Texas A&M University  
Departmental Request for a Change in Course  
Undergraduate • Graduate • Professional  
• Submit original form and attachments •  

1. This request is submitted by the Department of  
   Ecosystem Science and Management  

2. Course prefix, number and complete title of course:  
   RLEM 640, Wetland Delineation  

3. Change requested  
   a. Prerequisite(s): From: ____________________ To: ____________________  
   b. Withdrawal (reason): ____________________________________________  
   c. Cross-list with: ________________________________________________  
      Cross-listed courses require the signature of both department heads.  
   d. Change in course title and description. Enter complete current course title and current  
      course description in item 4; enter proposed course title and proposed course description  
      in item 5.  
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete  
      item 6. Attach a course syllabus.  

4. Complete current course title and current course description:  

5. Complete proposed course title and proposed course description (not to exceed 50 words):  

6. a. As currently in course inventory:  

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLEM</td>
<td>640</td>
<td>WETLAND DELINEATION</td>
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<tr>
<td>Lect.</td>
<td>Lab</td>
<td>SCH</td>
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<td>02</td>
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</tbody>
</table>

   b. Change to:  

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ESM</td>
<td>628</td>
<td>WETLAND DELINEATION</td>
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</tbody>
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   Approval recommended by:  
   [Signature] 8/7/08  
   Head of Department  
   Date  
   Chair, College Review Committee  
   Date  
   Dean of College  
   Date  
   Dean of College  
   Date  

   Submitted to Coordinating Board by:  
   [Signature]  
   Date  
   Effective Date  

Questions regarding this form should be directed to Sandra Williams at 845.8201.  
Curricular Services – 11/07
WETLAND DELINEATION
ESSM 628
Credit -3 (2-2)

Taught May Summer Mini-semester

Instructors:  Stephan Hatch  Robert Knight  Dale Kruse
Director  Associate Dept. Head  Curator
S.M. Tracy Herbarium  Ecosystem Science & Mgt.  S.M. Tracy Herbarium
2138 TAMU  2138 TAMU  2138 TAMU
Office:  979-845-4328  979-845-5557  979-458-4050
Cell:  979-324-6980  979-229-6195
s-hatch@tamu.edu  bob-knight@tamu.edu  dkruse@tamu.edu

Course Description: Application of the 1987 Wetland Delineation Manual in use by the Army Corps of Engineers (CORPS); field indicators of hydrophytic vegetation, hydric soils, wetland hydrology, methods for making jurisdictional determination in non-disturbed and disturbed areas, recognition of problem wetlands and technical guidelines for wetlands and sight identification of wetlands plants. Prerequisite: Graduate classification or approval of instructor.

Learning Outcomes:

1. Determine if a field site is a wetland
2. Use the Federal Wetland Delineation Manual to determine requirements for wetland determinations
3. Recognize and identify important wetlands plant genera

Expectations: Students will be expected to attend all class sessions. Successful completion of the course will require students to be working on the plant collection and studying an additional 4-6 hours each day outside of the 7 am to 5 pm daily schedule. Total class and outside time will be about 80 hours from 8:00 am on the first day until 3:00 pm on day six. Personal appointments and business should be taken care of prior to the week of class.

Required Text: Required readings and notes will be on sale at Copy Corner on Texas Ave across from Outback Steakhouse. The cost will be about $50 and there are four packets. Copy Corner is open on Saturday and Sunday. The Aquatic and Wetland Plants of Southeastern United States: 2 volumes - Monocotyledons and Dicotyledons are the required texts (about $130). The books will be at the MSC Bookstore. These items must be purchased prior to the first day of class.

Other required items: NO FLIP-FLOPS in the field!! If you show up in flip-flops you will not be allowed in the field. You will need rubber boots or old tennis shoes for going into water or muddy areas, long pants for walking through briars and poison ivy, sun screen, insect repellant, water bottle for drinking and wetting soils for color and texture determinations, field notebook for keeping notes in about the sites and collected plants, knife (old) for trimming soil profiles, backpack to put everything in, plant press with ~20 cardboards (plant presses, cardboards and straps are available from the Range Club for $40 - see Dr. Knight), plastic garbage bags to put plants in before they are pressed, pencils for field work, and 1 inch or larger - 3 ring binder for notes.
WETLAND DELINEATION

ESSM 628

Time: May 19-24, 2008

Rooms: ANIN 317, ANIN 103A and S.M. Tracy Herbarium at the Univ. Services Building

Grading: Field Determinations, Delineation 60 points (2 determination sheets, each 5 points, Tues; 2 determinations sheets, each 10 points, Wed; 2 determination sheets, each 10 points, and a delineation map, 10 points, Friday)

Final Determination, Delineation map 120 points (3 determination sheets, each 30 points, and a delineation map, 30 points, Sat)

Quizzes 3 @ 20 points each = 60 Points

Homework 25 Points

Plant Collection and Plant Profile Pages 185 points
30 plants – you need a minimum of 2 samples of each species; collect from obligate and facultative-wet (facw, facw-, facw+) on the list provided (at Copy Corner). Due June 1. Make 10 plant profile pages. Choose plants in consultation with instructor. Due June 8.

