

FiW 4984 – Wildlife Field Techniques – Spring 2008
Thursday 2-5 pm 212 Cheatham
Plus 10-day intensive at Mountain Lake Biological Station

Instructor:

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Course Format

This course will meet during the 5 weeks of classes. This will be followed by a 10-day intensive at Mountain Lake Biological Station which is about a 30-40 minute drive from Blacksburg.

Required Text

Braun, C.E. (ed.). 2005. Techniques for Wildlife Investigations and Management. Sixth Edition. The Wildlife Society Inc., Bethesda, MD. 974pp.

Required Equipment

A field notebook. Preferably rite-in-the rain type of notebook. <http://www.riteintherain.com/>

A hand held, pocket field compass - Silva Ranger 360° or Suunto Navigator 360°. These can be purchased through Forestry Suppliers www.forestry-suppliers.com
Rite-in-the rain notebooks can also be purchased through forestry suppliers.
You will need your compass by the 4th lab.

A respirator and completion of respirator training. The department of health and safety will give a 30 presentation on respirators and other health issues related to handling wild animals during the first lab. The Health and Safety Building is right next to Parking Services on Tech Center Drive. Cost of your personal respirator run \$13-30 depending on the type and fit you need.

Course Objectives:

This course is designed to acquaint students with the great variety of techniques and skills commonly used in wildlife research and/or management and to help students gain understanding of and an appreciation for the appropriate use of these tools. Upon completion of the course successful students should be able to:

- a) Understand and convey the philosophy and intent of wildlife research.
- b) Identify, describe and employ appropriate techniques to capture and mark a variety of wildlife
- c) Determine the age and sex of common avian and mammal game species and explain the biological phenomenon which lead to these diagnostic characteristics
- d) Assess the habitat requirements of wildlife species.
- e) Apply and understand habitat evaluation and vegetation assessment methods
- f) Describe methodologies to assess physiological condition / health in wildlife.
- g) Recommend appropriate actions to improve or enhance wildlife habitat.

Students will gain hands-on field experience including: orienteering by compass and GPS unit, capture and handling of live birds, mammals, and herps, sexing and aging live animals,

instruction in radio telemetry, habitat measurements for wildlife, experimental design and data collection, analysis of data collected and presentation to the class of group field project

Course Schedule: Lab meets for the first 5 Thursdays: last one is practical exam!

Dates	Topic	Assigned Readings
January 17	Introductions and course mechanics Scientific Literature Research Planning and Choice of Techniques Philosophy public debate, ACUC Respirator Training Presentation (Sarah Owen from EHS)	<i>Braun: Chapter 3:</i> pps. 43-54; <i>Chapter 7:</i> pps 185-195
January 24	Capture Techniques: Why capture? Techniques for birds, mammals, other wildlife	<i>Braun: Chapters 10 and 13 some of 12</i> <u>Bring book to Lab</u>
January 31	Sexing and Aging of Wildlife	<i>Braun: Chapter 12</i> <u>Bring book to Lab</u>
February 7	Orienteering – complete orienteering Assignment and turn in map	None – Complete previous readings
February 14	Lab Practical Exam	identify all specimens and answer questions from readings too

Accommodations: If you need adaptations or accommodations because of a disability (learning disability, attention deficit disorder, psychological, physical, etc.), if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible.

Field Intensive Portion of the Course

Meet at Cheatham Hall parking lot at **9 am on Wednesday, August 13th** for carpool to Mountain Lake Biological Station. (**We need volunteer drivers!**). The course will finish by noon on August 23rd.

I will distribute the course schedule as well as a more detailed equipment list for the field portion of the course by the practical exam if not sooner.

Requirements

- All students must stay on-site at Mountain Lake Biological Station.
- Students must bring their own food for 10 days: cooking groups will be organized.
- All students must bring their own sleeping bag. Make sure it is a good one as it may be cold at night.
- Students must bring appropriate field clothes (e.g. hiking boots, warm clothes, warm hat, sunscreen, etc.)
- Students must bring an alarm clock

- **All students must pay the lab fee of ~\$202 which should be billed to you by the University.**
- All students must bring their compasses
- All students must bring their headlamps
- All students must bring their textbooks
- Students must bring a zip disk and CD (or jump drive) to save work and complete computer assignments. Some computers have CD drives and some have zip drives.

Optional Gear

- Camera
- Binoculars – if you are interested in birds or doing a bird project, bring binoculars
- Personal GPS unit
- Bug repellent

Evaluation of student performance will be based on:
(This is subject to change as determined by the instructor)

• One practical exam (one per student)	100 points
• Orienteering map (one per student)	40 points
• Orienteering field trial (one per 2 students)	20 points
• Telemetry triangulation assignment (one per student)	40 points
• Written project (one per group)	100 points
• Oral presentation of project (one per group)	45 points
• Peer evaluation of group project	15 points
• Instructors and TAs evaluation of field ability	40 points
• Final exam (one per student)	100 points
Total points	500 points

Start thinking about a field project that you would like to work on. Students will be divided into groups for data collection and analysis and will present results of field work to entire class.

Ideas for potential projects for groups:

- Small mammal density, diversity, and habitat associations
- Small mammal population demography (use of past data required)
- Bird diversity and habitat associations
- Bird population demography or status over time (use of past data required)
- Herp densities, diversity, and habitat associations
- Herp population status over time (use of past data required)
- Comparison of non-invasive techniques for determining density of mammals: line transects and camera-trapping, (possibly hair trapping). (Use of past data required)
- Behavior of birds and/or mammals – ethograms (activity budgets), etc.
- Behavioral responses of wildlife to threats (student as the predator)
- Radio telemetry home range estimation – future possibility – not currently available