### 2009-11 Cal Poly Catalog

**Natural Resources Management Department**

**BS ENVIRONMENTAL MANAGEMENT AND PROTECTION**

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

* = Required in Major; also satisfies GE

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

#### MAJOR COURSES

- **NR 140 Careers in Forestry & Env. Mgmt** ............. 1
- **NR 142 Environmental Management** .................. 3
- **NR 215 Land and Resource Measurements** .......... 2
- **NR/LA 318 Applications in GIS** ....................... 3
- **NR 326 Natural Resources Econ. & Valuation** ...... 4
- **NR 335 Conflict Mgmt. in Natural Resources** ....... 4
- **NR 402 Forest Health or**
  - **NR 320 Watershed Mgmt & Restoration** .......... 4
- **NR/CRP 404 Environmental Law or**
  - **NR/CRP 408 Water Law** ................................ 3
- **NR 412 Forest and Natural Resources Senior Assessment Project or NR 461 Senior Project I** .... 3
- **NR 416 Env. Impact Analysis and Mgmt** ............ 4
- **NR 425 Applied Resource Analysis** ................... 4
- **NR 465 Ecosystem Management** ....................... 4
- **ASCI 329/BIO 263/BIO 427** .......................... 3-4
- **BOT 121/BIO 111/BIO 161 (B2&B4)* .................... 4
- **BIO 115 or BIO 114/BIO 162/NR 208 (7/2/13)** ...... 4-5
- **BIO 325 General Ecology or NR 306 Ecology of Natural Resources & Habitat Mgmt** .......... 4
- **BRAE/BR 247 Forest Surveying** ....................... 2
- **BRAE 348 Energy for a Sustainable Society or ENV 324 Intro to Air Pollution (Area F)*** .......... 4
- **CHEM 111 Survey of Chemistry or CHEM 127**
  - General Chemistry (B3)* ................................ 4-5
- **CHEM 312 Survey of Organic Chemistry** ........... 5
- **ENVE 330 Environmental Quality Control** ........ 4
- **GEOL 201 Physical Geology** ........................... 3
- **MATH 161/221 (B1)* .................................. 4
- **PHYS 121 College Physics I (B3)* ..................... 4
- **PSY 201/202 Introduction to Psychology (D4)*** ..... 4
- **SS 121 Introductory Soil Science** ...................... 4
- **STAT 217/218 Applied Statistics (B1)*** ............. 4
- **Concentration courses (see below)** .................. 36

**GENERAL EDUCATION (GE)**

- 72 units required, 24 of which are specified in Major.
- →See page 50 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 .......... 0

**FREE ELECTIVES ..................................................** 0

**180**

**CONCENTRATIONS (Select one)**

**Environmental Impact Mitigation Strategies Concentration**

- **BIO 427 Wildlife Management** ...................... 4
- **CRP/CRP 404 Environmental Law or CRP/CRP 408 Water Resource Law and Policy** .......... 3
- **NR/311 Environmental Interpretation** ............... 4
- **ZOO 329 Vertebrate Field Zoology** .................. 4
- **Approved electives** .................................... 21
- **Select 21 units from the following:**
  - Any upper division BIO, CRP, LA, NR, SS or ZOO course

**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** .............................. 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.
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.

---

2009-2011 Cal Poly Catalog
Select 17 units from the following:

- Pre-Environmental Law: POLS 245, 334, 343, 344, NR 339, 400;
- Other:
  - ECON 311, 432;
  - NR 339, 400, 420; NR/ES 406 (6/30/13)
  - NR/RPTA 311;
  - 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
- SS 440 Forest and Range Soils or ERSC 323
- Geomorphology (8/24/10) .................................. 4

Approved electives (select one track) .................. 24
(Revised 8/20/10)

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,
  STAT 313, CE 336, PHYS 122, SS 321

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, 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)
  .......................................................... 36

---

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.