Course Description
Restoration Ecology (ESSM 630) is a Web-based, graduate-level course offered for academic credit by Texas A&M University. This course explores restoration ecology and ecological restoration through an examination of restoration strategies, current literature, case studies and problems, with the goal of understanding the limitation, socioeconomic considerations, and ecological potentials of this discipline.

The course will be delivered using course website, eLearning, eLearning discussion boards and email.

Instructor
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Current Assignment
Chief of Party
Bor, South Sudan
The Borlaug Institute for International Agriculture
Texas A&M University

Course Moderator
Sasathorn “Sasa” Tapaneeyakul
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Texas A&M University
Centeq 253
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Prerequisites
Graduate standing

Learning Outcomes
1-Recognize causes and symptoms of ecosystem degradation
2-Develop restoration strategies that address the causes of degradation
3-Develop restoration strategies that repair natural recovery processes

Grade Distribution
(100-90 = A, 80-89 = B, 70-79 = C, 60-69 = D, below 60 = F)

Late Work Policy
Assignments due on assigned date and time unless special arrangements have been made for later date.

Textbook

The textbook is available to students online at no cost. This may be of use to those of you who have not received your textbook. You will need your NetID and Password to access the electronic book. Please note that the electronic book will only allow you to view one page of the textbook at a time. However, you can search the textbook, and a table of contents is available so that you may visit any chapter you like.
The easiest way to get to the book is to follow the steps below:

1. Visit [https://library.tamu.edu/](https://library.tamu.edu/)
2. Type in “Steven Whisenant” in the search box. Click Search.
3. Click on the search result #2 – “Repairing damaged wildlands a process-oriented, landscape-scale approach”
4. Click on the search result #1 – “Repairing damaged wildlands a process-oriented, landscape-scale approach” for the online access. If accessing from on-campus, a separate online textbook page will show up. If accessing from off-campus, you will be prompted to enter your TAMU NetID information and be redirected to the online textbook page.

**Course Website and eLearning**

Materials for this course, including articles, can be accessed at [http://essmonline.tamu.edu/essm630/](http://essmonline.tamu.edu/essm630/).

The eLearning portion of this course (refer to the course website for details) will be used to conduct class discussions, submit assignments, and to check grades. The course Schedule & Assignments and the Week at a Glance pages will guide you through the assignments for each week. To access the eLearning portion of ESSM 630:

1. Go to [http://elearning.tamu.edu/](http://elearning.tamu.edu/)
2. Click “TAMU (NetID).” Use your NetID and Password that you created for your Neo e-mail account to access the class.
3. Once you are in eLearning, select **ESSM 630** to enter the course. The first page you see will list the assignments for the current week.

*For questions regarding course content, please contact Dr. Whisenant at s-whisenant@tamu.edu or Sasa at sasatap@tamu.edu.*

**Course Objectives**

Review and discuss fundamental concepts, current literature, and contemporary topics relating to ecological restoration in natural ecosystems. This includes the theoretical development of restoration ecology and its application – ecological restoration. The relationship with conservation biology will be explored. The goal is to inform, exchange views, and develop critical thinking skills. Case studies will be developed and examined as a means of exploring alternative objectives, problems, limitations, ecological potentials, and restoration strategies.

**Course Approach**

The textbook will provide the framework and structure to the study of restoration ecology and its application – ecological restoration. The additional readings, associated with each chapter, provide alternative approaches, updated information, and insights into other ecosystems. The PowerPoint presentations and additional readings are available on the course website under the Schedule & Assignments and Week at a Glance pages. Access to some of the assigned reading is made possible by the Texas A&M University Libraries EZ Proxy feature. You will need to logon with your NetID and Password to view these articles from the links on the course website. The PowerPoint presentations and additional readings in PDF format are also available on eLearning under Reading Assignments.

Interactive discussions about the readings are designed to provide a forum for interactions among students.

*All assignments are due each Monday morning (10 am CDT).*
1. Each week, you are expected to post a 1-page (approx. 300 word) analysis of the previous week’s reading assignments (one chapter, plus articles). Your synopsis will be posted within the eLearning “Topic Synopsis” discussion forum. This synopsis will discuss:
   a. The main points addressed in the chapter and readings;
   b. Your view of the most important ecological concepts presented; and
   c. The practical implications. Be concise and focus on major concepts and applications.

