

**Nats 1540, Section A, Theories of Dinosaur Extinction,  
Fall/Winter 2018-19, Lecture days: Wednesdays,  
Lecture Times: 11:30 a.m. to 2:30 p.m.  
Location: ACE 102**

**COURSE INSTRUCTOR AND CONTACT INFORMATION:**

Course Instructor: Robert Levine  
Contact Information: Phone: (905) 889-9361  
E-mail: [r\\_levine@rogers.com](mailto:r_levine@rogers.com)  
Office: by request only

Note 1: It is preferred that students send their e-mail from @my.yorku.ca e-mail and not others such as yahoo, hotmail, gmail, etc....

Note 2: Response time to student e-mails is about a day, while response time to messages left on my voice mail, is as soon as I access them.

**EXPANDED COURSE DESCRIPTION:**

This course will focus on attempting to introduce students first to the theories behind the creation of the solar system and first life on Earth and will then proceed to discuss the current theories used to explain rise of the dinosaurs and then their mass extinction which occurred at the end of the Cretaceous period (145 to 65 Millions years ago).

The first part of the course will begin with a discussion of the theory behind the creation of the solar system and will include a discussion of the role of science in helping to uncover a definitive answer to the topic at hand, including discussion of scientific method; the areas of science employed for this purpose such as physics, biology, geology, chemistry, meteorology/climatology and cosmology/astronomy, and the tools used to uncover evidence crucial in the investigation. Here, also, students will be introduced to many of the different time periods used to describe the Earth's development, including the Precambrian, Paleozoic, Mesozoic and Cenozoic and their various divisions which are used to describe periods of geological time in the Earth's history. The Introduction will continue with a discussion of how life may have begun on the Earth and then it will follow with a discussion of what an extinction event is and begin to point out some of the more notable extinction events known/suggested to have occurred during the 250 million years of geological time.

Part 2 of the course will discuss the topic of species followed by a discussion of the proliferation of dinosaur species, including some of the various kinds, towards the end of the Cretaceous and just before the mass extinction event. This will include a discussion of certain of the traits and characteristics of Dinosaurs.

Part 3 of the course will deal with a continued discussion of a mass or major extinction event, including an explanation of what is commonly called the KT boundary and its significance in relation to extinction theories that have been proffered as the more likely cause of the demise of the dinosaurs, providing a basis for an in depth discussion of the more predominant theories put forward as the extinction event: namely, volcanic (greenhouse gases) theory, flood theory, gravity theory, virus (disease) theory and meteorite impact theory. The discussions on Part 3 of the course will be continued in Part 4 of the course. During these discussions, the scientific and other evidence both in support of and contradicting each theory will be canvassed.

The fifth part of the course will look at the rise of mammals after the event which extinguished the dinosaurs, as well as what is commonly looked at as the role of humanity in the extinction of species, something commonly called the Sixth Extinction. It will continue with a review and summary of the course in preparation of the final examination or other culminating activity decided on.

Natural science courses are part of the general education requirements of York University. These courses aim to introduce students who are not majoring in the sciences to some of the most important aspects of scientific thinking, to the character of scientific judgments and to the place of science in society.

This natural science courses emphasizes that a proper appreciation of the content of science requires a consideration of the larger historical, philosophical, social and political contexts of science. It does not require a specific prior knowledge of mathematics and science beyond middle school.

### **COURSE LEARNING OUTCOMES:**

There are two components to the course. The first is the lectures, supplemented by the readings. Learning outcomes for each lecture will be posted when the course syllabus is posted. The second is the information obtained during tutorials. Learning outcomes for the tutorials will be dealt with by the individual TA conducting the tutorial.

### **EVALUATION:**

Grading is normally determined at the beginning of the term, often with the aid of the class. However, at this time **and subject to any change**, you may consider that it will be as follows:

- Tutorials are worth 16% of the grade;
- Test 1 worth 29% of the grade;
- Test 2 or an assignment valued at 30% of the grade;
- A final test/examination or other cumulative activity worth 25% of the grade or a final examination written in the **FALL** examination period;

**Major Assignment due date:** If made part of grading, the nature of the assignment and due date is:

Assignment : Value 30%: Critical Essay, Short Story, Project or Experiment, etc...  
**Due Date: Around the beginning to 2nd week of November, 2018.**

**COURSE MATERIALS/REQUIRED READINGS:**

Norman, David, **Dinosaurs, A Very Short Introduction, Oxford University Press, 2005**

**FALL 2018-19, Nats 1540, Section A, Coursekit.**

**COURSE CONTENT AND FORMAT:**

A syllabus setting out the weekly topics and readings will be posted on the course website under Course Syllabus within the first two weeks of class, once the final grading scheme has been determined.

