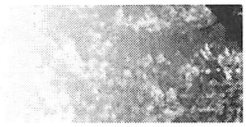
Lakehead
UNIVERSITY



COURSE OUTLINE: WINTER 2017

COURSE TITLE: ANIMAL BIOLOGY

COURSE CODE: BIOL 1110

CREDITS: 0.5

WEEKLY HOURS: 3.0 (2 lectures per week: Tues & Thurs 16h00-15h30)

ROOM: OA 1022

REQUIRED TEXT: Hickman Jr, C.P., Roberts, L.S., Keen, S.L., Larson, A., I'Anson, H., and D.J. Eisenhour. 2008. Integrated Principles of Zoology 14th edition, McGraw-Hill, New York, NY, 930 pp.
ISBN: 978-0-07-297004-3

PROFESSOR: DR. GERARDO REYES

OFFICE: x3008 (desk 7)

TELEPHONE: (705) 330-4008

E-MAIL: greyes@lakeheadu.ca

OFFICE HOURS: by appointment (e-mail's best)

---

1. COURSE DESCRIPTION:

An introduction to the study of the structure, function, and organization of animal life. Discussion of the evolution and classification of major invertebrate and vertebrate animal phyla, animal body plans, and reproductive strategies.

2. COURSE GOALS:

BIOL 1110 introduces students to the array of animal lifeforms inhabiting our planet, how they developed and radiated over geological time, and ultimately, helps to deepen one's appreciation of the functions and benefits that a rich & healthy biodiversity provides. Case-studies of current & emerging issues associated with the exploitation & conservation of biodiversity are examined through group research & discussion.

Lakehead UNIVERSITY

Knowledge gained

You will be introduced to key theoretical & conceptual foundations associated with the diversity of life;

Particular attention will be given to:

(a) understanding of how animal species developed & evolved; and
(b) providing evidence for the unity of life & how higher levels of structural organisation are constructed, & continuously updated.

Analytical, technical, & applied skills

You will:

a) improve identification skills; i.e., recognise & organise species into groups according to key characteristics;
b) improve critical reading skills through evaluation & review of assigned materials;
c) improve written communication skills by writing short-answer responses to questions related to assigned course readings; and
d) improve oral communication skills through class discussion; and
e) improve group environment & project management skills

3. MODES OF INSTRUCTION:

Assigned readings, lectures, and group discussions are employed.

The material presented in all modes of instruction is introductory in nature but will be sufficient to allow continuation to higher level courses required for completion of your respective BA or BSc degree programs. Students are expected to be prepared in advance prior to each lecture by completing assigned readings. Class time will build upon this base, focusing on important and/or more difficult concepts through *lecture and discussion.* Lectures will generally start with an introduction to the material by me, followed by a discussion and question period. Students should also take advantage of the lecture material accessed through the *desire2learn* site.

4. COURSE OUTLINE:

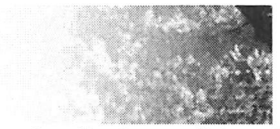
Again, all lectures will be interactive (lecture, discussion, question & answer), thus requiring students to read the assigned material prior to class. The course is designed to encourage active participation; thus, its success (& fun!) will depend on coming to class prepared and engaging one another in friendly discussion & debate; n.b., group discussion will provide you an opportunity to apply knowledge gained through previous lectures and reading materials.

Lakehead
UNIVERSITY

The tentative schedule is as follows:

Week 1	Jan 10	Welcome back! Introduction to animal biology
	12	Tracing evolutionary history & how animal populations evolved; taxonomy & classification; introduction to the 6 kingdoms
		Readings (R): 1, 10
Week 2	Jan 17	Mechanisms of evolution (from natural selection, mutation, gene flow, & genetic drift to speciation & radiation); population genetics;
	19	How to be an animal
		R: 5, 6, 7, 8, 9
Week 3	Jan 24	Sponges (Porifera)/Radiata (Cnidaria, Ctenophora, etc.)
	26	Flatworms (Platyhelminthes)**
		R: 12, 13, 14
Week 4	Jan 31	Roundworms (Nematodes) & Molluscs (Mollusca)
	Feb 2	**QUIZ A** (up to material including Platyhelminthes)
		R: 15, 16
Week 5	Feb 7	Segmented worms (Annelida)
	9	Arthropods I – Chelicerata
		R: 17, 18
Week 6	Feb 14	Arthropods II – Crustacea & Myriapoda
	16	***__MIDTERM – in class__***
		R: 18, 19, 20
Week 7	Feb 21	SPRING BREAK
	23	SPRING BREAK
Week 8	Feb 28	Arthropods III – Insects (Hexapoda)
	Mar 2	Echinoderms/intro to Chordates**
		R: 21, 22, 23

