UNIVERSITY OF SASKATCHEWAN

COURSE SYLLABUS

COURSE TITLE:	BIOL 121 The Diversity of Life		
COURSE CODE:	61132	TERM:	Q4 Spring and Summer 2016
COURSE CREDITS:	3.0	DELIVERY:	Lecture & Practicum (Lab)
CLASS SECTION:	01	START DATE:	July 19th, 2016
CLASS LOCATION:	106 Biology	LAB LOCATION:	204 Biology Bldg
CLASS TIME:	8.30 to 10.50 am (MTWRF)	LAB TIME:	1:30 am to 4:20 (MTWRF)
WEBSITE:	via Blackboard		

Course Description

This course is designed to introduce you to the vast and exciting field of biology, with a focus on biological diversity, evolution, adaptations of organisms to specific environments, and the evolutionary and ecological factors influencing changes in biodiversity over time and space.

Our world has at least 15 million species, all of which have adapted to particular environments and lifestyles and use energy to grow and reproduce. We examine these processes in representative organisms from all the major groups, and discuss factors influencing changes in biodiversity over time and space.

Prerequisite(s): Biology 30 or BIOL 107 or BIOL 108.
Note: Students with credit for BIOL 110 will not receive credit for BIOL 121.

Learning Outcomes

By the completion of this course, students will be expected to:

1. have an understanding of biological principles (concepts), and that evolution is the unifying principle in biology
2. gain an appreciation for biology as an experimental science [hence, provide necessary background for advanced study of biology and other related disciplines], and realize that an understanding of biological principles requires knowledge of other fields of science (chemistry, physics, geology, geography, mathematics, biochemistry) and many disciplines within biology (e.g. evolution, ecology, genetics, physiology, structure and function, ethology, parasitology, molecular biology, etc.).
3. obtain knowledge of the diversity and complexity of life, which includes how organisms are adapted to their environment and the variation (e.g. morphological, genetic, physiological, behavioral) that exists among individuals of the same species and between individuals of related species
4. be able to think critically regarding scientific issues in our society and understand the importance of relationships between organisms and their environment, and how biodiversity is constantly changing over time

Note: The University of Saskatchewan Learning Charter is intended to define aspirations about the learning experience that the University aims to provide, and the roles to be played in realizing these aspirations by students, instructors and the institution. A copy of the Learning Charter can be found at: http://www.usask.ca/university_secretary/LearningCharter.pdf

More information on the Academic Courses Policy on course delivery, examinations and assessment of student learning can be found at:
http://policies.usask.ca/policies/academic-affairs/academic-courses.php

Instructors

Contact Information:

Dr. Douglas Smith Instructor	room 150 Biology Bldg dh.smith@usask.ca	966-4415
Gillian Murza room Lab Coordinator	room 216 Biology Bldg gillian.murza@usask.ca	966-4423
Joel Yurach Lab Coordinator	room 216 Biology Bldg joel.yurach@usask.ca	966-4423

INSTRUCTIONAL RESOURCES: TEXTBOOK AND LAB MANUAL

E-Textbook: Principles of Biology (non-expiring access card) ISBN 978-1-942310-72-3

Access to this E-Textbook can be purchased online or at the University Bookstore.

The textbook will be referred to regularly during lectures both in terms of content and for the use of visual aids. It may also be helpful for reviewing the material. You will not need to bring your textbook to class.

Two copies of the textbook are available in the lab but they are not available for use outside the lab room. The lectures are intended to highlight and reinforce key concepts. Please see the Learning Objectives Summary, which will be posted on Blackboard with this outline for a more detailed description of the topics you will be responsible for on the midterm and final exam.

The Lab Manual for Biology 121.3 (2015-16 Edition) is required for the course, and must be brought to each lab session. It is available for purchase from the U of S Bookstore.

Downloads

Partial class notes will be posted throughout the course on Blackboard. You should download the new notes once they are posted and then bring them to lecture. This “Class Syllabus” posted on Blackboard should be downloaded and read ahead of time.

Laboratory Information:

1. Labs begin on Wednesday, July 20th, 2016. Students are expected to attend and be on time for all scheduled labs, review labs and final lab exams. The lab schedule is provided on the last page of this document.

