BIOLOGY 224.3 – Animal Body Systems
Syllabus and Course Outline
St. Peter's College, Section 96
2013-2014 T2 (Jan. 2nd to Apr. 8th)

COURSE DESCRIPTION:

Prerequisites: BIOL 120.3, BIOL 121.3 is strongly recommended
Students will study the problems all animals overcome in order to survive and reproduce, and the different body systems that must deal with both unique and common environmental challenges.

Note: Students with credit for BIOL 203 or BIOL 217 or HSC 208 will not receive credit for BIOL/BMSC 224.

LEARNING OUTCOMES:

In both a lecture and laboratory setting, students will be expected to learn how most systems within an animal's body function, and how homoeostasis in maintained. Animal systems studied include: nervous systems, sensory systems, skeletal-muscular systems, endocrine and reproductive systems, urinary and osmoregulatory systems, respiratory systems, circulatory systems, digestive systems and thermoregulatory/metabolic systems.

INSTRUCTOR:

Kim Cross

CONTACT:

kim.cross@usask.ca (general response time: 24hrs except stat holidays)

OFFICE HOURS:

Tuesday and Thursday, 12pm to 1pm and 4pm to 5pm
Faculty Office or Bio Lab

TEXTS:

1. **Animal Physiology, From genes to organisms, Second ed.** by Sherwood ISBN 13: 978-0-8400-6865-1 (Snowy owl on cover)
2. **2013-2014 Lab Manual** for Biology 224.3

GRADES:

Your final grade for Biology 224.3 is calculated based on the following marks:

Lecture Mid-Term Exams	=20%
Lab Assignments and Exams	=35%
Lecture Final Exam	=45%
TOTAL GRADE	= 100%

LECTURES:

Scheduled Lecture Times

Tuesday, 9am to 12pm

Your first lecture will be Thursday Jan. 2nd, in place of the lab time (1pm to 4pm). Please look on PAWS or bblearn.usask.ca for posted notes, class information and readings. In fact you should make a habit of logging in to PAWS/bblearn on a weekly basis (at a minimum) as new readings and announcements for Biology 224.3 are typically posted on Sunday or Monday of each week.

Lecture Evaluations

As a student, you must bring your current College or University of Saskatchewan student ID card to all exams and be prepared to present it for verification purposes.

It is forbidden for you to utilize, in any way during an exam, any electronic device (e.g., cell phone, dictionary, palm pilot, translator) other than a simple calculator (if required by the examiner) for solving mathematical problems.

There will be two Mid-Term Lecture Exams (Feb 4th, 2014 and March 18th, 2014). These are worth 10% each, or collectively 20% of your grade. In the event that you are absent from these exams due to a medical emergency, death in the family, or another exceptional circumstance, it is **necessary for you to present documentation (e.g. medical certificate, death notice or verification) explaining the absence**, to assist in the determination of whether permission will be granted for you to write a deferred mid-term exam. **Students absent for a Mid-Term Lecture Exam must advise their lecturer in person, by telephone or by e-mail and initiate arrangements for writing a Deferred Mid-Term Exam, within THREE WORKING DAYS of the missed exam**, in order to avoid being assigned a grade of zero for the exam.

A Final Lecture Exam (worth 45% of your grade) will be held in April 2014, as arranged by the University of Saskatchewan or your College. If you are absent for a legitimate reason **you may apply for a Deferred Final Exam within THREE WORKING DAYS of the missed exam to Student Services or to your biology lecturer.**

LABORATORIES:

Scheduled Lab Times

Thursday, 1pm to 4pm

The laboratory portion of BIOL/BMSC 224.3 will require a working knowledge of computers, as these will be used extensively to collect and analyze data in the laboratory. Consequently, you will need access to a computer, printer, the Internet, email, the software program Microsoft Excel and a word processing program. This can be accessible from your home computer or your College/University computer account.

The current edition of the Lab Manual for Biology/BMSC 224.3 is required for all labs. Please make sure that you read the lab instructions and answer any necessary questions before going to your scheduled lab section. There are also suggested readings for each lab found on reserve in the library. These readings will greatly increase your understanding of the material presented in both lecture and lab.

The first lab will January 8th, 2014. Make sure you have registered for a lab section. Your instructor will show you where the lab room is located during the first lecture. You are expected to attend (and be on time for) all scheduled labs, review labs and final lab exams.

Laboratory Evaluations

There are weekly assignments, three quizzes and one final lab exam, worth 35% of your grade. Completion of all of the assignments, quizzes and the final exam are required for successful completion of the laboratory component of the course.