Lakehead
UNIVERSITY



Week 9	Mar 7	Cartilaginous fishes (Chondricthyes)
	9	Bony fishes (Osteichthyes)
		R: 24
Week 10	Mar 14	Amphibians (Lissamphibia)
	16	**QUIZ B** (Insects to Bony fishes)
		R: 25
Week 11	Mar 21	Reptiles I
	23	Reptiles II/Birds I
		R: 26, 27
Week 12	Mar 28	Birds II
	30	Mammals I**
		R: 27, 28
Week 13	Apr 4	Mammals II
	Apr 6	tba
		R: 28
Exam period		**Final Exam**

5. EVALUATION OF ACHIEVEMENT:

Quizzes, exams, & discussion periods** will reinforce student understanding of the topics covered in BIOL 1110. The mid-term & final exams will consist of multiple choice questions, definitions, and/or short answer questions. The exams are not cumulative.

QUIZZES:	**10 %**
MIDTERM:	**15 %**
FINAL:	**25 %**
PARTICIPATION:**	**10 %**
LAB	**40 %**

Lakehead
UNIVERSITY

GRADING SCHEME:

A+ A	90 to 100% 80 to 89%	Outstanding understanding of the course concepts including integration of materials and ideas, ability to apply knowledge to situations
B	70 to 79%	Above average to excellent knowledge, ability to apply knowledge to situations
C	60 to 69%	Satisfactory knowledge including ability to recognise and apply major course concepts, and to progress to next level of course
D	50 to 59%	Some grasp of course concepts; will likely encounter difficulty with higher levels
E	40 to 49%	Failed to meet minimum requirements of the course
F	1 to 39%	Failure
F	0	Failure resulting from academic dishonesty

6. STUDENT RESPONSIBILITIES:

Students are expected to participate in all course activities and complete all assignments on time. Late assignments carry a 25% reduction in value per day, no exceptions. This may seem rather severe, but it's just not fair to those who hand assignments in on time.

General regulations

Student Accessibility Services (SAS) (Thunder Bay) and Student Affairs (Orillia) coordinate services and facilitates reasonable academic accommodations for students with disabilities. Academic accommodations are provided on the basis of documentation of a disability. Additional information is available at the following campus websites:

Thunder Bay: http://learningassistance.lakeheadu.ca/.
Orillia: http://orillia.lakeheadu.ca/about-us--orillia-student-affairs/

Academic dishonesty (plagiarism):

The most common offense under the Academic Code of Conduct is plagiarism.

This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer

Lakehead
UNIVERSITY

to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. Finally, if you translate the work of another person into French or English and do not cite the source, this is also plagiarism.

I.E., DO NOT COPY, PARAPHRASE OR TRANSLATE ANYTHING FROM ANYWHERE WITHOUT CITING WHERE YOU OBTAINED IT!

University guidelines on the matter:

The University takes a most serious view of offences against academic honesty such as plagiarism, cheating and impersonation. Penalties for dealing with such offences will be strictly enforced.

A copy of the "Code of Student Behaviour and Disciplinary Procedures" including sections on plagiarism and other forms of misconduct may be obtained from the Office of the Registrar.

The following rules shall govern the treatment of candidates who have been found guilty of attempting to obtain academic credit dishonestly.
(a) The minimum penalty for a candidate found guilty of plagiarism, or of cheating on any part of a course will be a zero for the work concerned.
(b) A candidate found guilty of cheating on a formal examination or a test, or of serious or repeated plagiarism, or of unofficially obtaining a copy of an examination paper before the examination is scheduled to be written, will receive zero for the course and may be expelled from the University.

Students disciplined under the Code of Student Behaviour and Disciplinary Procedures may appeal their case through the Judicial Panel.

Note: "Plagiarism" shall be deemed to include:

1. Plagiarism of ideas as where an idea of an author or speaker is incorporated into the body of an assignment as though it were the writer's idea, i.e. no credit is given the person through referencing or footnoting or endnoting.
2. Plagiarism of words occurs when phrases, sentences, tables or illustrations of an author or speaker are incorporated into the body of a writer's own, i.e. no quotations or indentations (depending on the format followed) are present but referencing or footnoting or endnoting is given.
3. Plagiarism of ideas and words as where words and an idea(s) of an author or speaker are incorporated into the body of a written assignment as though they were the writer's own words and ideas, i.e. no quotations or indentations (depending on format followed) are present and no referencing or footnoting or endnoting is given.

A listing of University Regulations can be found at:
http://calendar.lakeheadu.ca/current/contents/regulations/univregsintro.html

The code of student behaviour and disciplinary procedures can be found at:

http://policies.lakeheadu.ca/policy.php?pid=60