Term Information

Effective Term	Summer 2013

General Information

Course Bulletin Listing/Subject Area	Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org	Evolution, Ecology & Org Bio - D0390
College/Academic Group	Arts and Sciences
Level/Career	Graduate, Undergraduate
Course Number/Catalog	5890
Course Title	General Acarology
Transcript Abbreviation	Gen Acar
Course Description	An introduction to the morphology, development, and general biology of mites. Laboratory consists of a taxonomic review of the families of Acari.
Semester Credit Hours/Units	Fixed: 2

Offering Information

Length Of Course	12 Week (May + Summer)
Flexibly Scheduled Course	Always
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	Yes
Allow Multiple Enrollments in Term	No
Max Credit Hours/Units Allowed	4
Max Completions Allowed	2
Course Components	Workshop
Grade Roster Component	Workshop
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	Permission of instructor
Exclusions	

Cross-Listings

Cross-Listings	

Subject/CIP Code

Subject/CIP Code	26.0701
Subsidy Level	Doctoral Course
Intended Rank	Senior, Masters, Doctoral, Professional

Quarters to Semesters

Quarters to Semesters	Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses
List the current courses by number and title that are to be subsumed into proposed course	ENT 670

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Learn the basic anatomy of mites
- Identify mites to major group (usually to family)
- Understand the basics of mite development
- Understand the diversity of host associations involving mites
- Basic techniques for mite collection, preparation, curation

Content Topic List

- Recognize the various parts of mite bodies, and thus correctly interpret keys and descriptions
- Identify mites to major groups
- Identify instars and link morphology and ecology to developmental instar
- Coherently discuss mite-host associations in terms of types of associations and organisms involved
- Collect a variety of mite taxa, prepare them for study, and manage associated data

Attachments

- EEOB 5890 General syllabus.docx

(Syllabus. Owner: Lanno,Roman P.)

Comments

- Changed subsidy level from master's to doctoral. *(by Vankeerbergen,Bernadette Chantal on 01/23/2013 10:29 AM)*
- This course is part of the Summer Acarology Program that was part of the Entomology curriculum but has been transferred to EEOB since Dr. Hans Klompen in now in EEOB. Will be offered as a one-week workshop, Lecture – 3.5 h/day/6 days; Lab – 6.5 h/day/6 days.

  I'm forced to select at least one course length, none of which is appropriate for this course. I selected May+summer since that's when it will be offered. *(by Lanno,Roman P. on 01/17/2013 01:51 PM)*
- Please fix "fo" typo in the Course Description. Also, a syllabus will be needed to evaluate the request. The syllabus should outline the offering time (for the flexibly scheduled course) in order to justify the 2 credit hours. Also, why 14, 7, 3.5 and flexibly scheduled? Seems to be too many choices. *(by Hadad,Christopher Martin on 01/10/2013 10:45 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	01/09/2013 03:44 PM	Submitted for Approval
Approved	Lanno,Roman P.	01/09/2013 03:48 PM	Unit Approval
Revision Requested	Hadad,Christopher Martin	01/10/2013 10:45 PM	College Approval
Submitted	Lanno,Roman P.	01/17/2013 01:51 PM	Submitted for Approval
Approved	Lanno,Roman P.	01/17/2013 02:01 PM	Unit Approval
Approved	Hadad,Christopher Martin	01/18/2013 05:19 PM	College Approval
Pending Approval	Nolen,Dawn Jenkins,Mary Ellen Bigler Vankeerbergen,Bernadette Chantal Hogle,Danielle Nicole Hanlin,Deborah Kay	01/18/2013 05:19 PM	ASCCAO Approval

EEOB 5890
GENERAL ACAROLOGY
CREDIT HOURS: 2

NATURE OF PROGRAM AND FUNDING:

General Acarology is part of the Acarology Summer Program, which has been in continued existence since 1951. The program offers highly intensive 1-3 week courses aimed at teaching mite taxonomy and systematics with an emphasis on learning to identify the various groups of mites. General Acarology can be a stand alone introduction to Acarology, or form the basis for the more specialized courses such as Medical Veterinary Acarology (EEOB 7891), Agricultural Acarology (EEOB 7890), or Soil Acarology (EEOB 7892). Participants in the program include professionals, postdocs, and graduate students coming from all over the world (foreign enrollment of up to 50%).

The summer program is designed to be largely funded by course fees paid by non-OSU participants (salary for OSU faculty during the Summer Program is not paid by the program). This covers basic materials and travel fees for the various lecturers. No added OSU funding is requested.

****

INSTRUCTIONAL STAFF:

Hans Klompen klompen.1@osu.edu 614 292 7180
Glen Needham (guest lecturer)
GRA

MEETING TIMES: MTWRF 8:30am - 8:00pm, Sa 8:30am - 5pm

FORMAT: : Three 1-1.5 hr lectures/day (morning, afternoon, evening), morning and afternoon lectures followed by 2-3 hr lab periods. Starting on Monday, continuing for 6 days ending on Saturday (5:00pm).

