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 ____________________________

2. Course prefix, number and complete title of course: ____________________________
   [FRSC 620, Advances and Issues in Forest Science]

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>
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<tbody>
<tr>
<td>FRSC</td>
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<td>ADVANCES &amp; ISSUES IN FRSC</td>
</tr>
<tr>
<td>Lect</td>
<td>Lab</td>
<td>SCH</td>
</tr>
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<td>0 2 0 3 0 5 0 6 0 0 0 5 0 8 4 1 0 0 3 6 3 2 6</td>
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</table>

   b. Change to:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
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<tbody>
<tr>
<td>ESSM</td>
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<td>CURRENT ISSUES IN ESSM</td>
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<tr>
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<td>Lab</td>
<td>SCH</td>
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<td>0 2 3 0 5 0 6 0 0 0 5 0 8 4 1 0 9 - 1 0 0 3 6 3 2</td>
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</tbody>
</table>

   Approval recommended by: ____________________________ 8/7/08

   Chair, College Review Committee 9/10/08

   Dean of College ____________________________ 11/07

   Date

Questions regarding this form should be directed to Sandra Williams at 845-8201.
Curricular Services – 11/07


dated 6 C18

1 of 6 C18
ESSM 601 CURRENT ISSUES IN ECOSYSTEM SCIENCE AND MANAGEMENT
Spring 2009
Wednesday 1:50 – 3:40 PM
Horticulture Forest Science Building (HFSB) 124

Course Description and Prerequisites

Define the social and scientific context for ecosystem science and management; Evaluate current social, economic and environmental issues confronting forest, rangeland, wetland and riparian ecosystems and implications for ecosystem services, resource management, research and policy; Develop professional communication skills.

Prerequisites: Graduate classification.

Course Learning Outcomes:

Following completion of the course, the student will be able to:

1) Define the scientific and social contexts for the science and management of natural and managed ecosystems;
2) Evaluate current social, economic and environmental issues confronting forest, rangeland, wetland and riparian ecosystems and implications for ecosystem services, resource management, research and policy
3) Synthesize the multidisciplinary implications of current issues facing renewable natural resource management, research, and policy; and
4) Communicate research findings and their implications through writing and speaking.

Instructor Information

Dr. Mark Tjoelker, Department of Ecosystem Science and Management
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Email: m-tjoelker@tamu.edu

Dr. Diana M. Burton, Department of Ecosystem Science and Management
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Phone: 979-845-2577
Email: d-burton@tamu.edu

Office Hours
By appointment. Please feel free to contact us anytime with your questions or comments. Email is the most efficient way of communication and to arrange a convenient time to meet.
Textbooks and/or Resource Materials

A companion website for the course is located in Blackboard Vista. As a registered student, you will have access to the website through the worldwide web. The website is an essential course tool. The course page will have links to the required readings posted for each week. The weekly readings are from the primary peer-reviewed literature. There is no required textbook, although several supplemental texts are listed below.

As a registered student, the following steps will enable you to access the course website:

1. Use the following URL to access Vista: http://elearning.tamu.edu/
2. Click on the “TAMU” link
3. Login using your official TAMU user name and password. Click on “OK”.
4. Click on the ESM 601 link to find course information and readings and to post your assignments.

Course Format

This two-credit hour lecture course is organized into weekly topics, each led by a different guest professor in the Department of Ecosystem Science and Management. Each weekly topic will have selected readings and materials available on line through Blackboard Vista. The aim is to define the scope and breadth of issues and approaches to ecosystem science and management and to engage each other in discussion of important scientific and social issues.

Assignments and Grading Policies

1) Required reading, discussion questions, and class participation
Each participant will be expected to read assigned material before each class period and actively engage in class discussions and related lectures or activities led by faculty guests. Therefore, attendance at class sessions is expected. The classroom activities may include a guest research seminar focused on the topic, but may also involve other activities, such as organized debates, hands-on computer simulations, reviews, or role-playing exercises. Therefore, do not assume that material in the readings will be covered in class.

For each weekly topic (we plan a total of eight topics in the course), prepare and post at least one discussion question or comment based on each reading assignment. These questions or comments should be brief (1-3 sentences in length) and be posted online in Blackboard Vista in the “Discussions” section. We will address your questions and comments in class as time permits. The objectives of these required “daily questions” are to:

- synthesize the course material and enhance your classroom experience;
- practice critical thinking and evaluation;
- provide feedback on your level of understanding;
- adjust the classroom focus to issues you find interesting and important.

What types of questions? A good question indicates some depth of thought. A question could be something you don’t understand or that seems to contradict something else we’ve read or covered or something that was not clarified. Comments could for instance, indicate what you think is an important policy implication or linkage to other aspects of ecology, public perception, etc.
Class participation will be evaluated based on your contributions in the discussion postings (described above) and the class sessions in furtherance of a lively and informed debate of issues in ecosystem science and management. It is in your best interest to read all materials before class and come prepared to discuss or ask pertinent questions.

2) The journal manuscript review is a writing assignment in which you select one published paper appearing in a peer-reviewed scientific journal (within the last two years) relating to a current major issue or scientific topic in ecosystem science. Pre-approval of the selected article by the instructors is required. You will assess the technical quality and scientific importance of the paper in terms of 1) the scientific approach used; 2) the questions, issues, or hypotheses examined; 3) validity of the methods and techniques; 4) the soundness of the conclusions reached by the authors, given their study design and data; and 5) the relative importance of the paper in the field and to ecosystem science and management in general. The review should be 2 to 4 pages in length (see our “How to write a manuscript review” handout).

