I. General Education: Foundations (15–18 units)

A. Freshman Composition (6 units)

- ☐ English 101
- ☐ English 102

_Honors Students_ ☐ English 109H

_International Students_ ☐ English 107 ☐ English 108

All Students: Mid-Career Writing Assessment (MCWA): Complete 2nd semester English Composition with a B grade or higher. Students who do not earn a grade of B or higher in 2nd semester English Composition must satisfy a college or department writing requirement. Course options for a B or higher are: AED301, AGTM422, AREC360, AREC450, AREC464, AREC479, ENGL307, ENGL308 and ENGL340.

Earning a B grade or higher in any of the above courses will complete this requirement.

B. Second Language (One of the following)

- ☐ Score the equivalent or higher of second-semester proficiency on a proficiency examination administered by the University of Arizona.
- ☐ Complete a second semester course at the post-secondary level with a grade of **C or better**.

Achieve an AP score of 3 or higher or a CLEP score of 55 or higher. [American students who are native speakers of languages other than English (e.g., Spanish, American Sign Language, Navajo) will be accommodated by the appropriate department. Foreign students who are native speakers of languages other than English may fulfill the second language requirement through proficiency in English as long as they have taken the CLEP exam upon applying to the University.]

C. Mathematics (the Math Placement Test is a pre-requisite)

- ☐ Math 109c or 112 College Algebra (3 units)
- ☐ ISTA 116 Statistical Foundations for the Information Age (4)
- ☐ Math 163 Basic Statistics (3)
- ☐ BNAD/MGMT 276 Statistical Inference in Management (3)
- ☐ SBS 200 Intro to Statistics for the Social Sciences (4)

**One intro stats course is required**

- ☐ Math 113 Elements of Calculus (3)
- ☐ Math 116 Calculus Concepts for Business Majors (3)
- ☐ Math 122a Functions for Calculus (1)
- ☐ Math 122b First Semester Calculus (3)
- ☐ Math 125 Calculus I (3)

**One calculus course is required**
Tier 1 (18 units)

A. Individuals & Societies [INDV] (2 courses) 150's

____________________

____________________

B. Natural Sciences [NATS] (2 courses) 170's

____________________

____________________

C. Traditions & Cultures [TRAD] (2 courses) 160's

____________________

____________________

Tier 2 (12 units)

A. Arts (1 course from approved list) (3 units total)

____________________

B. Humanities (1 course from approved list)

____________________

C. Natural Sciences (1 course from approved list)

____________________

D. Individuals and Societies

Satisfied by major requirements

E. Diversity Emphasis (1 course, some Tier 2 Arts, some Tier 2 Humanities and all 160A courses also can complete the diversity emphasis requirement)

____________________
IV. Environmental and Water Resource Economics

(12–15 units) All courses are 3 units unless indicated. (S) = spring (F) = fall offering

A. Communication Skills Courses (Complete 2 courses from this list)

☐ AED 301 Youth Leadership
☐ AED 309 Leadership Principles & Practice
☐ AED 311 Professional Leadership Concepts
☐ AED 409 Team & Organization Leadership
☐ AED 410 Entrepreneurial Leadership in Ag & Life Sciences
☐ AED 411 Principles & Appl. of Org. Innovation
☐ AGTM 422 Communication Knowledge in Ag & Life Sciences
☐ COMM 101 Into the Study of Communication
☐ COMM 119 Public Speaking
☐ ENGL 307 Business Writing
☐ ENGL 308 Technical Writing
☐ ENGL 340 Topics in Professional & Technical Writing
☐ ENVS 408 Scientific Writing for Environmental, Agricultural & Life Sciences*
☐ ENVS 415 Translating Environmental Science *
☐ HED 201 Foundations of Leadership
☐ HED 397b Project SOAR (2 units)

* ENVS 408 and 415 will not count as both a Communication elective and focus area course(s).

B. Computer Skills (3 units; Choose one.)

☐ ABE 120 Microcomputing Applications
☐ MIS 111 Introduction to Computing (Sp)

C. Economics (3–6 units)

☐ ECON 200 Basic Economic Issues
☐ ECON 201a Principles of Economics (Micro)
☐ ECON 201b Principles of Economics (Macro)

Alone or
Both (from transfer coursework)
V. Environmental & Water Resource Economics Courses (45 units)

A. Required Core Courses (24 units)

- AREC 304 Interm. Production and Consumption Analysis (F) (Calc. req.) **
- ECON 301 Microeconomic Analysis and Applications (S)
- ECON 331 Macroeconomic Analysis and Applications (F) ***
- AREC 339 Economic Statistics (F) (Calc. req. & ECON 200)
- AREC 360 The Poverty and Development of Nations (S)
- AREC 403 Marketing and Price Analysis (S) (AREC 339, Calc. & Intern. MicroEcon. req.)
- AREC 464 Economics of Policy Analysis (F) (Calc. req. & Intern. MicroEcon. or AREC 315)
- AREC 373 Environmental Economics (Summer)*
- AREC 476 Environmental Law and Economics (S) (Calc. & Intern. MicroEcon. req.)
- AREC 479 Economics of Water Management and Policy (F) (Calc. & Intern. MicroEcon. req.)

