Syllabus
WFSC 406: Wildlife Habitat Management
Fall 2015

Instructors
Jared Beaver, 704-640-1447, jbeaver@ag.tamu.edu (Primary Contact)
Roel R. Lopez, 210-277-0292, ext. 202, roel@tamu.edu
Students may request an individual meeting with instructor by sending an email and requesting an appointment to IRNRDistanceED@ag.tamu.edu.

Course Description
Students will be introduced to general concepts of wildlife habitat management and conservation biology. Specifically, students will be acquainted with major land use practices on public and private lands, how these practices influence wildlife production, and alterations or manipulations of habitat used to achieve specific wildlife management goals. Ultimately, this information will be used to formulate plans to manage wildlife populations and their habitat. Upon course completion students shall identify:

1. General concepts of wildlife-habitat relationships as they pertain to wildlife management and conservation biology.
2. Wildlife-habitat measurements useful in the manipulation and management of wildlife populations and their habitats.
3. Wildlife habitat modification techniques useful in the manipulation of succession on the landscape.

Prerequisites
A basic understanding of general ecology and experience with computers are useful. Students should have taken WFSC 201 and WFSC 403, WFSC 401 or 402, senior classification, and be a wildlife and fisheries major prior to taking this course or approval of instructor.

Course material
All modules, videos, readings, and supplemental material can be found on the course website – http://wildlifehabitat.tamu.edu

Attendance
Being a distance education course, there is no class room attendance. It is the student’s responsibility to keep up with the weekly modules, readings, and any class material discussion (via e-mail). A weekly checklist is available for each topic (see below). Given the self-paced nature of the course, it is possible to get ahead of schedule if needed. Late work is discouraged and will not be accepted unless provided a university approved excuse. If you have trouble keeping up with course materials, please let us know as soon as possible and not at the end (little sympathy will be given to those who wait to discuss any issues of concern).
Grading

Examinations
- Administered exams will consist of a variety of question styles (true/false, matching, short answer/essay, etc.) and cover assigned readings, lectures, and videos. Exams will be comprehensive and administered via e-mail.

Course Project
- Management Plan — undergraduate students will be responsible for completing a 1-D-1 Open Space Agricultural Valuation Wildlife Management Plan for a property of their choice using Texas Parks and Wildlife Form PWD 885-W7000. Management plans can serve to guide landowners seeking an agricultural wildlife valuation for their properties (Texas House Bill 1358, Proposition 11). For this course project, undergraduate students are required to have at least 1 target species AND at least 2 management practices included in their management plan. Forms, grade sheets, and guidelines are posted on the Planning tab at: http://wildlifehabitat.tamu.edu/.

Extra Credit (optional)
- Plant Collection — the student will be responsible for the collection of at least 25 native plant species (i.e., trees, shrubs, vines, grasses, or forbs) important to wildlife. Digital images will be used in place of actual specimens. Images must be taken by you personally and not taken from the internet or other sources. Digital images might include a collage of photos showing the species overall as well as close-up photos of leaves, flowers, stems, fruit, etc. Information on each plant species includes the common and scientific name, brief description, preferred habitat qualities, and its importance to wildlife (see course website for examples and grading rubric). If you do not have access to a digital camera or smartphone camera, contact me ASAP to make alternative arrangements. (Maximum of 60 pts.)

Academic Dishonesty
We believe in the Aggie Code of Honor:

Aggies do not lie, cheat, or steal, nor do they tolerate those who do.

Academic dishonesty includes copying, sharing, or obtaining information from an unauthorized source, attempting to take credit for the intellectual work of another person, falsifying information, and giving or receiving information about a test, quiz, or assignment to students in another course section. This includes the fabrication of data. Any student involved in academic dishonesty will receive no credit for work done and/or may be penalized in accordance with published University Rules. Plagiarism software is used in class to ensure academic integrity. For additional information, please visit: http://aggiehonor.tamu.edu.

Americans with Disabilities 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.