3) The journal article presentation is a detailed oral presentation of a scientific paper appearing in a peer-reviewed journal (within the last two years) selected by the student and approved by the instructors. In this presentation, you will describe the study and its findings and discuss how the work contributes to its scientific field. In addition, you should discuss why it is important to understanding current environmental, social and economic issues confronting natural or managed ecosystems and the multidisciplinary implications of this work for renewable natural resource management, research, or policy. The presentation should be 15-20 minutes in length (see our “How to prepare and present a professional talk” handout). Two presentations are required. Constructive peer review from the students and instructors will be provided.

4) The topic summary is an essay assignment designed to enable you to synthesize and evaluate the reading assignments and accompanying presentations on several of the scheduled major course topics of your choice. Three topic summaries, each 1 to 2 pages in length, are required.

Evaluation and Course Grades*

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Weighting%</th>
<th>Due Date(s)</th>
</tr>
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<tbody>
<tr>
<td>1. Class participation</td>
<td>30</td>
<td>Each week (including 10 discussion posts)</td>
</tr>
<tr>
<td>2. One journal manuscript review</td>
<td>15</td>
<td>Week 5</td>
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<tr>
<td>3. Two journal article presentations</td>
<td>40</td>
<td>Week 7-8 and week 13-14</td>
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<tr>
<td>4. Three topic summaries</td>
<td>15</td>
<td>The week following the topic presentation</td>
</tr>
</tbody>
</table>

*Final course letter grade: A ≥ 90 %, B ≥ 80 %, C ≥ 70 %.

Other Important Course Policies

Late assignments. Assignments have specific due dates and times. In fairness to those who are on time with their work, 10% will be deducted from the assignment grade for each 24 hours late. For example, an assignment worth 20% due in class on Thursday and turned in Friday morning will lose 10% of the 20% (2%) for lateness.

For any other questions or concerns, please refer to http://student-rules.tamu.edu
Academic Integrity Statement and Policy

"An Aggie does not lie, cheat or steal or tolerate those who do."

Scholarship depends upon open and honest inquiry. Students have an ethical and moral responsibility to avoid cheating and to help prevent others from cheating. Texas A&M University expects academic integrity and strictly enforces policies against any form of scholastic dishonesty (see the Honor System website: http://www.tamu.edu/aggiehonor/). Please review the Student Rules at http://student-rules.tamu.edu/for more information regarding these policies. Sanctions range from grade penalties (e.g., F*, 0 on an assignment), probation, and expulsion from the University. The Texas A&M University Student Rules and Honor System define several forms of academic dishonesty, these include:

1. Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise.
2. Fabrication: Making up data or results, and recording or reporting them; submitting fabricated documents.
3. Falsification: Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
4. Multiple Submission: Submitting substantial portions of the same work (including oral reports) for credit more than once without authorization from the instructor of the class for which the student submits the work.
5. Plagiarism: The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
6. Complicity: Intentionally or knowingly helping, or attempting to help, another to commit an act of academic dishonesty.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal antidiscrimination 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 Department of Student Life, Services for Students with Disabilities in Room B-118 in the Cain Building, or call 845-1637.
Course Topics and Calendar of Activities

Topics may differ from the example schedule shown, but will be drawn from areas of expertise and faculty of the Department of Ecosystem Science and Management

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Leader</th>
<th>Discussion posts, Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TBA</td>
<td>An ecologist's perspective on ecosystem science and management</td>
<td>M. Tjoelker</td>
<td>Posting 1</td>
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<tr>
<td>2</td>
<td></td>
<td>A social scientist's perspective on ecosystem science and management</td>
<td>D. Burton</td>
<td>Posting 2</td>
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<tr>
<td>3</td>
<td></td>
<td>Ecological economics and ecosystem services in a changing world</td>
<td>TBA</td>
<td>Posting 3</td>
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<tr>
<td>4</td>
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<td>The science, economics, and policy of global climate change</td>
<td>TBA</td>
<td>Posting 4</td>
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<tr>
<td>5</td>
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<td>Spatial sciences and remote sensing: Tools and applications</td>
<td>TBA</td>
<td>Posting 5</td>
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<tr>
<td>6</td>
<td></td>
<td>Managing genetic diversity, modified organisms, and ecosystems</td>
<td>TBA</td>
<td>Posting 6</td>
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<tr>
<td>7</td>
<td></td>
<td><strong>Journal article presentations</strong></td>
<td>Students</td>
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<tr>
<td>8</td>
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<td><strong>Journal article presentations</strong></td>
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<tr>
<td>9</td>
<td></td>
<td>Invasive species and biodiversity</td>
<td>TBA</td>
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<td>10</td>
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<td>Urban ecosystem issues</td>
<td>TBA</td>
<td>Posting 8</td>
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<td>11</td>
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<td>Ecohydrology and water policy</td>
<td>TBA</td>
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<tr>
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<td>Forest and rangeland management perspectives</td>
<td>TBA</td>
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<tr>
<td>13</td>
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<td><strong>Journal article presentations</strong></td>
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<tr>
<td>14</td>
<td></td>
<td><strong>Journal article presentations</strong></td>
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