



Castleton University

Field Techniques and Current Topics in Wildlife Biology – Summer 2019

3 or 6 Credits

BIO 4260 CFS1 (3 credits) and BIO 4710 CFS1 (6 credits)

Graduate Credits Available Upon Request [EDU 5515 C01A (3) & C01B (6)]

Castleton University

May 19- June 1, 2019

Course Description

This course is targeted for undergraduate and graduate students majoring in wildlife biology, biology, zoology, forestry, or other natural resource programs, especially those from programs lacking intense field-based courses. The course is intended to provide students with practical, hands-on training in the tools and techniques of field biology and allow them to apply those skills in a variety of exercises. Students will summarize data from small group projects and present results to the large group and instructors. Practicing biologists from across the region will be engaged as guest instructors for certain workshops and will be invited to lead discussion sessions on current wildlife management issues, career development, and lead field trips to demonstrate wildlife and habitat management practices on the ground.

Course Goals

1. To provide students with practical, field-based experience in basic sampling methods and theory employed in wildlife biology.
2. To provide students with hands-on experience using a variety of field equipment, ranging from traps and nets to global positioning system (GPS) units.
3. To expose students to current issues in wildlife conservation and encourage critical thinking and decision-making skills through field trips and interactions with practicing wildlife professionals.
4. To provide students an opportunity to network with professionals in the field in an informal environment.

Readings and Materials

- Selected readings will be provided as handouts by instructors and workshop leaders.
- Equipment for field exercises will be provided.

- Students will be expected to complete the Internet-based hunter education program provided by the Vermont Department of Fish and Wildlife prior to the start of the course.

Course Projects

1. Complete the hunter education course requirements and, optionally, obtain a Vermont hunter education certificate; this will allow participation in subsequent projects using dart guns. (5%)
2. Demonstrate proficiency using both map and compass and GPS devices in navigating to points, determining habitat boundaries, and locating survey transects. (20%)
3. Participate in small group exercises and demonstrate proficiency in capture and non-capture sampling of small mammals, birds, reptiles and amphibians, and fish under the guidance of expert instructors. (20%)
4. Demonstrate the ability to identify local plant species, especially woody plants, and demonstrate knowledge of their community associations and common management practices. (20%)
5. Demonstrate proficiency with radiotelemetry equipment, including homing and triangulation techniques. (5%)
6. Demonstrate proficiency with capture dart projection systems. (5%)
7. In small groups, synthesize data on a taxa or habitat type, collected by your own and other groups and present a summary to the class and instructors. (10%)

Graduate Credit Option

Select 1 of the instruction modules offered during this course, summarize, and critique the instruction given providing examples of what parts of the module were more and less effective, and develop recommendations for future delivery of these modules. These recommendations may include an alternative syllabus, applicable examples, case studies, and readings, desired learning outcomes, suggested field exercises, and evaluation tools for the students. Graduate students will also be expected to lead an evening discussion that focuses on their graduate program(s). Graduate students are also required to deliver a presentation to the group detailing some aspect of their graduate research (e.g., their research objectives and research methods) or education program. Grading: Instructors will assign final 10% of grade for graduate students based on the critique and presentation.

Course Schedule

There will be thirteen (13) consecutive class days, starting on Sunday afternoon and ending the morning of the 2nd Saturday following.. Most class days will consist of morning and afternoon workshops or field exercises on different topics, though there may be 1 or 2 all-day trips to demonstrate wildlife habitat or population management practices as applied in the field. Exact scheduling of workshops will be weather and instructor dependent. There will also be several evening sessions with invited practicing biologists leading discussion on current wildlife conservation topics.

Prerequisite - 8 hours of Bio-credits

Course Overview¹

Date	AM	PM
Sunday		Welcome, registration
Monday	Compass and map skills	Orienteering, plant identification
Tuesday	Bird surveys, GPS skills	Fish sampling
Wednesday	Bird surveys, mammal trapping	Community ecology hike
Thursday	Introduction to radiotelemetry	Hunter Education (1)
Friday	Radiotelemetry practicum	Reptile and amphibian sampling
Saturday	Trapping and furbearer management	Tree identification
Sunday	Free time	Group project work
Monday	Group project work ²	Chemical immobilization
Tuesday	Group project work	Hunter education (2)
Wednesday	Group project work	Group project work, tree ID exam
Thursday	Environmental education (Project Wild)	Group project preparation
Friday	Group project preparation	Group presentations
Saturday	Wrap-up, evaluations, depart	

¹ Exact scheduling of certain lessons and trips will be dependent on weather and availability of instructors.

² Group projects will consist of applying the techniques learned in the demonstrations of bird, mammal, reptile and amphibian, and habitat sampling to design and layout sampling schemes, collect and summarize data from their own group and others, and present those results.

Grading Policy:

Grades are indicated by letters with a designated “quality point” value assigned to each as follows:

A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3

Additional grading information can be found in the 2018/2019 Castleton University Graduate Catalog, under Academic Policies, accessible online at:

<http://catalog.castleton.edu/index.php>

Academic Honesty Policy:

Castleton University is a learning institution committed to the highest standards of scholarly conduct. The students, faculty, and administration make up a scholarly community whose integrity and success necessarily stem from a mutually agreed upon code of academic standards and principles that promote trust and honesty and prohibit the attempt to gain unfair academic advantage. Membership in the Castleton community means sharing responsibility for upholding and safeguarding these academic standards and principles.

Any violation of academic honesty will be considered cheating and will be dealt with accordingly by the appropriate authorities.

For more information click the link below to access the 2018/2019 Castleton University Graduate Catalog Academic Policy section:

http://catalog.castleton.edu/content.php?catoid=16&navoid=1204#Academic_Honesty

Use and Ownership of Copyrighted Materials:

For information and guidance, faculty and students are referred to the Vermont State College Manual of Policy and Procedures as it relates to the use and ownership of copyrighted materials. Guidelines are set out in Policy 416, accessible online at the following address:

<http://www.castleton.edu/library/information-literacy-graduation-standard/information-literacy-tutorial/information-ethics-citing-sources-and-fair-use/>

Additional information on this subject is contained in the publication “Questions and Answers on Copyright for the Campus Community.” This document can be accessed online on the National Association of College Stores web site at the following address:

<http://www.nacs.org/toolsresources/cmip/copyright/questions.aspx>.

Accommodations:

Castleton is committed to providing reasonable accommodations to qualified students with disabilities so that no such student shall, by reason of a disability, be excluded from participating in or be denied the benefits of the services, programs or activities of Castleton University. For more information, please contact the Coordinator of Disability Services, at (802) 468-1428.

Course Drop Policy:

Castleton University offers courses to educators with the expectation participants will complete the course. However, the University realizes circumstances arise in one’s personal life that may cause disruptions. The policy for dropping a course is that a participant will notify the instructor in writing of the intent to withdraw from the course.

The notice should include the reason for withdrawing and be made as follows:

1 credit course (15 hours) – before 3 hours of the course have taken place

- 2 credit course (30 hours) – before 6 hours of the course have taken place
- 3 credit course (45 hours) – before 9 hours of the course have taken place
- 4 credit course (60 hours) – before 12 hours of the course have taken place

After that, changes in class status will be considered for health, bereavement, and personal or emergency situations only. Those who withdraw without adhering to this policy may be liable for associated course costs.

For more Academic Policy information check the link below to access the 2018/2019 Castleton University Graduate Catalog:

<http://catalog.castleton.edu/index.php>

Transcript Request:

<http://www.castleton.edu/campus-life/student-resources/student-services-center/transcript-request/>.