

# Natural Resources Planning and Decision Making

Bachelor of Science (A-17F) 130\* credits

Students who study this major will learn the basics of natural resource science and the complexity of working with multiple stakeholders. Students will learn skills such as GIS and spatial analysis, planning, policy analysis, economics, multiple-objective decision making, and working with the public. They will critically engage in efforts to solve many of the complex resource management issues currently facing the United States and the world. Students will be strongly encouraged to participate in an approved internship the summer after their Junior year.

## Freshman Year

### First Semester

- (1) AGR 101 School of Agriculture Orientation
- (4) BIOL 110 Fundamentals of Biology I
- (3) CHM 111 General Chemistry I
- (4) ENGL 106 English Composition
- (3) MA 223 Introductory Analysis I (calculus)
- (15)

### Second Semester

- (4) BTNY 210 Introduction to Plant Science
- (3) CHM 112 General Chemistry II
- (3) COM 114 Fundamentals of Speech Communication
- (3) FNR 103 Intro. to Environmental Conservation
- (3) MA 224 Introductory Analysis II (calculus)
- (16)

## Sophomore Year

### Third Semester

- (3) AGECE 217 Economics
- (3) FNR 225 Dendrology
- (3) FNR 230 World's Forests & Society
- (3) FNR 241 Ecology & Systematics of Fishes & Mammals
- (3) STAT 301 Elementary Statistical Methods
- (15)

### Fourth Semester

- (3) AGRY 270 Forest Soils
- (2) BIOL 286 Introduction to Ecology
- (3) FNR 210 Natural Resource Information Management
- (3) FNR 251 Ecology & Systematics of Amphibians, Reptiles & Birds
- (3) POL 223 Introduction to Environmental Policy
- (3) Humanities elective<sup>4</sup>
- (17)

## Junior Year

### Fifth Semester

- (3) FNR 331 Forest Ecosystems
- (3) FNR 357 Fundamentals of Remote Sensing
- (3) FNR 359 Spatial Ecology and GIS
- (3) FNR 365 Natural Resources Issues, Policy & Administration
- (3) FNR 406 Natural Resource & Environmental Economics
- (3) Written or oral communication elective<sup>3</sup>
- (18)

### Sixth Semester

- (3) AGRY 399W Environmental Hydrology
- (3) FNR 375 Human Dimensions of Natural Resource Management
- (3) FNR 412 Natural Resources Decision Making
- (3) Social sciences or humanities elective<sup>4,5</sup>
- (4) Unrestricted elective
- (16)

## Senior Year

### Seventh Semester

- (1) FNR 470 Natural Resources Planning
- (3) FNR 543 Conservation Biology
- (2) FNR 572 Community Involvement in Natural Resources
- (3) Ethics elective (PHIL 111, 280 or 290)
- (3) Natural Resources elective<sup>6</sup>
- (3) Social science or humanities elective<sup>4,5</sup>
- (3) Unrestricted elective
- (18)

### Eighth Semester

- (3) FNR 408 Ecosystem Management Practice
- (3) Natural Resources elective<sup>6</sup>
- (3) Natural Resources elective<sup>6</sup>
- (3) Social science or humanities elective<sup>4,5</sup>
- (3) Unrestricted elective
- (15)

\*You must complete six hours of coursework with an international<sup>1</sup> focus and 3 credits of Multicultural Awareness<sup>2</sup>. These may overlap with elective coursework in the social science or humanities, oral or written communication, unrestricted, natural resources, specialization, or study abroad areas.

<sup>1</sup> **International Understanding electives:** 9 credits of International Understanding electives are required.

These credits are not, however, in addition to the total number of hours required, but do restrict the choice among some categories of required courses. FNR 230, required in all majors (except WPMT), provides 3 credits; thus, 6 additional credits must be selected from the following courses. For example, a student taking French 101 and 102 could use these courses to cover the requirement for Humanities and the International Understanding.

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|--------------------|---|---|
| AGEC 250, 340, 450 | ECON 370, 466                           | HORT 403                                |
| AGR 493, 495, 497  | ENGL 266, 267                           | IDIS 381                                |
| AGRY 285,350,570   | FNR 230, 460, 488                       | PHIL 330, 331                           |
| ANTH 100, 205, 578 | HIST 240, 241, 243, 245, 271, 272, 290, | POL 130, 141, 232, 235, 237, 290, 303,  |
| BTNY 201           | 323, 324, 329, 340, 341, 342, 343, 344, | 304, 342, 344, 345, 347, 433, 434, 435, |
| COM 224, 424       | 345, 439, 441, 472                      | 442, 445, 447                           |
- FLL (Arabic, Chinese, French, German, Italian, Japanese, Portuguese, Russian, or Spanish) 101, 103, 102, 201, 202, 480, 581; GER 223; RUSS 289. (Note: a minimum of six credits of a foreign language must be earned to be utilized in a plan of study.)

<sup>2</sup> **Multicultural Awareness Requirement and Courses:**

These credits are not, however, in addition to the total number of hours required, but do restrict the choice among some categories of required courses. This requirement may be met by taking AGR 201 Communicating Across Culture, AGR 496 Multicultural Professional Experience, or one of the following courses:

ANTH 303, 379	COM 376, 381	EDCI 285
ENGL 257, 358, 360	HIST 365, 366, 377, 396, 398	HK 226
IDIS 271, 280, 330, 370, 375, 376, 381	PHIL 225, 242, 330	POL 222, 326, 360, 456
PSY 225, 239, 368	SOC 220, 310, 450	SPAN 235, YDAE 385

<sup>3</sup> **Written or Oral Communications electives:** ASL 101,102, COM 200 +, ENGL 200+, or EDCI 440

<sup>4</sup> **Humanities electives:**

EDFA 200  
 ENGL 201, 227, 230, 231, 232, 235, 237, 238, 239, 240, 241, 250, 257, 262, 264, 266, 267, 276, 279,331, 333, 335, 337, 350, 351, 356, 360, 361, 364, 372, 373, 375, 376, 377, 379, 381, 382, 383, 386, 387, 396, 411, 412, 413, 414, 441, 442, 444, 462, 463, 468, 469, 492.  
 FLL (Arabic, Chinese, French, German, Italian, Japanese, Portuguese, Russian, or Spanish) 101, 103, 102, 201, 202, 480, 581; GER 223; RUSS 289. (Note: a minimum of six credits of a foreign language must be earned to be utilized in a plan of study.)  
 Any course in History, Interdisciplinary Studies, Philosophy, and/or Visual and Performing Arts

<sup>5</sup> **Other Social Sciences electives:**

AGEC 250, 305, 340, 410, 415, 450 (no more than 3 credits allowed in addition to FNR/AGEC 406)  
 EDPS 235, 265  
 Any course in Anthropology, Political Sciences, Psychological Sciences, and/or Sociology

<sup>6</sup> **Natural Resources electives:**

Select from the following list of supporting courses. Generally, students will select a set of courses which enhance an area in either spatial analysis (GIS) or decision making and policy. Courses leading to a minor will be considered on a case by case basis. FNR minors cannot be used for these electives.

Spatial Analysis: ABE 536, ASM 591F, C E 408, 503, FNR 558 and special offerings that include GIS or spatial analysis

Decision Making/Policy: AGECE 340, 415, 475H, 455, FNR 488, 575, POL 120, 300, 323, 327, 423, 435, 523, PSY 318, SOC 533 and other offerings that include policy and decision making content.