2. Each week, two or three individuals will be specifically assigned the task of providing a 500-word synopsis on a scholarly article that relates to the current topic. Procedures for this assignment are:
   a. Review the articles listed below and select three for your scholarly article synopsis. The course moderator, Sasa, will contact you via email prior to the beginning of the semester to request your list of topic choices. Send your choices, listed in order of preference, to sasatap@tamu.edu by 10 am (CDT) June 10, 2013. Topics will be assigned on a first come, first serve basis. If one of your choices is already assigned to another classmate you will be assigned your second or third choice based on topic availability. Topic assignments and due dates will be posted on the course website and eLearning by June 12, 2013.


   X. Opposite paths to success. Chapter 9 from Collapse: How Societies Choose to Fail


b. Concisely describe the important ecological concepts and practical applications of the article. How does it relate to the current chapter and other readings? Your analysis will provide a brief synopsis, discussion of main points, comparison with book chapter and other articles, discussion of most important ecological finding and most important practical finding. Not every article will address all of those topics.

c. Post your synopsis to the “Individual Synopsis Submission” discussion forum in eLearning.

3. Each week, you are expected to participate in the “Topic Discussion” in eLearning. See the Course Schedule for details. Since this class has students with many different backgrounds, I expect some comments will address relatively basic ideas while others may address specific items. Both are desirable and encouraged.

Grading
No tests! Your grades will be determined from weekly assignments (80%) and your participation in discussions of other articles (20%). Individuals that routinely fail to contribute to the group projects will receive an appropriate grade.

American Disability Act (ADA) Policy Statement
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 Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

Academic Integrity Statement
Schedule and Assignments

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<th>WEEK</th>
<th>TOPIC AND ASSIGNMENTS</th>
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| 1    | **Introduction to Restoration Ecology**  
      | Read Wk 1 PowerPoint  
      | Read Chapter 1 in Textbook (Wildland Degradation and Repair)  
      | Add your synopsis to discussion board by **June 10** |
| 2    | June 10-12:  
      | Read discussion board synopses from previous week and add your comments  
      | **Ecosystem Services**  
      | June 13-16:  
      | Read Wk 2 PowerPoint  
      | September 2005: 100-107.”  
      | Add your synopses to discussion board by **June 17** |
| 3    | June 17-19:  
      | Read discussion board synopses from previous week and add your comments  
      | **Assessing Damage to Primary Processes**  
      | June 20-23:  
      | Read Wk 3 PowerPoint  
      | Read Chapter 2 in Textbook  
      | Add your synopses to discussion board by **June 24** |
| 4    | June 24-26:  
      | Read discussion board synopses from previous week and add your comments  
      | **Repairing Damaged Primary Processes**  
      | June 27-30:  
      | Read Wk 4 PowerPoint  
      | Read Chapter 3 in Textbook  
      | Add your synopses to discussion board by **July 1** |
| 5    | July 1-3:  
      | Read discussion board synopses from previous week and add your comments  
      | **Directing Vegetation Change**  
      | July 4-7:  
      | Read Wk 5 PowerPoint  
      | Read Chapter 4 in Textbook  
<pre><code>  | Add your synopsis to discussion board by **July 8** |
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<tr>
<th>Week</th>
<th>Dates</th>
<th>Assignments</th>
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<tr>
<td>6</td>
<td>July 8-14</td>
<td>July 8-10: Read discussion board synopses from previous week and add your comments</td>
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<td><strong>Selecting Plant Materials</strong></td>
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<td>July 11-14: Read Wk 6 PowerPoint Read Chapter 5 in Textbook Add your synopsis to discussion board by <strong>July 15</strong></td>
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<td>July 15-17: Read discussion board synopses from previous week and add your comments</td>
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<td>July 15-21</td>
<td><strong>Site Preparation and Seedbed Preparation</strong></td>
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<td>July 18-21: Review Wk 6 PowerPoint Read Chapter 6 in Textbook Add your synopsis to discussion board by <strong>July 22</strong></td>
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<td>July 22-24: Read discussion board synopses from previous week and add your comments</td>
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<td>July 22-28</td>
<td><strong>Planting</strong></td>
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<td>July 25-28: Read Wk 8 PowerPoint Read Chapter 7 in Textbook Add your synopsis to discussion board by <strong>July 29</strong></td>
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<td>July 29-31: Read discussion board synopses from previous week and add your comments</td>
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<td>July 29-Aug 4</td>
<td><strong>Planning Restoration Programs</strong></td>
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<td>August 1-4: Review SER Primer PowerPoint Read Chapter 8 in Textbook Read SER Primer PDF Add your synopses to discussion board by <strong>August 5</strong></td>
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<td>10</td>
<td>August 5-11</td>
<td>August 5-9: Read discussion board synopses from previous week and add your comments</td>
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<td>Relax</td>
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