ENTOMOLOGY IN FIELD AND LAB  
BIOL F040, Noncredit  
UAF Campus, Summer 2016

COURSE INFORMATION
Title: Entomology in Field and Lab  
Number: BIOL F040  
Credits: None  
Prerequisites: None  
Location: University of Alaska Fairbanks Campus and Vicinity, Murie 302  
Meeting Times: 6-8 p.m. Fri, & 1-6:15 p.m. Sat. & Sun.  
Meeting Dates: June 24-26, 2016  
Lecture / Lab: 3h lecture, 9h field/lab – NOTE: you will need your own transportation

INSTRUCTOR: Dr. Derek S. Sikes, Curator of Insects, Associate Professor of Entomology  
University of Alaska Museum, 907 Yukon Dr., UAF  
Tel. (907) 474-6278 email: dssikes@alaska.edu  
Office hours available by appointment

COURSE READINGS / MATERIALS: Recommended (most should be available in Gulliver’s Books, or the UA Museum bookstore):


ISBN 978-0-939431-38-0


COURSE DESCRIPTION: An introduction to building an insect collection. Emphasized will be collection and processing methods needed to build an insect collection. The skills necessary to identify most groups to Order will be taught. Students will create a collection which will broken into three groups: specimens the student can take home, specimens for the University of Alaska Museum Insect Collection, and specimens for the Teaching Collection.
COURSE GOALS & STUDENT LEARNING OUTCOMES:
1. To learn basic collection and specimen preparation techniques
   - net types and uses
   - aspirators and vials / killing jars
   - trapping methods, e.g. pitfall traps, Malaise traps, Berlese / Winkler funnels
   - pin, point, paper, pen, glass vial types, sources, preservation dry vs wet
2. To understand the roles insects play in Alaskan ecosystems
   - trophic levels
   - ecological relationships (predators, herbivores, parasites, pollinators, decomposers, anthrophilic, etc.)
   - habitat preferences (terrestrial, aquatic, soil, etc.)
3. To contribute to Alaskan Entomological research endeavors
   - provide professionally mounted & georeferenced specimens to the UA Museum Insect Collection

INSTRUCTIONAL METHODS: An introductory lecture covering insect diversity will be combined with hands-on, instructor-lead, field work to learn methods of sampling insects in the wild. Field captured insects will be brought back to the lab and processed (mounted and identified). The instructor will be constantly available to answer questions during the course.

COURSE CALENDAR:
Friday  Introductions and enrollment (6 – 8 PM)
   Lecture (2hours)
   Insect Evolutionary Diversity
      introduction to major insect groups
      Non insect arthropods – Arachnida, Myriapoda
      Apterygota
      Pterygota
         Paleaoptera
         Neoptera
            Polyneoptera
            Paraneoptera
            Endopterygota
   Insect Ecological Diversity, Aquatic Insects, Herbivores, Predators, Fungivores, Parasites, Parasitoids, Detritivores

Saturday  FIELD TRIP: 1 – 3PM, UAF campus overlook
   field gear – tools of the trade lecture
   leaf litter sifting & Winkler / Berlese extraction
      Malaise trap, Lindgren funnel, FIT, pitfall trap, pollinator cups
   UAF LAB: 3:15-6:15, mounting and identification of specimens caught
      field labeling vs. final labeling
      collection care and maintenance

Sunday  FIELD TRIP 1 – 3PM,
   “Peat Ponds” Goldstream x Murphy Dome Rd
   UAF LAB: 3:15-6:15, mounting and identification of specimens caught