**LECTURE & TUTORIAL SCHEDULE**

Type	Day	Start Time	Duration	Location
LECT 01	W	11:30	180	ACE 102
TUTR 01	W	9:30	60	VH 1020
TUTR 02	W	9:30	60	VH 2000
TUTR 03	W	9:30	60	VH 2016
TUTR 04	W	10:30	60	R N836
TUTR 05	W	10:30	60	VH 1016
TUTR 06	W	10:30	60	VH 2000
TUTR 07	W	14:30	60	VH 1018

TUTR 08	W	14:30	60	R N812
TUTR 09	W	14:30	60	R S102
TUTR 10	W	15:30	60	CC 108
TUTR 11	W	15:30	60	SC 224
TUTR 12	W	16:30	60	ACE 006
TUTR 13	W	16:30	60	ACW 009

### **MATH CONTENT:**

No more than Grade 10.

### **COURSE POLICIES (Ensure that you read this):**

#### **1. WHERE AN ASSIGNMENT OR TEST IS MARKED BY THE COURSE DIRECTOR:**

Questions and concerns should be addressed to the Course Director.

**2. WHERE AN ASSIGNMENT OR TEST IS MARKED BY A TA:** Questions and concerns should be addressed to the TA. A list of the email addresses of the TAs will be posted on the course website within the first two weeks of class.

**3. CONDUCT DURING ASSESSMENTS/TESTS:** All materials will be placed on the floor beneath the student and all writing materials, including pens, pencils, erasers, etc., will be removed from your pencil case and the pencil case will be put in the bag on the floor.

**4. LATE SUBMISSIONS AND LATE PENALTIES:** After the due date, three (3) marks per day will be deducted for each day that the assignment is overdue to a maximum of 5 days. An assignment not handed in within 5 days of the due date will not be accepted and a grade of zero will be given for it. For example if the submission or due date is June 1, but the assignment, essay or story is submitted on June 4, a total of 9 marks will be deducted from the overall mark for the assignment, with the result that if the mark for the assignment was 75 out of 100, the student's mark would be 66 out of 100. If the Assignment is not handed in by June 6<sup>th</sup>, it will not be accepted and the student will receive a mark of zero.

**5. NON COMPLIANCE WITH ASSIGNMENT REQUIREMENTS:** You must comply with *all* assignment requirements, otherwise you may be heavily penalized. For example, if double spacing is a requirement, then ensure that your paper is double spaced. Again if footnotes are required, then the paper must have footnotes, etc.... **Ten (10) marks will be deducted from the mark to be given the assignment for each non-compliance.**

**6. DEFERRALS OF ASSIGNMENTS, ESSAYS OR EXAMINATIONS:** Deferral of Exams/Tests/Assignments is totally within my discretion and a may not be granted. However, please be aware that I am as far away as the telephone or e-mail. Thus, in the event that you believe your circumstances are such as to require a deferral of an examination or assignment, please contact me as soon as you are aware of them or as soon as they occur. Even if you are hesitant to discuss your circumstances, call me anyways. The worst I can do is say "No" to a deferral request. **DO NOT ADVISE ME AFTER THE FACT OR DUE DATE, UNLESS WARRANTED BY THE CIRCUMSTANCES**

**7. REAPPRAISAL REQUESTS:** Where a student is not satisfied with a mark granted by a TA, on advising the Course Director, the Course Director will do a grade reappraisal. Where the student is still not satisfied with the Course Director's grade reappraisal, the student shall advise the Course Director and the Course Director shall make arrangements to have the subject matter of the grade reappraisal reappraised by another faculty member. **Note that reappraisal by another faculty member is final and binding on the student.**

### **COPYRIGHT AND INTELLECTUAL PROPERTY:**

The University has a strict policy about the copying or reproduction of copyrighted materials. This includes, but is not limited to, copying or reproducing lecture slides, recording lectures for non-personal use (e.g. uploading to websites), uploading or posting slides, assignments and other intellectual property which is not theirs to websites. **If you are not sure, check with the University's Copyright Department.**

