

APBI/ Biology 327 (Introduction to Entomology)

Learning Outcomes: at the end of this course, students will know:

1. The major morphological features of insects
2. Unique anatomical and physiological characteristics of insects
3. Basic insect biology and ecology
4. How insects affect/influence/interact with humans
5. How to identify insects to the level of Order

Tentative Class Outline 2012

Month	Day	Lecture # on Course Website	Pages in Text	Lecture Content	
Sept	6	1-3	1-20	Introduction: Why study entomology?	
	11	1-3	32-41	External anatomy (head and mouthparts)	
	13	1-3	41-51	External anatomy contd. (thorax, abdomen, wings, legs)	
	18	4	122-126 135-138 152-156	Reproduction, Embryology and development	
	20	5	24-32 164-167	Integument, Molting, and endocrine control	
	25	15	359-361	Population biology	
	27	16	359-361	Population biology contd.	
Oct	2	8		Regulation of feeding	
	4	9	74-82	Digestion and quantitative nutrition	
	9	7	66-74	Respiration and circulation	
	11	10	82-84	Excretion and Water Balance	
	16	21	2-4	Benefits of insects	
	18	13	113-118	Vision	
	23	MIDTERM		MIDTERM	
	25	12	91-103	Morphology of insect Sensilla	
	30	17	307-312	Social insects	
	Nov	1	18	277	Insect-plant interactions
		6	11	58-60	Mechanics and energetics of flight
		8	6		Forensic entomology
		13	19	385	Medical entomology
15		22	Handout	Insect pathology	
20		20	408-413	Insects as pests	
22		14	104-113	Communication - Pheromones	
27		23	4-8 15-22	Insect biodiversity and conservation	
29		17		Review	

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

Instructors: Dr. Yasmin Akhtar 333 MacMillan 822-2329 and Dr. Murray Isman

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Tentative Laboratory Schedule – 2012

Sept	11,13	Introduction to taxonomy; insect collections
	18, 20	Insect head and mouthparts
	25, 27	Thorax and legs; wings and wing venation
Oct	2, 4	Abdomen; internal anatomy (dissection)
	9, 11	Insect behavior
	16, 18	Apterygota and primitive pterygote orders
	23, 25	Orthopteroid orders
Nov	30, 1	Hemipteroid orders
	6, 8	Panorpoid orders; Higher insect orders
	13, 15	Neuropteroid Orders
	20, 22	Other arthropods; insect evolution
Nov-Dec	27, 29	Lab exam; completion of insect collections

Recommended Text: Bland and Jaques (2010) *How to Know The Insects*, 3rd Edition. Waveland Press Inc., Illinois, 409 pp.

Labs 2-5 not posted on the website; handouts will be provided

Insect collection info: posted on the course website

Course website: <http://www.landfood.ubc.ca/undergraduate/course-listings/APBI327>

Course webCT: www.vista.ubc.ca

Evaluation: proposed mark distribution (subject to modification by the instructor) Midterm exam, 25%; Final Exam, 40%; Insect Collection *OR* Laboratory Exam, 25%; Written Assignment, 10%.

Meeting Times, Places:

Lectures: T, Th 8:30-9:30 am (sharp), MacMillan 166

Labs: T 1:30-3:30; 3:30-5:30 MacMillan 342
Th 1:30-3:30; 3:30-5:30 MacMillan 342

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