Table 1. Grade Distribution

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<thead>
<tr>
<th>Course Activity</th>
<th>Points</th>
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<tbody>
<tr>
<td>Examination</td>
<td></td>
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<tr>
<td>- Relationships</td>
<td>300</td>
</tr>
<tr>
<td>- Measurements</td>
<td>300</td>
</tr>
<tr>
<td>- Modification Techniques</td>
<td>300</td>
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<tr>
<td>Course Project</td>
<td></td>
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<tr>
<td>- Management Plan</td>
<td>600</td>
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<tr>
<td>Total Points</td>
<td>1,500</td>
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<tr>
<td>Date</td>
<td>Topic</td>
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| Aug 31-Sep 6 – Course Overview | Familiarize yourself with the website  
Sep 4 – Last day for adding/dropping courses for the Fall semester |
| Sep 7-13 – Habitat Concepts I | Watch Habitat Concepts modules (Wildlife Management, Habitat, Succession, and Natural Selection)  
Watch TPWD Wildlife Management Areas and Plant Succession videos  
Read *Born in the Hands of Hunters, Future Challenges to the Model, A Conservation Timeline, The Habitat Concept and a Plea for Standard Terminology, and Early Successional Habitat* |
| Sep 14-20 – Habitat Concepts II | Watch Habitat Concepts modules (Diversity, Landscape Ecology, Island Biogeography, and Fragmentation)  
Read *A Philosophy of Habitat Management for Northern Bobwhites, Biodiversity of Rangelands, and Land Fragmentation*  
Watch “The Lorax” video |
| Sep 21-27 – Wildlife Habitat Planning | Watch Wildlife Habitat Planning module  
Read *Example Management Plan, Red-cockaded Woodpecker Recovery Plan, Endangered Species Management Plan for Fort Hood, Milam County WMP, and Grimes County WMP Small Acreage* |
| Sep 28-Oct 4 – GIS/GPS technology | Watch GIS-GPS Overview module  
Read *GIS Best Practices in Wildlife Management, Flooding-induced Landscape Changes, and Population Variation in Dune-dwelling Lizards* |
| Oct 5-11 – Land measurement (Plane) | Watch Land Measurement modules 1-2  
Watch Basic Compass Use video  
Read *Land Measurement 1 and 2 and Land Measurement and Surveys* |
| Oct 12-18 – Land measurement (Volume) | Watch Land Measurement modules 3-4  
Read *Ponds—Planning, Design, and Construction* |
Read *Robel Rangepole (Robel 1970) and Use of Rangepole (Smith 2008)*  
Watch Softball Habitat Evaluation Technique video |
| Exam 1 – Relationships (Due by 11:59 p.m. on Sunday Oct. 4th) |
| Exam 2 – Measurements (Due by 11:59 p.m. on Sunday Oct. 25th) |
# Habitat Modification Techniques

## Oct 26-Nov 1 – Mechanical Treatments

To do checklist:
- Watch Mechanical Treatment module (Brush Management Techniques)
- Read *Brush Management Methods, Sculpting Brush Mechanically, and Light Disking to Improve Wildlife Habitat*
- Watch Half-cutting Brush Technique video

## Nov 2-8 – Wetland Management

To do checklist:
- Watch Pond Management modules (Managing Ponds, Bass Management, Fish Population Assessment, Management Tools)
- Read *Techniques for Wetland Construction and Management and Restoring Americas Wetlands: A Private Lands Conservation Story*

## Nov 9-15 – Grazing Management and Harvest Management

To do checklist:
- Watch Grazing and Harvest Management modules (Harvest Management, Grazing Management: Basics and Considerations)
- Read *Grazing Systems, Using Livestock to Manage Wildlife Habitat, Is Good Range Management for Livestock Really Good Management for Wildlife, and The Hunter and Conservation*

## Nov 16-22 – Prescribed Fire

To do checklist:
- **Nov 20 – Last day for all students to drop courses with no penalty (Q-drop)**
- Watch Prescribed Fire modules (Prescribe Fire and Benefits of Fire)
- Watch TPWD Prescribed Fire and The Nature Conservancy Prescribed Fire videos
- Read *Prescribed Burning in Texas and Planning a Prescribed Burn*
- **Course Project (Due by 11:59 p.m. on Sunday Nov. 22nd; submit electronically via email)**

## Nov 23-29 – Thanksgiving Holiday

To do checklist:
- Have a happy and safe Thanksgiving
- **Deadline to submit Extra Credit (11:59 p.m. on Sunday Nov. 29th; submit electronically via email)**

## Nov 30-Dec 6 – Supplemental Water and Herbicide

To do checklist:
- Watch Supplemental Water and Herbicide modules (Supplemental Water and Herbicide Use)
- Watch Rainwater Harvesting videos (Overview and Freeman Ranch Example)
- Read *Harvesting Rainwater for Wildlife, Benefits and Impacts of Wildlife Water Developments, and Managing Yaupon with Fire and Herbicides in the Texas Post Oak Savannah*
- **Exam 3 (Final) – Techniques (Due by 11:59 p.m. on Sunday Dec. 6th)**

## Dec 7-10 – Redefined Days and Reading Days

To do checklist:
- Prepare for any finals you have

## Dec 11, 14-16 – Finals

To do checklist:
- Goodluck and have a great Christmas Break