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)

Choose one

- 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)
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 to 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  Interim. 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. & Interim. MicroEcon. req.)
- □ AREC 464  Economics of Policy Analysis (F) (Calc. req. & Interim. MicroEcon. or AREC 315)

- □ AREC 373  Environmental Economics (Summer) *

- □ AREC 376  Environmental Law and Economics (S) (Calc. & Interim. MicroEcon. req.)
- □ AREC 479  Economics of Water Management and Policy (F) (Calc. & Interim. MicroEcon. req.)

* Students must email: econreg@ell.arizona.edu if issues with enrolling in ECON courses.

**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 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 Assessmt: 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 2015-2016

## Year 1

<table>
<thead>
<tr>
<th>Fall Semester 1st semstr.</th>
<th>Units</th>
<th>Spring Semester 2nd semstr.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math112 or Math109C</td>
<td>3</td>
<td>Math113 or Math116</td>
<td>3</td>
</tr>
<tr>
<td>ENGL101 First Year Composition</td>
<td>3</td>
<td>ENGL102 First Year Composition</td>
<td>3</td>
</tr>
<tr>
<td>MIS111</td>
<td>3</td>
<td>2nd semester 2nd language</td>
<td>4</td>
</tr>
<tr>
<td>1st semester 2nd language</td>
<td>4</td>
<td>ECON200</td>
<td>3</td>
</tr>
<tr>
<td>Tier I General Education</td>
<td>3</td>
<td>Tier I General Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>16</strong></td>
<td><strong>total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

## Year 2

<table>
<thead>
<tr>
<th>Fall Semester 3rd semstr.</th>
<th>Units</th>
<th>Spring Semester 4th semstr.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH163, ISTA116, SBS200 OR MGMT276</td>
<td>3</td>
<td>T2 Arts</td>
<td>3</td>
</tr>
<tr>
<td>Tier I General Education</td>
<td>3</td>
<td>T2 Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Tier I General Education</td>
<td>3</td>
<td>T2 Natural Science</td>
<td>3</td>
</tr>
<tr>
<td>Tier I General Education</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Tier I General Education</td>
<td>3</td>
<td>Comm skills area course</td>
<td>3</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>15</strong></td>
<td><strong>total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

## Year 3

<table>
<thead>
<tr>
<th>Fall Semester 5th semstr.</th>
<th>Units</th>
<th>Spring Semester 6th semstr.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus area course-Upper Division</td>
<td>3</td>
<td>Comm skills area course</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Econ course</td>
<td>3</td>
<td>AREC360 Spring only</td>
<td>3</td>
</tr>
<tr>
<td>AREC339 Fall only</td>
<td>3</td>
<td>Focus area course-Upper Division</td>
<td>3</td>
</tr>
<tr>
<td>AREC304 Fall only</td>
<td>3</td>
<td>Focus area course-Upper Division</td>
<td>3</td>
</tr>
<tr>
<td>Focus area course-Upper Division</td>
<td>3</td>
<td>Focus area course</td>
<td>3</td>
</tr>
<tr>
<td>AREC397 Fall only</td>
<td>1</td>
<td><strong>total</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>16</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Year 4

<table>
<thead>
<tr>
<th>Fall Semester 7th semstr.</th>
<th>Units</th>
<th>Spring Semester 8th semstr.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREC479 or Environm Econ course</td>
<td>3</td>
<td>AREC403 Spring only</td>
<td>3</td>
</tr>
<tr>
<td>AREC464 Fall only</td>
<td>3</td>
<td>Focus area course</td>
<td>3</td>
</tr>
<tr>
<td>ECON331 Fall only</td>
<td>3</td>
<td>Elective - Upper Division</td>
<td>3</td>
</tr>
<tr>
<td>Focus area course-Upper Division</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td><strong>total</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>15</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### AREC Course Planning Worksheet

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th></th>
<th>Units</th>
<th></th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td>Spring</td>
<td></td>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Total</td>
<td></td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td>Spring</td>
<td></td>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Total</td>
<td></td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td>Spring</td>
<td></td>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Total</td>
<td></td>
<td>Total</td>
<td>Total</td>
</tr>
</tbody>
</table>

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

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