences II (4)
(e) Select 11 units from: BRAE 345, NR 315, NR/HNRS 475 (1 unit max), NR 418, or STAT 313

Track 2 – Select 24 units from:
BRAE 435, ENVE 434, GEOL 241,
MATH 162, NR 260, 339, 418,
NR/BIO/SS 421, NR/CRP 408,
NR/HNRS 475 (9 units max),
PHYS 107, 122, or STAT 313

Individualized Course of Study
Select from the following: ............................................. 36
NR 339 Internship/Forest and Natural Resources (1-12)
Any course used in minor(s)

1 Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
2 If a course is taken to meet a requirement, it cannot be double-counted as an approved elective for the concentration.
3 This track is designed to prepare students to become eligible for hydrology positions and meets the criteria for employment eligibility in the federal government (GS 1315).
4 Course cannot be double-counted as an elective.