12. Change in Curriculum – from September 2015 UCC Meeting

**College of Agriculture and Life Sciences**
Department of Ecosystem Science and Management
Minor in Spatial Sciences
Items From September 2015 UCC Meeting
CHANGE IN CURRICULA

FROM SEPTEMBER 2015 UCC MEETING
CHANGE IN CURRICULUM

COLLEGE OF AGRICULTURE AND LIFE SCIENCES
DEPARTMENT OF ECOSYSTEM SCIENCE AND MANAGEMENT
MINOR IN SPATIAL SCIENCES
Texas A&M University
Request for a Change in Curriculum
Undergraduate □ Graduate □ Professional

1. Program request type: ☑ Undergraduate  □ Graduate  □ First Professional (e.g., DVM, JD, MD, etc.)

2. Request change for:
   □ Degree Program  ☑ Minor  □ Certificate

3. Request submitted by (Department or Program Name):
   Ecosystem Science and Management

4. Program Designation and Name
   (e.g., B.A. in History, Minor in History, Certificate in European Union):
   Minor in Spatial Sciences

5. Brief description of change:
   Deleting capstone course as required and adding new courses.

6. Rationale for change:
   The faculty decided that minors do not have adequate background for the capstone course. We are adding proposed new courses to the minor selection list.

Use the checkboxes below to make sure that all information is included.

7. a. Proposed curriculum attached.  ☑ Yes  □ No
    b. Current catalog curriculum with handwritten edits attached.  ☑ Yes  □ No
    c. Current Howdy degree evaluation with handwritten edits attached.  ☑ Yes  □ No

Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes?  □ Yes  ☑ No
    b. If yes, degree program hours will change from:  to:
    c. If yes, is the Texas Higher Education Coordinating Board form attached?  □ Yes  ☑ No


9. If proposed changes affect other unit(s), are letters of support attached?  □ Yes  ☑ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:
Dr. John Reynolds
Date

Department Head or Program Chair (Type Name & Sign)
Date

Dr. Robert Knight
Chair, College Review Committee
Date

Dr. Kim Dooley
Dean of College
Date

Dr. Tim Scott
Chair, GC or UCC
Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or sphs-a.missouri.edu
Curricular Services - 04/14

RECEIVED
CURRICULAR SERVICES
AUG 18 2015
Spatial Sciences Minor Current Catalog

ESSM 444  GEOG 462  Remote Sensing of the Environment  3
ESSM 462/GEOG 462  Advanced GIS Analysis for Natural Resource Management  3
Select one of the following:
ESSM 351  Geographic Information Systems for Resource Management  3
GEOG 390  Principles of Geographic Information Systems 3
RENR 405  GIS for Environmental Problem Solving  3
Select two of the following:
ESSM 459  Spatial Databases and Programming  6
ESSM 460  Spatial Data Acquisition with Field Methods
ESSM 464  Spatial Project Management
GEOL 352/GEOG 352  GNSS-in-the Geosciences
Total Semester Credit Hours  15

Students must complete a minimum of 6 hours in residence at the 300-400 level.

Students must maintain a 2.0 or above in minor curriculum.

Essm 461  GeoDatabas for Data Storage, Manipulation, and Analysis
Updated
Minor Field of Study
in
Spatial Sciences

A selection from among the following courses will constitute a minor field of study. (Note: the College of Agriculture and Life sciences requires a C or better in any course used for the minor.)

Select 15 hours from the following courses:

<table>
<thead>
<tr>
<th>Select from ESSM 351, GEOG 390, RENR 405 (3 hours) <strong>required</strong></th>
<th>ESSM 459 (3 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSM 444 (3 hours) <strong>required</strong></td>
<td>ESSM 460 (3 hrs) <strong>delete not taught</strong></td>
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<tr>
<td>ESSM 462 (3 hours) <strong>required</strong></td>
<td>ESSM 461(3hrs) <strong>add new course</strong></td>
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<td></td>
<td>ESSM 464 (3 hrs)</td>
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<td></td>
<td>GEOG/GEOL 352 (3 hrs)</td>
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</table>

- Minimum of 15 hours required
- Must maintain a 2.0 or above in minor curriculum.

** Note: RENR 205/215 and BIOL (any course) are prerequisites for several of the classes required for the minor in Forest Science. Students must satisfy these prerequisites or have approval from the instructor prior to taking a class.
**Area:** Spatial Sciences Minor (15-000 credits) - Not Met

**Description:** Minimum of 6 hours at 300-400 level.
Minimum of a 2.0 GPA.
No grade lower than a 'D'.

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<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute Low</th>
<th>High</th>
<th>Required</th>
<th>Required Term</th>
<th>Subject Course Title</th>
<th>Attribute C</th>
<th>Credits</th>
<th>Courses</th>
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<tbody>
<tr>
<td>No</td>
<td>AND</td>
<td>B.</td>
<td>ESSM 444</td>
<td>A.</td>
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<td>No</td>
<td>AND</td>
<td>C.</td>
<td>Technical Electives I 3hrs</td>
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<td>Select 3 hours from ESSM 351, GEOG 353, PENR 405.</td>
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<tr>
<td>No</td>
<td>AND</td>
<td>D.</td>
<td>Technical Electives II 6hrs</td>
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<td>Select 6 hours from ESSM 459, 460, 464; GEOL/GEOG 352.</td>
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Total Credits and GPA: 16

unofficial evaluation