This syllabus is a general representation of the course as previously offered and is subject to change.

BIOL/APBI 327 – Introduction to Entomology

General Course Syllabus (as of September 2019)

About the Course:

Course Description: A survey of the structure, classification and biology of insects; ecology, life-histories and insect-plant relations.

Course Format: Lecture and Laboratory
Credits: 3
Pre-requisites: One of BIOL 121 or SCIE 001

Course Learning Objectives:

By the end of this course, students will be able to:

- Identify the major morphological features of insects.
- Describe the unique anatomical and physiological characteristics of insects.
- Build a foundation in basic insect biology and ecology.
- Explain how insects affect/influence/interact with humans.
- Learn how to identify insects to the level of Order.

Textbooks and Additional Resources:

Lecture Recommended Text: Gullan PJ & PS Cranston (2010), The Insects. An Outline of Entomology, 4th Ed. Blackwell Science, Oxford, 584 pp.

Lab Recommended Text:

- Bland and Jaques (2010), How to Know The Insects, 3rd Edition. Waveland Press Inc., Illinois, 409 pp.
- APBI/BIOL 327 Lab Manual: Akhtar and Isman (2018)

All lectures and labs posted on **Canvas** (www.canvas.ubc.ca)

Evaluation:

Proposed mark distribution (subject to modification by the instructor):

Assessment	**Weight**
Midterm exam	25%
Lecture quizzes	8%
Final Exam	40%
Insect Collection ***OR*** Laboratory Exam	20%
Lab quizzes	7%

Schedule of Topics:

LECTURE SCHEDULE (subject to change):

Week	Topic
1	Introduction: Why study entomology?
2	External anatomy (head and mouthparts) External anatomy cont. (thorax, abdomen, wings, legs)
3	Integument, molting and endocrine control Reproduction, embryology and development
4	Respiration and circulation Excretion and water balance
5	Feeding and gustation Digestion and quantitative nutrition
6	Population biology
7	Vision Benefits of insects
8	**MIDTERM** Mechanics and energetics of flight
9	Morphology of insect sensilla Insect-plant interactions
10	Communications – pheromones Pests & pest management
11	Insect pathology Social Insects
12	Medical entomology Forensic entomology
13	Insect biodiversity and conservation Review

LAB SCHEDULE (subject to change):

Week	Topic
1	No labs
2	Introduction to taxonomy; insect collections
3	The insect head and mouthparts
4	Thorax and legs; wings and wing venation
5	Abdomen; internal anatomy (dissection)
6	Insect behavior; Non-insect arthropods
7	Apterygota and primitive pterygote orders
8	Orthopteroid orders
9	Hemipteroid orders
10	Panorpoid orders; Higher insect orders
11	Neuropteroid orders
12	Lab exam; Completion of insect collections

Course Policies:

- Students are required to attend all lectures.

University Policies:

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence.

> *UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom.*
>
> *UBC provides appropriate accommodation for students with disabilities and for religious, spiritual and cultural observances.*
>
> *UBC values academic honesty and students ae expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.*

Details of the policies and how to access support are available on the UBC Senate website.