Landscape Ecology
Principles of Landscape Ecology Outline and Policy Statements
Env. 420, Fall 2020
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Lecture 11-11:50 MW, Lab W 1-3:50
Office Forestry 203G, Office Hours MW 9-11, M 4-5 TTH 9:25-10:40, TH 4-5
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Course Objective: The course objective is to integrate the concepts of structure, function and change, tenets of landscape ecology, into both short-term and long-term land management planning. The Emerging General Principles of Landscape Ecology will be examined as they pertain to changing landscapes brought about through both natural and anthropogenic disturbances. The divisions of landscapes (patch, matrix, corridor) will be examined as we build constructs of the discipline of landscape ecology. The philosophy of landscape management in the context of landscape ecology will be developed.


Honors credit by Honors contract

Program Learning Outcomes (This is not a General Education Course): Env. 420 is one of the environmental science core courses required of all environmental science majors and thus competency is required. A minimum grade of a “C” must be attained or the course will have to be repeated. The course is designed to address the following

Program Learning Outcomes, as given in the BS Program Matrix:

1. Demonstrate understanding and competency of ecology and biology;
2. Demonstrate understanding and competency in the measurement of environmental science resources;
3. Demonstrate understanding and competency in managing environmental science resources;
4. Demonstrate understanding and competency of environmental science resource policy, economics, and administration.
5. Demonstrate understanding and competency in oral and written communication skills.

The above PLOs are also recognized as vital components important to the National Association of Environmental Professionals.
### B. S. Forestry Program Learning Objectives, Proficiency Levels

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<tr>
<th>Course</th>
<th>PLO 1 Ecology &amp; Biology</th>
<th>PLO2 Environmental Resource Measurement</th>
<th>PLO3 Environmental Resource Management</th>
<th>PLO4 Environmental Resource Policy, Economics, Administration</th>
<th>PLO5 Oral &amp; Written Communication Skills</th>
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<tbody>
<tr>
<td>ENV 420</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>I</td>
<td>A</td>
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1. **A – Advanced** – ENV 420 supports Program Learning Outcome by providing students with transitional, high level topic-specific information, activities, and opportunities that enable the students to apply their critical thinking and tactical skills to resolved increasingly challenging strategic situations.

2. **I – Intermediate** – course supports Program Learning Outcome by providing students with topic-specific information, concepts, applications, and lab activities that increase the students’ skills in making tactical implementation decisions relative to the expected outcomes.

### Course Outline.

Text material will be supplemented with outside readings and assignments.

**Introduction and Integration of Landscape Ecology and Environmental Science**

Text: Chapter 1, Organization of the Knowledge Base for Ecology (5%)

**Definition of Landscape Ecology, Handout, Forman and Godron**

Structure, Function, Change, Chapter 7 Landscape Structure: Environment, Geometry and Perception (5%)

**Structure, Function and Change, Landscape Elements**

Laboratory: Stephen F. Austin State University Campus as a Landscape Assignment: 50 points; Chapter 8 Landscape Function (5%)

**Landscape Ecology Emerging General Principles**

Clean Texas and Energy Reduction to Promote a Sustainable Environment (5%)

Use of Bald Cypress, Stream Stabilization and Corridor Management to Promote Stream Management on SFASU Campus (5%)

Philosophical Constructs of Landscape Ecology to Analyze Values of Anthropomorphism and Biocentrism in Wilderness Areas (5%)

Corridor Management to Promote Fitness and Management of the Matrix of Stephen F. Austin State University (5%)

Teaching Landscape Ecology in an Environmental Science Curriculum (5%)

**Landscape Ecology Emerging General Principles**

Laboratory: Development of Landscape Management Groups; planning of landscape activities related to landscape elements, title, justification, objectives

Assignment: 50 points (5%)
Patch, Matrix, Corridor Introduction of Concepts, Text: Chapter 7 Laboratory: Examination of Patch, Matrix, Corridor as they apply to Emerging Landscape Principles Assignment: 50 points (5%)

Corridors (Chapter 7) Laboratory: Measurement of Corridors on a Landscape, SFASU campus; assignment, 50 points (5%)