2. **The current edition of the Biology 121.3 lab manual is required for all labs** (this item can be purchased for at the Bookstore in Marquis Hall). For your labs you will also need a 3-ring binder; a 2H, 3H or 4H drawing pencil, white (unlined) drawing paper, a calculator, an eraser, and a metric ruler (all available from the Tuck Shop or North 40 shop on campus).

3. Any other questions regarding the lab should be directed to the laboratory staff in Room 216. See page 2 of the lab manual for contact telephone numbers.

Attendance Expectations for Laboratory Classes

Students are expected to attend all scheduled lab periods. Students are advised to consult the lab manual for further information about BIOL 121 procedures to follow when they are too ill to attend the lab period (and/or lab exam) or are facing extenuating personal circumstances.

Grading Scheme

Midterm exam	15
Final exam	45
Lab Assignments & quizzes	20
Lab exam	20
Total	100%

Evaluation Components

Midterm Lecture Exam:

Value: 15% of final course grade
Date: July 28th, 2016 (to be written during the lecture period)
Length: 40 minutes
Format: 40 multiple-choice questions; machine marked
Description: Based on lecture material prior to July 28th. Use of calculators and all other electronic devices is not allowed.

Final Lecture Exam:

Value: 45% of final course grade
Date: To Be Announced; Q4 exams written between August 10th -12th, 2016
Length: 3 hours
Format: 100 multiple-choice questions; machine marked
Description: The exam is comprehensive in that it will cover all lecture material. However, material delivered after the midterm exam will be emphasized. Calculators, phones and all other electronic devices are not allowed.

Laboratory Assignments & Quizzes:

Value: 20% of final course grade
Date: see Laboratory Schedule
Format: Quizzes (written); spot tests; flower project. Spot tests involve images shown in PowerPoint and short questions about the specimen shown. No phones, calculators or electronic devices are to be used during exams. Additional information about the lab quizzes is found in your lab manual, and will be given in the weeks prior to the assignment.

Final Laboratory Exam:

Value: 20% of final course grade
Date: August 8th, 2016 (during the lab session)
Length: 1.5 hours
Format: This will be a mixture of spot test, short written answers and practical questions (slide prep, etc.)
Description: The final exam is comprehensive in that it will cover all laboratory classes. Calculators and all other electronic devices are not allowed.

Scheduling of Exams

Students must bring their current University of Saskatchewan student card to all exams and be prepared to present it for verification purposes. Entry into certain campus buildings where exams may be held, also requires a valid student card.

It is forbidden for students to utilize in any way during an exam, any electronic device (e.g., cell phone, dictionary, palm pilot, translator, etc.). This includes calculators because these are not required for any exam.

Midterm and final examinations, and the lab exam, must be written on the date scheduled. Final examinations may be scheduled at any time during the examination period in August 12-14 2015; students should therefore avoid making prior travel, employment, or other commitments for this period.

In the event that a student is absent from the **midterm exam** through no fault of his/her own due to a medical emergency, death in the family, or other valid reasons, documentation must be provided explaining the absence, to assist in the determination of whether permission will be granted for the student to write a deferred mid-term exam. Students absent for the Mid-Term Lecture Exam **must advise their Instructor in person or by telephone (not by email) and initiate arrangements for writing a Deferred Mid-Term Exam, within TWO WORKING DAYS of the missed exam**, in order to avoid being assigned a grade of zero for the exam.

If a student is absent from the **final exam** through no fault of his or her own for medical or any other valid reason, **he/she must apply to the Dean's Office of the College in which he/she is registered for an opportunity to write a Deferred Final Exam**, **within THREE WORKING DAYS of the missed exam**. Documentation must also be provided to explain the absence from the final exam. Deferred exams may utilize a different format than the regular exam, at the sole discretion of the instructors.

Consult page 2 of the 2015-2016 Lab Manual for the procedure to follow for a missed Lab Exams and Quizzes.

Students are encouraged to review all examination policies and procedures:
http://policies.usask.ca/policies/academic-affairs/academic-courses.php

Student Feedback

Multiple-choice lecture marks are machine-graded. The multiple-choice questions will not be posted after the exam. Students will be encouraged to meet with the instructor to review their performance.