GOALS AND OBJECTIVES: Students will learn the basic anatomy of mites (including acarine specific terminology), and thus be able to accurately describe body parts and correctly interpret keys and descriptions. They will learn to identify mites to major groups (usually to family). Students will be able to correctly identify instars and link morphology and ecology to developmental instar. They will be able to coherently discuss mite-host associations in terms of types of associations and organisms involved. They will also become familiar with basic techniques for collection, preparation and curation of mites.

GRADING AND EXAMS: Based on participation, results of quizzes during the week, and results for a comprehensive final exam (optional for non-OSU participants). Total 100 points, 4 unscheduled quizzes (10 points each), final exam (40 points), participation 20 points. Quizzes and the final exam will consist of unknown specimens (requiring identification to family and/or instar), with one or more follow-up questions. The exam will be

scheduled about a week after the workshop. Final letter grades will be assigned according to OSU norm (A: 93-100%, A-: 90-92.9 %, B+: 87-89.9 %, etc.).

COURSE MATERIALS: Specific references (for different subsections of the course) will be provided. This includes most taxonomic keys used (printed) and pdf's of supporting material. All this is part of the course pack.

General references (not required, available in classroom):

Alberti, G. & Coons, L. B. (1999) Volume 8C. Acari: Mites. *In:* F. W. Harrison & R. F. Foelix (Eds), *Microscopic anatomy of invertebrates. Vol. 8. Chelicerate Arthropoda*. John Wiley & Sons, Inc., New York, NY, pp. 515-1215.

Krantz, G. W. & Walter, D. E. (2009) A manual of acarology. *In*. Texas Tech University Press, Lubbock, TX.

Walter, D. E. & Proctor, H. C. (1999) *Mites: Ecology, Evolution and Behaviour*. New York: CABI Publishing, p. 322.

ABSENCE POLICY: The tight schedule of these workshops does not leave time for make-up quizzes etc. Cases will be handled on an individual basis.

RESOURCES AND EXPECTATIONS: Students are encouraged to ask questions during lecture and lab, as well as outside of class. Resources, including outlines of PowerPoint lecture presentations will be posted on EEOB Media. Nearly all the specimen and literature resources of the OSU Acarology Collection will be available. Bringing your own material for examination / identification is encouraged, although the expectation is to work primarily with material provided. Microscope equipment provided and specimens used are valuable. Those abusing equipment or specimens will be removed from the course.

DISABILITIES STATEMENT: In accordance with University policy and the Americans with Disability Act, academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that the student take the initiative to bring such needs to the instructor's attention, as the instructor is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evaluations should contact the instructor as to the most appropriate procedures to follow in such situations. Contact Disability Support Services at 292-3307 for additional services.

Students are expected to adhere to the Code of Student Conduct (http://studentaffairs.osu.edu/resource_csc.asp). According to University policy, your instructors are obligated to report any instance of academic misconduct, and the potential consequences include loss of credit for an assignment or exam and a failing grade for the course.

STATEMENT OF DIVERSITY: The instructors of this course are committed to promoting a welcoming climate for all students. For more information on diversity see the OSU website (http://www.osu.edu/diversity/). The instructors welcome suggestions, questions,

and comments. Any exchange of ideas will be conducted with confidentiality, safety, and respect as guiding principles.

OUTLINE OF THE COURSE:

Monday

Introduction

Lecture 1: Introduction course, Acari vs. other Chelicerates

Lab 1: Dissection mesostigmatid mite: terminology, basic morphology

Lecture 2. Basic development, reproduction, life-history, economic importance

Lab 2: Collection from soil; set up Berlese funnels

Lecture 3. Development

Tuesday

Parasitiformes

Lecture 4. Derived Mesostigmata: Parasitina, Dermanyssina

Lab 3. Parasitina, Dermanyssina.

Lecture 5. Basal Mesostigmata: Sejina, Trigynaspida, Uropodina

Lab 4. Basal Mesostigmata.

Lecture 6. Ecology

Wednesday

Lecture 7. Introduction Parasitiformes, Opilioacarida, Holothyrida, Ixodida

Lab 5. Opilioacarida, Holothyrida, Ixodida

Lecture 8. Tick physiology and epidemiology (guest lecture Needham)

Lab 6. Tick collection methods; collecting from animals (vertebrate and insect); wrap-up Parasitiformes

Lecture 9. Host parasite evolution, disease transmission

Thursday

Acariformes, Trombidiformes

Lecture 10: Introduction Acariformes. Endeostigmata, basal Trombidiformes (Eupodina, Anystina)

Lab 7: Endeostigmata, Eupodina, Anystina

Lecture 11: Eleutherengona

Lab 8: Collecting from plants: spider mites, Eriophyoids

Lecture 12: Biocontrol

Friday

Lecture 13: Parasitengona (incl. chiggers, water mites)

Lab 9: Parasitengona; water mite collecting

Acariformes, Sarcoptiformes

Lecture 14: Oribatida

Lab 10: Oribatida

Lecture 15: Phoresy and genetic systems

Saturday

Lecture 16: Astigmata

Lab 11: Astigmata

Lecture 17: Astigmata

Lab 12: Identification of unknowns