COURSE OUTLINE

1. **Course:** ZOOL 571, Palaeobiology of Vertebrates - Winter 2021

   Lecture 01: MWF 09:00 - 09:50 - Online

   **Instructor**  
   Dr Jessica Theodor  
   jtheodor@ucalgary.ca

   **Email**  
   jtheodor@ucalgary.ca

   **Phone**  
   403 210-9819

   **Office**  
   BI 353

   **Hours**  
   F 10 am - 12 pm, or by appointment, Zoom link on D2L

**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.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

**The online component includes the lectures, and discussions. The first lecture will be delivered 2021-01-11, synchronously on Zoom (link on D2L).**

Some of the lecture material will be delivered as asynchronous videos on D2L along with reading assignments. 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.

The labs involve a discussion of readings of scientific papers which will be posted on D2L in advance, and discussions will take place weekly on Zoom during the scheduled lab period, during which you must be present and participate in discussion. If you cannot attend a discussion you may sit in in another section for that week, or confer with your colleagues on the D2L discussion board.

Class members will each be responsible for preparing and leading the discussion and exploration one week, which will be scheduled in week 1. It is the responsibility of each student read the assigned readings carefully before the discussion sessions, and to come prepared with questions to ask and discuss. There will be a discussion board available on D2L for further discussion, and office hours/appointments available with the instructor.

**Course Site:**

D2L: ZOOL 571 L01-(Winter 2021)-Palaeobiology of Vertebrates

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

2. **Requisites:**

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

   **Prerequisite(s):**
   3 units from Zoology 377, 379 or 403.

   **Antirequisite(s):**
   Credit for Zoology 571 and either Zoology 571.01 or 571.02 will not be allowed.

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:
<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Weighting %</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm examination 1</td>
<td>12.5%</td>
<td>Feb. 8, 2021</td>
</tr>
<tr>
<td>Midterm examination 2</td>
<td>12.5%</td>
<td>Mar. 15, 2021</td>
</tr>
<tr>
<td>Term paper</td>
<td>20%</td>
<td>Apr. 14, 2021</td>
</tr>
<tr>
<td>Peer reviews</td>
<td>10%</td>
<td>Apr 2, 2021</td>
</tr>
<tr>
<td>Leading Discussion</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Discussion Participation</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Final exam</td>
<td>25%</td>
<td>TBA</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Minimum % Required</th>
<th>A+</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95%</td>
<td>90%</td>
<td>85%</td>
<td>80%</td>
<td>75%</td>
<td>70%</td>
<td>67%</td>
<td>63%</td>
<td>60%</td>
<td>55%</td>
</tr>
</tbody>
</table>

This course will have a final exam that will be scheduled by the Registrar. **The Final Examination Schedule** will be published by the Registrar’s Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

The final exam will be administered using an on-line platform. Per section G.5 of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform where the additional time will be added to the beginning of the registrar scheduled exam. E.g. If an exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the start time of the exam. This means that if the exam has a 1 hour buffer time,

- the latest you should start an asynchronous exam would be 8 am in order to be able to submit the exam at 11am and have the full 3 hours.
- a synchronous exam would start at 8 am and finish at 11am.

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:

There are no scheduled out-of-class activities for this course.

6. Course Materials:

Required Textbook(s):


A reading list for the discussions will be posted on D2L.

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:

All exams will all be asynchronous, on D2L.
The midterm exams will be designed to take 60 minutes, and include 30 minutes buffer time, and will be available to you for 24 hrs on the day of the midterm:

- Midterm 1 will be available from 9 am on Monday Feb 8 through 9 am on Tuesday Feb 9, during which time you will have 90 minutes to write the exam.
- Midterm 2 will be available from 9 am on Monday March 15 through 9 am on Tuesday March 16, during which time you will have 90 minutes to write the exam.

The final exam is designed to take 120 minutes, and includes 60 minutes buffer time, and will be available to you for 24 hrs prior to the Registrar-scheduled end time of the exam.

For all exams, time will be adjusted for SAS students if needed and accommodations for students with issues (e.g. caregiving responsibilities, ability to secure an appropriate test-taking environment, different time zones) will be done on a case-by-case basis. Please contact Dr. Theodor at least 7 days prior to the exam date to discuss the matter.

IMPORTANT: It is the student’s responsibility to ensure they have adequate computer and internet access to write the exams. 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 starting to write 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 notes 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:

Students will not participate as subjects or researchers in human studies.

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 Services: 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 integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect
members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional Code of Conduct and promote academic integrity in upholding the University of Calgary’s reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor’s consent; submitting or presenting work as if it were the student’s own work; submitting or presenting work in one course which has also been submitted in another course without the instructor’s permission; borrowing experimental values from others without the instructor’s approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

**Student Handbook on Academic Integrity**
**Student Academic Misconduct Policy and Procedure**
**Research Integrity Policy**

Additional information is available on the [Student Success Centre Academic Integrity page](#).

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 Outcomes:
- Describe the major clades of vertebrates and their evolutionary relationships, including extinct forms
- Describe the stratigraphic and biogeographic record of major clades of vertebrates
- Describe the main hypotheses for major events in vertebrate evolution
- Critically read and research articles about vertebrate fossils; interpret and explain figures/tables from such articles
- Synthesize evidence and hypotheses from research articles to evaluate support for hypotheses
- Communicate effectively orally and in writing using appropriate terminology
Department Approval