Integrity Defined (from the Office of the University Secretary)

The University of Saskatchewan is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Student Conduct & Appeals section of the University Secretary Website and avoid any behavior that could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

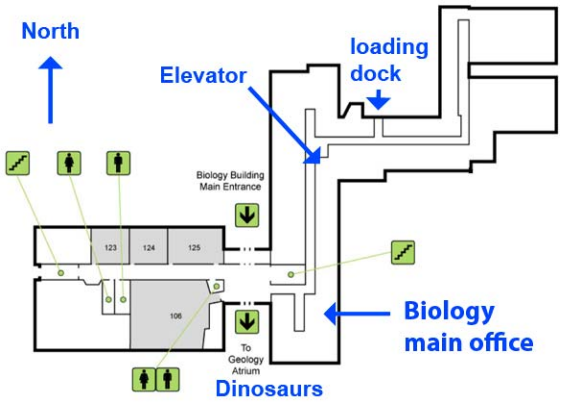
All students should read and be familiar with the Regulations on Academic Student Misconduct http://www.usask.ca/secretariat/student-conduct-appeals/academic-misconduct.php as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals
http://www.usask.ca/secretariat/student-conduct-appeals/non-academic-misconduct.php
For more information on what academic integrity means for students see the Student Conduct & Appeals section of the University Secretary Website at:
http://www.usask.ca/university_secretary/pdf/dishonesty_info_sheet.pdf

Important Note: Additional information about student misconduct specific to BIOL 121 is found in the laboratory manual. BIOL 121 students are required to read and understand the information about misconduct that is presented in the laboratory manual.

Examinations with Disability Services for Students (DSS)

Students who have disabilities (learning, medical, physical, or mental health) are strongly encouraged to register with Disability Services for Students (DSS) if they have not already done so. Students who suspect they may have disabilities should contact DSS for advice and referrals. In order to access DSS programs and supports, students must follow DSS policy and procedures. For more information, check http://www.students.usask.ca/disability/, or contact DSS at 966-7273 or dss@usask.ca.

Students registered with DSS may request alternative arrangements for mid-term and final examinations. Students must arrange such accommodations through DSS by the stated deadlines. Instructors shall provide the examinations for students who are being accommodated by the deadlines established by DSS.



Students requiring an elevator for access to the second floor in the Biology Building (teaching labs and some faculty offices) may use the elevator in the Museum of Natural Sciences. Alternatively, or if offices on the 3rd floor of the Biology Building need to be accessed, there is an elevator located at the north end of the research wing, opposite Room 130.

Lecture And Laboratory Schedule

DAY	MAJOR LECTURE TOPICS	LAB TOPIC (see lab manual for details)
1 Tues. July 19	Course Introduction Living & Non-living Entities	NO LAB
2 Wed. July 20	Introduction to Biodiversity	LAB 1 - Introduction & Prokaryotes
3 Thurs. July 21	Classification of organisms	LAB 2 - Protists
4 Fri. July 22	Classification of organisms	LAB 3 - Fungi
5 Mon. July 25	Intraspecific & interspecific variation; Microevolution & Macroevolution	LAB 4 - Mosses, ferns & club mosses
6 Tues. July 26	Intraspecific & interspecific variation; Microevolution & Macroevolution	LAB 5 - Conifers & angiosperms
7 Wed. July 27	Microevolution &Macroevolution Changes in Biodiversity through time	NO LAB
8 Thurs. July 28	**Midterm Exam.** Changes in biodiversity through time	LAB 6 – Sponges, Cnidarians, Flatworms, & Nematodes
9 Fri. July 29	Changes in biodiversity through time	NO LAB
10 Mon. Aug. 1	**HOLIDAY**	**NO LAB**
11 Tues. Aug. 2	Biodiversity today	LAB 7 - Mollusks, Annelids & Arthropods
12 Wed. Aug. 3	Interactions between organisms and effects on biodiversity	LAB 8 - Echinoderms & Chordates
13 Thurs. Aug. 4	Interactions between organisms and effects on biodiversity	**REVIEW**
14 Fri. Aug. 5	Interactions between organisms and effects on biodiversity. Human influences on biodiversity	**Additional review if necessary**
15 Mon. Aug. 8	Human influences on biodiversity	**FINAL LAB EXAM**
16 Tues. Aug. 9	Human influences on biodiversity Review	NO LAB