UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

Department of Biological Sciences
BI 186
403 220-3140
biosci@ucalgary.ca

COURSE OUTLINE

1. **Course:** ZOOL 403, An Introduction to Vertebrate Zoology - Fall 2020

   Lecture 01: MWF 10:00 - 10:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Jessica Theodor	jtheodor@ucalgary.ca	403 210-9819	BI 353	F 10 am - 11 am, or by appointment

Email: I will respond to your email inquiries about the course within **24 hours** except on weekends and holidays.

In Person Delivery Details:

The labs will alternate online and in person, each week, beginning the week of Sept. 14, to allow social distancing in the lab. There will be an introductory pre-lab online for the first lab. Each lab section will be divided into two permanent groups, A and B (you will receive your assignment by e-mail). All in person labs meet in BI 044/046. The labs will alternate groups as follows in the table below:

Dates	Group A	Group B
Sept. 9-11	NO LAB	NO LAB
Sept. 14-18	(prelab on D2L) **Fishes: diversity**, in person	(prelab on D2L) **Fishes: form and function**, online D2L
Sept. 21-25	**Fishes: form and function**, online D2L	**Fishes: diversity**, in person
Sept. 28-Oct. 2	**Amphibians: diversity**, in person	**Amphibians: form and function**, online D2L
Oct. 5-9	**Amphibians: form and function**, online D2L	**Amphibians: diversity**, in person
Oct. 13-16	**Mammals: diversity**, in person	**Mammals: form and function**, online D2L
Oct. 19-23	**Mammals: form and function**, online D2L	**Mammals: diversity**, in person
Oct. 26-30	**Squamates and Turtles: diversity**, in person	**Squamates and Turtles: form and function**, online D2L
Nov. 2-6	**Squamates and Turtles: form and function**, online D2L	**Squamates and Turtles: diversity**, in person
Nov. 8-14	**READING BREAK**	**READING BREAK**
Nov. 16-20	**Archosaurs: diversity**, in person	**Archosaurs: form and function**, online D2L
Nov. 23-27	**Archosaurs: form and function**, online D2L	**Archosaurs: diversity**, in person
Nov. 30-Dec. 4	**LAB EXAM, online and oral exam**	**LAB EXAM, online and oral exam**

Safety protocol: The alternation of groups A and B will allow there to be social distancing in the lab. Students will be required to wear a mask (not provided) and gloves (provided) in the lab while handling specimens. Students will be placed at a station, and asked to disinfect using wipes provided before moving to the next station at the time announced by the TA. Students will be asked to exit the lab individually before the end of the lab time to prevent congestion in the hallways outside BI 044/046.

Due to the design of the course, the same material will be available in the lab for 2 weeks, and then is returned to collections storage. This limits the opportunities to make up a missed in-person lab. Accommodations for a missed in-person meeting can be made if the absence is known in advance, and on a case by case basis in the case of illness or other unforeseen absence.

Photography will be permitted in the lab, but photographs of lab specimens should not be shared on social media.

Online Delivery Details:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

The online component includes the lectures, lab quizzes and exams. The first lecture will be delivered

synchronously (link on D2L). Some of the lecture material will be delivered as asynchronous videos on D2L along with reading assignments in the textbook. Synchronous lectures will be announced on D2L and by e-mail in advance, and recorded and posted afterwards. Students will be expected to watch the posted videos and review the assigned reading each week. There will be some Zoom open discussion each week for questions during the scheduled time when the lecture material is asynchronous, as well as a discussion board available on D2L, and office hours/appointments available with the instructor.

Lab quizzes will be delivered on D2L each week.

Course Site:

D2L: ZOOL 403 L01-(Fall 2020)-An Introduction to Vertebrate Zoology

Note: Students must use their U of C account for all course correspondence.

Lecture schedule:

Week 1: 09/09 - Course introduction

11/09 - What is a vertebrate?

Week 2: 14/09 - Phylogenetics

16/09 - Jawless fishes

18/09 - Cartilaginous fishes

Week 3: 21/09 - 23/09 - Cartilaginous fishes

25/09 - Ray-finned fishes

Week 4: 28/09 - 30/09 - More ray-finned fishes

02/10 - Fleshy-finned fishes

Week 5: 05/10 - Tetrapoda and living on land

07/10 - 09/10 - Amphibians

Week 6: 12/10 **Thanksgiving, no lecture**

14/10 -16/10 - Amphibians

Week 7: 19/10 - Amphibians

21/10 - Mammals

23/10 **Midterm exam (covers up through 19/10), 6 PM MDT**

Week 8: 26/10-30/10 Mammals

Week 9: 02/11-04/11 Mammals

06/11Turtles

Week 10: 16/11-18/11 Turtles

20/11 Lizards and snakes

Week 11: 23/11-25/11 Lizards and snakes

27/11 Crocodiles

Week 12: 30/11 - 4/12 Birds

Week 13: 7/12 Birds

9/12 Review

2. **Requisites:**

See section 3.5.C in the Faculty of Science section of the online Calendar.

Prerequisite(s):
Biology 371.