If you miss a lab assignment or lab exam it is **necessary for you to present documentation (e.g. medical certificate, death notice or verification) explaining the absence**, to assist in the determination of whether permission will be granted for you to complete the lab assignment or final lab exam. **Students absent for an assignment or final exam must advise their instructor in person, by telephone or by e-mail and initiate arrangements for completion of the required work, within THREE WORKING DAYS of the missed assignment or exam**. If no arrangements are made, a grade of zero will be applied to the missed assignment or exam.

STUDENTS WITH A DISABILITY:

Disability Services for Students provides accommodations and services to part-time and full-time students with temporary and permanent disabilities.

Services include exam accommodations, note-taking services, referrals for assessments, counselling and other advocacy support.

Students with a disability or students interested in more information about these services please contact your College's Student Services (682-7888 at St. Peter's) and then contact Disability Services for Students at 966-7273 or visit **www.students.usask.ca/disability**

The College Student Services or University of Saskatchewan Disability Services will then contact your biology instructor(s). It is not necessary, but the student may also wish to inform the instructor(s) of any accommodations previously arranged or required.

OTHER ASSISTANCE:

If you are having difficulty with the course material, please seek assistance from your instructor, student services and/or other services. For instance, the Academic Center for Excellence at St. Peters College has been a great help to many St. Peter's students.

Please remember your instructor is there to help you both in class and out of class. Do not be afraid to ask questions after class or if you see your instructor in the hall. If you require a more private discussion arrange to meet your instructor in the faculty office.

ACADEMIC HONESTY:

The College follows the rules and guide-lines set out by the University of Saskatchewan as it pertains to academic honesty. It is the responsibility of all students to uphold the highest standards of integrity and honesty with respect to all of their academic work. It is in your best interest and is your responsibility to make yourself aware of the implications and consequences of engaging in academically dishonest activities. Please visit: **http://www.usask.ca/university_secretary/honesty/index.php**

REQUIRED COURSE WORK:

It is to the student's benefit to be on time and attend all lectures and labs. Completion of all assignments and exams is required to pass this course.

LECTURE AND LAB SCHEDULE FOR BIOLOGY 224.3 (2013-2014 T2)
(Approximate number of 50 minute lectures indicated in brackets)

TERM II	LECTURE TOPIC (Tues. 9am to 12pm)	LAB TOPIC (Thurs. 1pm to 4pm)
WEEK 1 (Jan. 2,3)	During Lab Time	Intro (1); Evolution of animals (1); Adaptation/Homeostasis (1)
WEEK 2 (Jan. 6-10)	Nervous System (3)	Lab organization & Introduction to MS Excel
WEEK 3 (Jan. 13-17)	Nervous & Sensory system (3)	Exercise 1: Introduction to LabScribe
WEEK 4 (Jan. 20-24)	Skeletal-muscle system (3)	Exercise 2: Recording action potentials
WEEK 5 (Jan. 27-31)	***Assigned readings Development videos & assignment***	NO LAB
WEEK 6 (Feb. 3-7)	**MIDTERM I;** Reproduction (2) *Guest Lecturer: R. Cross*	NO LAB
WEEK 7 (Feb. 10-14)	Endocrine system (3)	Exercise 3: Sensory physiology **(Quiz)**
***WEEK 8** (Feb. 17-21)*	***Midterm Break, No Lecture & No Lab***	
WEEK 9 (Feb. 24-28)	Osmoregulation (3)	Exercise 4: Skeletal muscle physiology
WEEK 10 (Mar. 3-7)	Respiratory system (3)	Exercise 5: Osmoregulation **(Quiz)**
WEEK 11 (Mar. 10-14)	Circulatory system (3)	Exercise 6: Respiratory physiology
WEEK 12 (Mar. 17-21)	**MIDTERM II** Catch-up/Review Lecture *Guest Lecturer: R. Cross*	NO LAB
WEEK 13 (Mar. 24-28)	Digestive system & Energy(3)	Exercise 7: Circulatory system physiology
WEEK 14 (Mar. 31 – Apr. 4)	Temperature & Metabolism (3)	Exercise 8: Metabolism **(Quiz)** Review (Sat, April 5th, 2:30pm)
WEEK 15 (Apr. 7,8)	**Final Lab Exam (Apr 8th, 9am)**	

BIOLOGY 224.3 LECTURE OUTLINE AND TEXT READINGS (2013-2014 T2)
Lecture outline and reading will be given out during the first lecture.