

**Entomology – 10361 – Biology 312 – A01**

**Fall 2018**

**Instructor:**

Steve Perlman  
Cunningham 160F

**Lab Instructor:**

Neville Winchester  
Cunningham 228

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by appointment

**When and where:**

Lectures: Mondays and Thursdays, 10am-11:20am, Cunningham 146

Labs: Monday (2:30pm-5:20pm) or Tuesday (2:30pm-5:20pm), Cunningham 228

**Course description:**

This course will provide a detailed introduction to the field of entomology – the scientific study of insects, with an emphasis on insect evolution, ecology, and systematics. Lectures will include: an overview of insect morphology, internal anatomy, and physiology, and insect and arthropod phylogenetic relationships. Lectures will also include topics in insect ecology and evolution, including sexual selection and mating systems, sociality, medical entomology, and plant-insect interactions. In addition to lecture midterm and final exams, there will be one written assignment, which will consist of a paper critique. The laboratory portion of the course concentrates on insect identification, and collecting and curating techniques. As a lab project, students will prepare an insect collection.

**Textbook:** There is no required text. There will be required readings consisting of journal articles (uploaded onto Course Spaces).

## **BIOL 312, Fall 2018 – Grade Distribution and Important Dates:**

Lecture mid-term (Thu. Oct. 18)	20%
Lecture final (exam period TBA)	25%
Written assignment (due Thu. Nov 29)	10%

Lab quiz 1 (week of Oct. 1)	5%
Lab quiz 2 (week of Nov. 5)	5%
Lab test 1 (week of Oct. 15)	10%
Lab test 2 (week of Nov. 19)	10%

Lab project – insect collection:

part 1 of collection due week of Oct. 22	1%
parts 2 & 3 of collection due Mon. Dec. 3	14%

Penalty for late submission of the written assignment: 5% per day.

Note these important dates:

Last day for adding first term courses – Fri. Sep 21

Last day for withdrawing from 1<sup>st</sup> term courses without penalty of failure – Wed. Oct 31

Missed Tests – If you miss (or know beforehand that you will be missing) a test because of illness, accident, family affliction, or commitments as a UVic athlete, you are required to contact the appropriate instructor in a timely manner after the test (within ten calendar days). You are required to provide supporting documentation (example: a doctor's note, etc.) Documentation for such an absence will not normally be accepted beyond the ten calendar days and will result in a mark of zero. Except in the case of a missed final exam, all paperwork and any special arrangements for an absence must be completed by the last day of classes.

Students are reminded that final exams in the Faculty of Science run from December 8 through December 22. Final exams will not be rescheduled for students who make travel plans that conflict with the officially scheduled final exam for this course.

Please note that the Biology department does not offer supplemental final exams.

The convention used for assigning letter grades is as follows:

A+ (90-100), A (85-89), A- (80-84), B+ (77-79), B (73-76), B- (70-72), C+ (65-69), C (60-64), D (50-59), F (0-49)

**Academic Integrity and Preventing Plagiarism and Cheating - Academic integrity matters are governed by UVic's Policy on Academic Integrity. Please read this policy:** <http://web.uvic.ca/calendar2018-09/undergrad/info/regulations/academic-integrity.html>

**Please read this useful resource for avoiding cheating and plagiarism: UVic Libraries' plagiarism guide:**

<http://www.uvic.ca/library/research/citation/plagiarism/index.php>

**Course Experience Survey (CES):**

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to <http://ces.uvic.ca>. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device.

**A note to remind you to take care of yourself:**

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

- Counselling Services - *Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. <https://www.uvic.ca/services/counselling/>*
- Health Services - *University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives. <http://www.uvic.ca/services/health/>*
- Centre for Accessible Learning - *The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <https://www.uvic.ca/services/cal/>. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.*
- Elders' Voices - *The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being. <https://www.uvic.ca/services/indigenous/students/programming/elders/index.php>*

## **BIOL 312 Tentative Lecture Schedule – Fall 2018:**

Thurs. Sept. 6	1. Introduction and Importance of Insects
Mon. Sept. 10	2. Morphology
Thurs. Sept. 13	3. Introduction to Phylogenetics
Mon. Sept. 17	4. Phylogenetics and Ecdysozoa
Thurs. Sept. 20	5. Arthropods to Hexapods
Mon. Sept. 24	6. Pterygota and flight, Neoptera
Thurs. Sept. 27	7. Neoptera continued
Mon. Oct. 1	8. Holometabola and Metamorphosis
Thurs. Oct. 4	9. Holometabola continued
Mon. Oct. 8	Thanksgiving Holiday
Thurs. Oct. 11	10. Finishing Holometabola
Mon. Oct. 15	11. Internal Anatomy and Physiology
Thurs. Oct. 18	<b>Midterm Exam</b>
Mon. Oct. 22	12. Nervous System and Sensory Biology
Thurs. Oct. 25	13. Development, Life Histories
Mon. Oct. 29	14. Sexual Selection, Mating Systems
Thurs. Nov. 1	15. Insect Sociality
Mon. Nov. 5	16. Plant-Insect Interactions – Herbivory
Thurs. Nov. 8	17. Plant-Insect Interactions – Pollination
Mon. Nov. 12	<b>Reading Break - No Class</b>
Thurs. Nov. 15	18. Guest Lecture: Insect Conservation
Mon. Nov. 19	19. TBA
Thurs. Nov. 22	20. Parasitoids, Predators, Parasites
Mon. Nov. 26	21. Insect Symbionts
Thurs. Nov. 29	22. Medical Entomology
Mon. Dec. 3	23. Pests and Transgenics

## BIOLOGY 312 LAB SCHEDULE, FALL 2018

Dr. N. Winchester: winchest@uvic.ca

LAB#	WEEK OF	TOPIC
1	Sept. 10	Insects and Biodiversity – Introduction
2	Sept. 17	Insect External Anatomy
3	Sept. 24	Aquatic Insect Biodiversity
4	Oct. 1	Lepidoptera Biodiversity, <b>Quiz #1 Biodiversity</b>
	<b>Modules</b>	
5	Oct. 8	Thanksgiving – <b>NO FORMAL LABS</b>
6	Oct. 15	<b>Test #1 - Identification</b>
7	Oct. 22	Diptera Biodiversity, <b>Part 1</b> of insect collection is due
8	Oct. 29	Coleoptera Biodiversity
9	Nov. 5	Hymenoptera Biodiversity, <b>Quiz #2 Biodiversity</b>
	<b>Modules</b>	
10	Nov. 12	Reading Break – <b>NO FORMAL LABS</b>
11	Nov. 19	<b>Test #2 – Identification</b>
12	Nov. 26	Final work-up of insect collection

### MARKS

Quiz #1	5%
Quiz #2	5%
Test #1	10%
Test #2	10%
Insect collection part 1	1%
Insect collection part 2	7%
Insect collection part 3	7%
<b>Total</b>	<b>45%</b>

### NOTE:

1. Each lab includes several biodiversity modules that are meant to introduce you to the diverse field of entomology.
2. Format and details of the lab tests will be discussed by your lab instructor. The final lab test (test #2) is not cumulative except for order identification and Hemiptera identification.
3. Details of the insect collection will be discussed during the term. The insect collection is comprised of 3 components. The first component (Part 1) is due in lab during the week of Oct. 22<sup>nd</sup>. The second component (Part 2) and the third component (Part 3) is due in lab on December 3<sup>rd</sup> before 4:30pm.