### **UNIVERSITY POLICIES:**

#### **Important Sessional Dates:**

(Includes sessional start and end dates, drop deadlines, and withdrawal dates)

Fall Classes Begin: Classes start **SEPTEMBER 5, 2018.**

Fall Reading Day (no classes, University open): **OCTOBER 6-12, 2018.**

Fall Classes End: **December 4, 2018.**

Fall Study Day (no classes, University open): **December 5, 2018.**

Last date to add a course **without permission** of instructor: **September 18, 2018.**

Last date to add a course **with permission** of instructor: **October 2, 2018.**

Last date to drop a course without receiving a grade: **November 9, 2018.**

Course Withdrawal Period (withdraw from a course and receive a grade of “w” on transcript): **November 10, 2018 to December 4, 2018.**

### **Holidays and University Closures:**

Labour Day – University closed: **September 3, 2018.**

Thanksgiving Day – University closed: **October 8, 2018.**

### **Academic Honesty and Integrity:**

Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document. Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities.

Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

### **Academic Honesty and electronic devices during assessments (e.g. exams)**

- Internet capable and personal storage devices of all kinds must be turned off, including vibrate. These and any other unauthorized material must be placed under the student’s chair and should not be accessed at any point during the exam. Failure to comply with directive may be considered a break of academic honesty.
- See <http://registrar.yorku.ca/exams/tipsheet>

Please familiarize yourself with the full Senate Policy on Academic Honesty, found at <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

Please also familiarize yourself with the SPARK Academic Honesty tutorial found at <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

### **Academic Accommodation for Students with Disabilities**

York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Please familiarize yourself with the full Senate Policy on Academic Accommodations for Students with Disabilities, found at <http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/>

**Note: Students should submit accommodation letters from Counseling and Disability Services (CDS) to the course instructor within the first two weeks of the course or as soon as issued.**

Counseling and Disability Services - <http://cds.info.yorku.ca/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

**Note: A student registered with CDS, and choosing to write with Alternate Exams, is responsible for making the appropriate writing arrangements within the timeframes outlined by Alternate Exams.**

Alternate Exams - <http://altexams.students.yorku.ca/>

### **Religious Observance Accommodation**

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents.

<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/15/wo/kmHGekTpzKLX6XYKBXYc8M/0.3.4.62.0>

**Note: Students who will have an academic conflict as a result of a religious observance, at any point in the term, should make the instructor aware of such at least three weeks prior to the conflict.**

For conflicts occurring during an official examination period, please complete the Examination Accommodation Form available at [http://www.registrar.yorku.ca/pdf/exam\\_accommodation.pdf](http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf) and submit to your instructor at least three weeks prior to the final exam.

### **Student Conduct in Academic Situations**

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. A statement of the policy and procedures regarding disruptive and/or harassing behaviour by students in academic situations is available on the website of the University Secretariat (<http://secretariat.info.yorku.ca/>).

**DIVISION OF NATURAL SCIENCE RESOURCES:**

**NATS-AID:** Free peer tutoring for students enrolled in Natural Science Courses. See <http://natsci.info.yorku.ca/nats-aid/>

**M-AID in NATS (Math Aid):** Free math help for students enrolled in Natural Science Courses (TA tutors). See <http://natsci.info.yorku.ca/m-aid-in-nats/>

**OTHER RESOURCES:**

**Learning Commons:** The Learning Commons brings together key supports for your learning: writing, research, learning skills and career services. <http://www.library.yorku.ca/cms/learning-commons/>

**goSAFE:** goSAFE is a complimentary service provided to the York Community. At the Keele campus, goSAFE has two routes: North Route & South Route which will safely transport community members by vehicle from one specified hub to another on campus. goSAFE operates seven days a week, all year round, including University closures (with the exception at Glendon during the Christmas holiday closure).

Call the goSAFE office at 416-736-5454 or extension 55454 during hours of operation. Please give your name, location and destination. <http://www.yorku.ca/goSAFE/>

**Mental Health and Wellness at York University:** Outlines a variety of resources available to support mental health and wellness - <http://mhw.info.yorku.ca/resources/resources-at-york/students/>

**Good2Talk:** Post-Secondary Student 24 hour Helpline - <http://www.good2talk.ca/> 1-866-925-5454