Antirequisite(s):
Credit for Zoology 403 and either Zoology 477.01 or 477.02 will not be allowed. Also known as: (formerly Zoology 379)

3. **Grading:**

The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Surveys	3%	posted on D2L
Midterm exam - on D2L out of class time	20%	Oct. 23 from 6 - 7:30 p.m., D2L
Lab quizzes (best 9 of 10)*	10%	Weekly on D2L
Lab assignments	20%	One week after each in person lab
Wildlife observation	7%	Ongoing, complete Dec. 9
Final lab exam (online in D2L and oral)	15%	Dec. 1/13
Final lecture exam	25%	TBA

*Should a student miss a quiz, that will be the one automatically dropped as being the lowest score.

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	90 %	85 %	80 %	77%	73%	70 %	67 %	63%	60%	55 %	50 %

This course has a registrar scheduled final exam.

Students must earn a passing grade (50%) in the lab component in order to pass the course, and if they earn less than that mark, the highest grade they can earn is a D+.

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

5. **Scheduled Out-of-Class Activities:**

The following out of class activities are scheduled for this course.

Activity	Location	Date and Time	Duration
Midterm	D2L	Friday, October 23, 2020 at 6:00 pm	90 Minutes

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with the out-of-class-time-activity, please contact your course coordinator/instructor no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made.

6. **Course Materials:**

Required Textbook(s):

F. Harvey Pough, Christine M. Janis, *Vertebrate Life, 10th Edition*: Sinauer.

Lab materials will be in the Lab folder on the course D2L site.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC ELearning online website.

7. **Examination Policy:**

The quizzes will be made available immediately after your scheduled lab period and will be available until the beginning of the next lab period. Quizzes are designed to be able to be completed in 30 minutes, but to allow for technical issues you will be given 2 hours to complete the quiz once you begin it.

The midterm exam is synchronous , and is designed to take 60 minutes. It will be open to you on D2L beginning at 6 pm MDT on Oct. 23. You must begin the exam by 6:30 pm MDT, and you will be permitted 90 minutes to complete it to account for any technical issues. Time will be adjusted for SAS students if needed and accommodations for students will be done on a case-by-case basis.

The lab final exam will be made available at 10 am Dec. 1 and will be until 10 am Dec. 9, and will be designed to be completed in 60 minutes, to allow for technical issues you will be permitted 90 minutes. The oral component of the lab exam will be during the scheduled lab period, you will be assigned a time slot for a 5 minute interview with the instructor, during which you will be asked questions about specimens that you will be able to see over Zoom.

IMPORTANT: It is the student's responsibility to ensure they have adequate computer and internet access to write the exams. Students will be required to begin their exams promptly at the start of the scheduled class on the day of the exam. If a student encounters any technical issues starting an exam, they **must** document the issue by taking a photo, screenshot, or video, and they must contact the instructor immediately so that either additional time can be provided to access the exam or alternative arrangements made. Students claiming to experience such difficulties who do not contact their instructor providing evidence of technical difficulties within 15 minutes of the scheduled start of the exam will not be allowed to write the exam and will receive a grade of zero (0) on the exam. If a student's exam is suspended during the exam (lost internet connection, internet browser crash, etc.) they **must** provide evidence (photo/screenshot/video) and contact the instructor immediately. Students will then be granted re-entry to suspended exams if they began the exam on time, provided evidence of the suspension, and still have time remaining to complete the exam.

The exams are open book, meaning that you may access your lecture/lab notes or the textbook during exams. No other aids are allowed on tests or examinations, including accessing internet resources such as search engines (Google etc), other websites, shared documents (Google docs etc) or chat servers (Discord, WhatsApp etc), etc., and you are specifically prohibited from working with or contacting any other individuals while you complete the exam.

Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human & Living Organism Studies Statements:**

If you agree, your course work may be used for research purposes. Your responses will remain anonymous and confidential. Grouped data (no individual responses) may be used in academic presentations and publications. Participation in such research is voluntary and will not influence grades in this course. Students' signed consent forms will be withheld from instructors until after final grades are submitted. More information will be provided at the time student participation is requested.

See also Section E.5 of the University Calendar.

STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS. Students taking laboratory and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The Department strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered by the Department of Biological Sciences should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

Students are expected to be familiar with Section SC.4.1 of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar

b. **Final Exam:**The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

Requests for grade reappraisal must be submitted in writing with an explanation of the reason for the regrade request. Regrades are not necessarily limited to a single exam question and the entire examination or assignment may be regraded.

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Center:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if

it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples**.

e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at procedure-for-accommodations-for-students-with-disabilities.pdf.

   Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head, Undergraduate of the Department of Biological Sciences, Heather Addy by email addy@ucalgary.ca or phone 403 220-6979. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See Section E.4 of the University Calendar.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see Legal Services website.

g. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

Course Learning Outcomes:

By the end of this course you will be expected to:

1. Contrast the features that distinguish vertebrates from other metazoans
2. Describe the major clades of vertebrates, their distribution, life history and evolutionary relationships
3. Explain the links between vertebrate metabolism and life history
4. Identify vertebrate specimens to major clade
5. Document vertebrate specimens using appropriate vocabulary and labels
6. Identify the locomotor and feeding mode of vertebrates

Electronically Approved - Sep 04 2020 14:28

Department Approval

Electronically Approved - Sep 05 2020 11:54

Associate Dean's Approval