Collection graded on:
- Identification 30
- Quality of specimen 60
- Labels 20
- Field Book 30
- Plant profile pages 45
- Total points 185

Plant identification test over 20 genera 60 points
(Family, genus and spelled correctly)

Final Exam 150 points

Total 660 points

Grading policy: Missed tests, late work and absences will be handled according to University Rule 7. Late work for unexcused absences will be penalized 10% of the total points per day late. There will be no makeup exams or quizzes for unexcused absences. Grades will follow A=100%-90%, B=89.5%-80%, C=79.5%-70%, F=<69.5% (http://student-rules.tamu.edu/rule7.htm)
RLEM 440/ESSM 628  
Summer 2008  
Lecture and Laboratory Schedule  

April 30 - Wednesday 3-5 pm  
Class meeting to go over plant collecting, pressing, label, and field book - Hatch, Knight, Kruse  

Day 1 – Monday, May 19 (classroom)  
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:00 - 8:20</td>
<td>Introduction and Course Objectives - Hatch, Knight, Kruse</td>
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<td>8:20 - 8:30</td>
<td>Safety Briefing - Kruse</td>
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<tr>
<td>8:30 - 9:15</td>
<td>Pre-test and Break - Kruse</td>
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<tr>
<td>9:15 - 10:00</td>
<td>Break</td>
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<tr>
<td>10:00 - 10:45</td>
<td>1987 Federal Manual, Background, Purpose, and Scope - Kruse</td>
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<tr>
<td>10:45 - 11:30</td>
<td>Technical Guidelines – Kruse</td>
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<tr>
<td>11:30 - 1:00</td>
<td>Lunch</td>
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<tr>
<td>1:00 - 2:30</td>
<td>Hydrophytic Vegetation, Fac-neutral test - Hatch</td>
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<tr>
<td>2:30 - 2:45</td>
<td>Break</td>
</tr>
<tr>
<td>2:45 - 4:15</td>
<td>Wetland Hydrology - Knight</td>
</tr>
<tr>
<td>4:15 - 4:30</td>
<td>Break</td>
</tr>
<tr>
<td>4:30 - 5:30</td>
<td>Wetland Hydrology – Knight</td>
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<tr>
<td>5:30 - 7:00</td>
<td>Dinner</td>
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<tr>
<td>7:00 - 9:00</td>
<td>Cyperaceae and Juncaceae genera characteristics, Plant identification test - Hatch</td>
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<tr>
<td>9:00 - 9:30</td>
<td>Preparing a determination sheet - Kruse</td>
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Day 2 – Tuesday, May 20 (field morning, classroom afternoon and evening)  
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00 - 12:00</td>
<td>Site 1- Field Exercise - soil, vegetation, hydrology examples, wetland delineation, plant collecting</td>
</tr>
<tr>
<td>12:00 - 1:00</td>
<td>Lunch, pressing plants, review notes</td>
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<tr>
<td>1:00 - 2:30</td>
<td>Hydric Soils - Knight</td>
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<tr>
<td>2:30 - 3:00</td>
<td>Break</td>
</tr>
<tr>
<td>3:00 - 3:45</td>
<td>Use of Soil Surveys - Knight</td>
</tr>
<tr>
<td>3:45 - 4:30</td>
<td>Routine Methods (sites less than five acres and greater than 5 acres) - Kruse</td>
</tr>
<tr>
<td>4:30 - 4:45</td>
<td>Break</td>
</tr>
<tr>
<td>4:45 - 5:30</td>
<td>Routine Methods (sites less than five acres and greater than 5 acres) - Kruse</td>
</tr>
<tr>
<td>5:00 - 7:00</td>
<td>Dinner</td>
</tr>
<tr>
<td>7:00 - 7:45</td>
<td>Soil Color - Knight</td>
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<tr>
<td>7:45 - 9:00</td>
<td>Work on plant collections, field books, and labels</td>
</tr>
</tbody>
</table>
Lecture and Laboratory Schedule (continued)

Day 3 – Wednesday, May 21 (field morning, classroom afternoon and evening)

7:00 - 8:00   Site 2 - wetland determinations and delineation (> 5 ac method)
8:00 - 11:45 Field Exercise - wetland determinations
11:45 - 1:30 Lunch, pressing plants, preparing labels
1:30 - 2:50   Federal Regulatory Jurisdiction - Knight
2:50 - 3:05   Break
3:05 - 5:00   Soil Taxonomy - Knight
5:00 - 5:45   Comprehensive Methods - Kruse
5:45 - 7:00   Dinner, plant collections
7:00 - 8:30   Atypical (Disturbed) and Problems Areas - Kruse

Day 4 – Thursday, May 22

Work on plant collections and review for test.

Hatch, Kruse and Knight available in lab for help from 8 am to 4:30 pm.

Day 5 – Friday, May 23 (field morning, classroom afternoon and evening)

7:00 - 11:00 Site 3 - Comprehensive field methods
11:00 - 2:00 Lunch, work on plant collections
2:00 - 3:00 Water of the United States
3:30 - 3:45 Break
3:45 - 4:30 Review for plant identification test
4:30 - 5:30 Plant identification test
5:30 - 7:00 Dinner and Review for test - students ask questions, we will answer

Day 6 – Saturday, May 24 (field morning, classroom afternoon)

7:00 - 11:30 Site 4 - Final determination and delineation exam
11:30 - 1:00 Lunch and Study for Test
1:00 - 2:00 Final Test
2:00 - 2:30 Review of Test
2:30 - 2:45 Professionalism and ethics in the environmental field – Hatch
2:45 - 2:55 Course Evaluations
2:55 - 3:00 Presentation of Certificates of Completion - ALL
3:00   Adjourn Class
Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu

Academic Integrity

For additional information please visit: http://www.tamu.edu/aggiehonor
“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

Helpful Websites

Academic Calendar   http://admissions.tamu.edu/Registrar/General/Calendar.aspx
Final Exam Schedule http://admissions.tamu.edu/Registrar/General/FinalSchedule.aspx
On-line Catalog     http://www.tamu.edu/admissions/catalogs/
Student Rules       http://student-rules.tamu.edu/