

Last Updated: **January 23, 2022**



UM | Faculty of Agricultural
and Food Sciences

Course Title: World of Bugs
Department of Entomology
Course Number: ENTM 1000

Academic Session: Winter 2022

Credit Hours: 3

Location, Meeting Days and Class Hours:

Cisco Webex online, Animal Science/Entomology Building

Monday/Wednesday/Friday 9:30 – 10:20 AM

Calendar Description

A survey of insect biology and life styles with emphasis on insect diversity and human-insect interactions.

Instructor Information

***Dr. Rob Currie**, 214a Animal Science/Entomology Building (Phone 204 798-9020)

Office hours: Any time except: T 10:00-13:00/ T/Th 1:00-2:15

***Contact for general inquiries about the course. Please include “ENTM 1000” in email subject.**

Mr. Jordan Bannerman, 206 Animal Science/Entomology Building (Phone 480-1021)

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Office hours: M/W 10:30-12:30 or by appointment

Dr. Kyle Bobiwash, 212A Animal Science/Entomology Building (Phone 474-6423)

E-mail: Kyle.Bobiwash@umanitoba.ca.

Office hours: Email for appointment

Dr. Alejandro Costamagna, 217A Animal Science/Entomology Building

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Office hours: Email for appointment

Dr. Jason Gibbs, 213A Animal Science/Entomology Building (Phone 474-7485)

E-mail: Jason.Gibbs@umanitoba.ca

Office hours: Email for appointment

Dr. Terry Galloway, 209 Animal Science/Entomology Building

E-mail: Terry.Galloway@umanitoba.ca.

Office hours: Any time in the morning, Email for appointment

Dr. Pat MacKay, 209 Animal Science/Entomology Building

E-mail: Patricia.Mackay@umanitoba.ca

Office hours: Email for appointment

Suggested Resource Material

[available at U of M Science and Technology Library, 5th Floor]

Gullen, P.J. and Cranston, P.S. 2014. The Insects: an Outline in Entomology. 5th ed. Blackwell Science.

Oxford. 595 pp. [Available online here \(control click\)*](#) note: for students a donation to a conservation charity is recommended.

- Whitfield, J.B. and Purcell, A.H. 2013. *Daly and Doyen's Introduction to Insect Biology and Biodiversity* 3rd ed. Oxford University Press. New York. 734 pp.
- Marshall, S.A. 2006. *Insects: Their Natural History and Diversity*. Firefly Books. Richmond Hill, ON. 718 pp.
- Berenbaum, M.R. 1995. *Bugs in the System: Insects and their Impact on Human Affairs*. Addison Wesley. Reading (MA).
- Borror, D.J. and White, R.E. 1970. *A Field Guide to Insects America North of Mexico*. Peterson Field Guide Series. Houghton Mifflin, NY.

Examinations and Grades

Your grade in this course is determined by the following three tests

Examination	Date	Percentage
Midterm Exam 1	Monday, 28 Feb, 2022	34%
Midterm Exam 2	Monday, 28 March, 2022	34%
Final Exam*	TBA Scheduled by University	32%

***All mid-term exams will be online and held during the normally scheduled class time. The final examination will be a one hour exam held online but in a time slot allocated by the registrar's office.**

Respondus lockdown browser and respondus monitor are required for online exams.

Students are required to write all exams on dates as scheduled. If a mid-term exam is missed for a verifiable and accepted reason (eg. Medical emergency), with prior written approval from the course coordinator the marks allocated for the mid-term exam will be divided equally between the two exams. The final exam is not cumulative and will be roughly equivalent in length (5 marks per lecture) and time (1 hour) to each of the mid-term exams.

Letter Grade Equivalency

A+ = >90%; A=80-89%; B+ =75-79%; B=70-74%; C+=65-69%; C=60-64%; D=50-59%; F=<50%.