Natural Processed in Landscape Development (Chapter 8) Laboratory: Examination of Landscape Processes, Nacogdoches County, Soil Survey, Assignment, 50 points (5%)

The Human Role in Landscape Development (Chapter 12, 13, 14 from Forman 1995) Laboratory: Examine of Landscape Ecology at Stephen F. Austin State University: Patch Ecology: Buildings, Vegetation, Pavement and other structures (5%)

The Human Role in Landscape Development (Chapter 12, 13, 14 from Forman 1995) (5%)

The Human Role in Landscape Development (Chapter 12, 13, 14 from Forman 1995) Laboratory: Examine of Landscape with Patch Ecology: Buildings, Vegetation, Pavement and other structures (5%)

Landscape Functioning (Chapter 8) Laboratory: Examine of Landscape Ecology at Stephen F. Austin State University: Patch Ecology: Buildings, Vegetation, Pavement and other structures (5%)

Landscape Change (Chapter 9; Chapter 12, 13, 14, Forman 1995) (5%)

Landscape Change (Chapter 9) Landscape Change, SFASU, Laboratory Assignment (5%)

Landscape Management (Chapter 10; Chapter 14) Landscape Management, SFASU, Laboratory Assignment (5%)

Landscape Philosophy, Aldo Leopold Revisited (5%)

Landscape Management Final Projects, 250 points; presentation of final projects using power point presentation during the last week of class

Finals Week, Final Exam, Assignments, 200 points

Grading: Laboratory Assignments, 5 at 50 points each, 250 points (25%), Final Laboratory Project, 250 points (25%), PowerPoint 150 points (15%) Mid-term, Assignments 200 (20%), Final 150 (15%); assignments must be typed and turned in at the
scheduled time. Make-up must be scheduled during office hours. Grading will follow university policy. A = 90, B = 80, C = 70, D = 60, < 60 = F. More than three absences may result in loss of grade. Those individuals requiring special consideration, please notify me.

**Attendance Policy:**

I expect you to attend all lectures and lab meetings. Do not be late getting to class; two late arrivals equates to one unexcused absence. Starting with the third unexcused absence from lecture or lab, you will lose 1 letter grade per absence off of your final semester grade. If you miss a scheduled lecture quiz or assignment, you must have a valid medical excuse from the Health Clinic or your family doctor. If you know beforehand that you will be absent from the scheduled exam then let me know ASAP. March 24 is the last day to drop from enrollment without a grade of WP or WF.

**Academic Integrity (SFA Policy A-9.1)**

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp). In regard to cheating and plagiarism, a first offense will result in a grade of zero (0) on that assignment. A second offense will result in a failing grade for the semester. In addition, the profession of forestry cannot embrace those that do not live by and adhere to the Society of American Foresters' Code of Ethics. Please protect your own work. Do not let others copy or have access to your files or to hard copies of your reports.

**Withheld Grades Semester Grades Policy (A-54)**

A grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances and is done at the discretion of the instructor of record with the approval of the academic chair/director. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in
future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Students with Disabilities**
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

**Acceptable Classroom Behavior**
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program. Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave the class and may be subject to judicial, academic or other penalties. The prohibition applies to all instructional forums, including electronic/online forums, classroom meetings, labs, discussion groups, field trips, etc. The instructor will have full discretion over what behavior is appropriate/ inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to iCare Early Alert Program ([sfasu.edu/judicial/earlyalert.asp](http://sfasu.edu/judicial/earlyalert.asp)). This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed. **Responsible use of technology:** It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and related devices outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop for matters unrelated to the course may be grounds for dismissal from class or other penalties.

**Miscellaneous Important Information:**
Please come to each lab prepared to go to the field unless otherwise instructed. This means that you must have your hardhat, field clothes, and field boots. If you show up for lab wearing any type of athletic (tennis, basketball, running, whatever!) shoes or without your hardhat, then you will not be allowed to participate in the lab (can't get on the van!). You will be given a lot of handouts. Buy a 3-ring binder in which you should keep all handouts. Bring this binder with the handouts to each lecture and lab. No cell phone calls or text messaging in class.