Choose one of these intern.microecon courses

ECON 301 & 331 will not be offered in Fall 2017 & Spring 2018, students must take AREC option or summer/winter ECON options.

**Econ 300 or 361 can substitute for this requirement. (summer/winter only)
*** Econ 330 or 332 can substitute for this requirement. (summer/winter only)

B. Focus Areas. (21 units required) Substitutions are permissible with advisor approval. Focus Area courses can be from categories of quantitative methods, environmental management, environmental law & policy, communication and environmental science. See a variety of course options on the next page.

Focus Area courses completed or are in progress (7 courses/21 units)

1.____________________________  4.____________________________  
2.____________________________  5.____________________________  
3.____________________________  6.____________________________  
7.____________________________

VI. General Electives (Units may be needed to reach 120 total units)

Adding a minor and internship credits (AREC 393 or 493) are encouraged as well

Graduation Requirements

- 18 units must come from AREC course subject courses
- 120 total units
- 42 units must come from upper division units (UD), which are courses numbered 300-499
- Mid-Career Writing Assessment (MCWA) satisfactory grade of “B” or higher in 2nd semester English composition or in a writing emphasis course.
- Minimum 2.0 GPA in major courses
- Minimum 2.0 cumulative GPA (including all UA coursework)
Focus Area (FA) course options: this list is not exhaustive, seek EWRE advisor approval prior to taking courses not listed below.

ARC 461E - Sustainable Design and the LEED Initiative
CPH 418 - Introduction to Human Health Risk Assessment
ECOL/WFSC 454 - Water Harvesting
ENVS 305 - 001 Pollution Science
ENVS 316 - 001 Soil Fertility and Plant Nutrition
ENVS 462 - Environmental Soil and Water Chemistry
ENVS 408 Scientific Writing for Environmental, Ag & Life Sciences (S)
ENVS 415 Translating Environmental Science (S)
ENVS 417 Geographic Information Systems for Natural Resources (F, S)
ENVS 418 Introduction to Human Health Risk Assessment (S)
ENVS 444 Applied Environmental Law (F)
ENVS 453 Remote Sensing of the Environment (S)
EVS 260 - 001 Environmental Studies: Ideas and Institutions
GEOG 302 Introduction to Sustainable Development
GEOG 303 Field Study in Environmental Geography
GEOG 362 - Environment and Development
GEOG 368 - The Green Economy
GEOG 371 - Principles and Practices of Regional Development
GEOG 468 - Water and Sustainability
GEOG 304 Water, Envmt & Society
GEOG 330 Introduction to Remote Sensing (F)
GEOG 362 Environment and Development (F)
GEOG 379 Urban Growth & Devlmpt
GEOG 416f GIS for the Social Sciences (S)
GEOG/AREC 471 Problems in Regional Development (F, S)
GEOS/ENVS 412A - Ocean Sciences
HIST 355 U.S. Environmental History (S)
HIST 356 Global Env History
HWRS 415 Introduction to Water Resources Policy (S)
PA 481 Environmental Policy (S)
PA 484 Environmental Mgmt
PLG/GEOG 476 - The Land Development Process
RNR 496G - Climate Assessment: Explorations in Decision Support
RNR 256 Sustainable Cities and Societies (F, S)
RNR 316 Natural Resources Ecology
RNR 321 Natural Resources Measurement (S)
RNR 384 - Natural Resources Management Practices
RNR 403 Applications of Geographic Information Systems (F, S)
RNR 480 Natural Resources Policy and Law
RNR 485a Natural Resource Economics and Planning (S)
SCI 401 - Science Communication

Environmental & Water Resource Economics
## EWRE 2017-2018

### Year 1

<table>
<thead>
<tr>
<th>Fall Semester 1st semstr.</th>
<th>Units</th>
<th>Spring Semester 2nd semstr.</th>
<th>Units</th>
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<td>ENGL102 First Year Composition</td>
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<td>MIS111</td>
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<th>Spring Semester 4th semstr.</th>
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<td>Elective</td>
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<td>Comm skills area course</td>
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<th>Spring Semester 6th semstr.</th>
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<td>Environm Econ course</td>
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<td>AREC339 Fall only</td>
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<th>Spring Semester 8th semstr.</th>
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<td>AREC403 Spring only</td>
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<td>ECON331 Fall only</td>
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<td>Elective - Upper Division</td>
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<td>Focus area course-Upper Division</td>
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<td>Elective</td>
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## AREC Course Planning Worksheet

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## Completed Units

\[
\text{Completed Units} + \text{Planned Units} = (120 \text{ Units Total Required})
\]

## Completed and In Progress UD Units

\[
\text{Completed and In Progress UD Units} + \text{Planned UD Units} = (42 \text{ Upper Division Units Required})
\]