Important Dates

First day of course.....	January 24, 2022
Voluntary withdrawal date.....	April 25, 2022
Final day of course.....	April 25, 2022
Exam period.....	April 26 to May 3, 2022

Academic Integrity

Academic dishonesty is a serious offense. Students should consult of the University Calendar (sections 7.1 & 7.2) or Website (http://umanitoba.ca/student/resource/student_advocacy/cheating_plagiarism_fraud.html) for policies and penalties for plagiarism, cheating and impersonation at examinations. Students can visit the course website on UM Learn for additional information on available student supports and relevant policies related to undergraduate courses.

Schedule: Lecture topics may be subject to change.

LECTURE OUTLINE

Initial Planning Schedule Draft for ENTM1000 2022					
Lecture#	Week	Date	Day	Lecturer	Topic
INSECTS THE HOW, WHY, WHAT and WHO					
1	1	24-Jan	Mon	RWC / All	Outline, introductions, overview
2	1	26-Jan	Wed	RWC	What makes an insect an insect (external anatomy)
3	1	28-Jan	Fri	RWC	What's in a bug? (internal anatomy)
4	2	31-Jan	Mon	JB	Why insects drive the world - part I
5	2	02-Feb	Wed	JB	Why insects drive the world - part II
6	2	04-Feb	Fri	JG	Fantastic bugs and where to find them
7	3	07-Feb	Mon	RWC	How insects survive adverse conditions
8	3	09-Feb	Wed	AC	They really get around
9	3	11-Feb	Fri	JG	Impacts of molecular data: Back to the future.
10	4	14-Feb	Mon	JG	Six-legged sex
MEDICAL AND VETERINARY					
11	4	16-Feb	Wed	TDG	Tick... tick... tick.... Boom!
12	4	18-Feb	Fri	TDG	For the love of lice
		21-Feb	Mon	No Lecture	Mid Term Break- Louis Riel Day
		23-Feb	Wed	No Lecture	Mid Term Break
		25-Feb	Fri	No Lecture	Mid Term Break
13	5	28-Feb	Mon	rwc/JB/AC/JG	Midterm Exam 1
14	5	02-Mar	Wed	RWC	The black death!
15	5	04-Mar	Fri	TDG	The blue-tailed fly
16	6	07-Mar	Mon	RWC	Bees gone bad: Killer bees in the Americas
Social Insects and Pollinators					
17	6	09-Mar	Wed	RWC	Dark side of Slavery and social parasitism in insects
18	6	11-Mar	Fri	RWC	Fact and fiction of social wasps
19	7	14-Mar	Mon	AC	Ants as farmers
20	7	16-Mar	Wed	JG	"World of pollination"
INSECT ECOLOGY and BEHAVIOUR: SURVIVAL OF THE FITTEST					
21	7	18-Mar	Fri	KB	Insect Plant interactions/Insect herbivore co-evolution
22	8	21-Mar	Mon	AC	Insects that threaten our food supply
23	8	23-Mar	Wed	AC	Where are they coming from? (landscape ecology)
24	8	25-Mar	Fri	PAM	Aphid life histories: complicated, short, brutal
25	9	28-Mar	Mon	RWC/TDG/AC/JG/KB/PAM	Midterm Exam 2
26	9	30-Mar	Wed	AC	Insect Invaders
27	9	01-Apr	Fri	AC	The name's Beetle. Lady Beetle
28	10	04-Apr	Mon	JB	Nightmare on Elm Street
29	10	06-Apr	Wed	JB	Aliens on Earth (Parasitoids)
30	10	08-Apr	Fri	JB	What's in the water?
31	11	11-Apr	Mon	KB	Chinks in the Chitin: Preserving insects and the web of life.
32	11	13-Apr	Wed	KB	Is it getting hot in here? (Insects and Climate Change)
Insects and Society					
	11	15-Apr	Fri	No Lecture	GOOD FRIDAY
33	12	18-Apr	Mon	TDG	Insects in the courtroom
34	12	20-Apr	Wed	JB	Exoskeletons in your closet
35	12	22-Apr	Fri	JB	Insects in art and culture
36	13	25-Apr	Mon	JB	Insects for fun and profit; overview of program
				AC/JB/KB/TDG	FINAL EXAM SCHEDULED BY UNIVERSITY