Course Syllabus

PALEO 412 - Vertebrate Paleontology of Italy and the Surrounding Mediterranean Region

INSTRUCTOR:
Dr. Michael W. Caldwell

LECTURES:
May 1-24th, 2017; Monday & Wednesday, 0830hr-1130hr

LOCATION: Classroom Berretini no. 2

COURSE DESCRIPTION:
An examination of the fossil vertebrates of Italy and the surrounding Mediterranean. The course will focus on the last 250 million years of vertebrate evolution and the fossils and fossil localities as preserved in Italy and surrounding regions. Understanding of the vertebrate fossils of Italy will be covered through lectures, discussion, guest lectures from Italian paleontologists, and practical field trips to important fossil localities and local and national museums.

COURSE ASSESSMENT:
Midterm Examination - May 10, 0830hr-0930hr (30% final grade)
Final Examination – May 24th, 0930hr-1130hr (50% final grade)
Term Project – (20% of final grade – due May 24th, 0830hrs)

Midterm Examination – materials examined include lecture materials and assigned readings from May 1, 3, and 8.

Final Examination - materials examined include lecture materials and assigned readings from all lectures, with an emphasis on lecture materials from May 10-22.

Term Project – the term project is a written report, divided in two parts, drawing from information and experiences gained during and from the fieldtrip component of the course. The written Term Project is to be submitted at 0830hrs on the morning of May 24th, prior to the summary lecture and final exam.

> Part I (90% of Term Project Assessment) - Students will be guided during the first lecture on May 1, to select from a list of ten topics, their term project (e.g., ichthyosaurs from Monte San Giorgio and how the Italian Triassic ichthyosaur fauna has impacted our understanding of ichthyosaur evolution). The term project will depend on student attendance on the field trips in order to collect and understand original observations while in the field and at the localities. Over the

four weeks of the course and four field trips, students are expected to combine literature-based research on term project topic, with their fieldtrip experiences and original observations of fossils in museums and local geology at the localities visited.

Part II (10% of Term Project Assessment) - During the first lecture on May 1, the instructor will provide three copies of template pages/logbooks to be used to make notes and drawings of fossils, geology, etc., observed on each field trip. Students will submit these three logbooks at the end of their written Term Project.

ONE DAY FIELDTRIPS (Thursday, May 4, 11, 18th):

May 4 - Florence, Natural History Museum - dinosaurs, whales, etc.
http://www.msn.unifi.it/changelang-eng.html

May 11 - Museo Civico di Storia Naturale, Milan
http://www.comune.milano.it/dseserver/webcity/Documenti.nsf/webHomePage?OpenForm&settore=MCOI-6C5J9V_HP

May 18 – Cretaceous-Paleogene Boundary (with iridium anomaly), at Gubbio, Italy (https://en.wikipedia.org/wiki/Gubbio); Pleistocene fauna Museum, Pietrafitta. http://www.umbriatuscanyreview.com/4-kids/the-paleontological-museum-of-pietrafitta/

Fieldtrip Equipment

Students should expect to do some walking, potentially off of sidewalks and walking paths, and so should have running shoes, light walking shoes, etc. A small backpack, shoulder bag, etc., is advisable in order to carry a water bottle, light lunch/snacks, a camera, and notebook+pens/pencils. No special equipment is necessary, though it is possible that small fossils such a shells, etc., might be found and a small plastic bag or two might be a useful piece of equipment to keep on hand in your backpack. Weather could vary, and so a sun hat and rain gear/umbrella is also well advised.

COURSE OUTLINE:

MAY 1

Introduction to Italian and Mediterranean Geology
- Sedimentary rocks and plate tectonics

Introduction to Evolutionary Biology and Systematics
-Basics of evolution and phylogenetic reconstruction and taxonomy

Introduction to Vertebrate Paleontology – the last 570 Million Years
-vertebrate evolution and, what makes a vertebrate a vertebrate?

MAY 3

Vertebrate Fossils of Italy – A Survey

MAY 4 – ONE DAY FIELD TRIP, Florence

MAY 8

Triassic – Aquatic and Terrestrial Vertebrates

MAY 10 – *Midterm Examination,* 0830hr-0930hr

Triassic and Jurassic – Aquatic and Terrestrial Vertebrates

MAY 11 – ONE DAY FIELD TRIP, Museo Civico di Storia Naturale, Milano

– Guest Lecture: "Dinosaurs of Italy", Dr. Cristiano Dal Sasso (Museo Civico di Storia Naturale, Milano)

MAY 15

Jurassic and Cretaceous – Terrestrial Vertebrates

MAY 17

Jurassic and Cretaceous – Aquatic Vertebrates

– Guest Lecture: "Cretaceous Marine Reptiles of Italy", Dr. Alessandro Palci (University of Alberta & South Australian Museum, Adelaide)

– Guest Lecture: "Eocene Fishes and Palaeoecology of the Monte Bolca", Dr. Cesare Pappazzoni (Università di Modena e Reggio Emilia, Modena)

MAY 18 – ONE DAY FIELD TRIP, Gubbio (K-P Boundary) & Pietrafitta

MAY 22

The Cenozoic of Italy
-Monte Bolca and Eocene Fishes
-Fossil Cetaceans and the Evolution of Whales
-Miocene Terrestrial Mammals; Ice Age Mammals in Italy

MAY 24

Summary Lecture and hand in written assignments (0830hr-0930hr)
Final Examination, 0930hr-1130hr

To communicate student achievement, the University of Alberta uses a letter grading system with a 4- point scale of numerical equivalents. In accordance with the University guidelines, a student's final grade will be communicated as a letter grade and will be based on absolute achievement and relative performance in class. While instructors may use percentages in calculating grades, percentages are not part of the University's grading system. While percentages vary between Faculties, the School in Cortona uses the following conversion table. For a detailed explanation of the grading system, see section 23.4 in the University Calendar (www.registrar.ualberta.ca/calendar).

Letter	%	Pts.	Description
A+	95-100	4	Outstanding: Superior performance showing understanding and knowledge of the subject matter far exceeding expectations
A	90-94	4	Excellent. Superior performance showing comprehensive understanding of the subject matter
A-	86-89	3.7	Very good: Clearly above average performance with complete knowledge of the subject matter
B+	82-85	3.3	Very good
B	75-81	3	Good: Average performance with knowledge of the subject matter generally complete
B-	70-74	2.7	Good
C+	66-69	2.3	Satisfactory: Basic understanding of the subject matter
C	61-65	2	Satisfactory
C-	58-60	1.7	Satisfactory
D+	55-57	1.3	Minimal Pass: marginal performance
D	54-50	1	Minimal pass: Marginal performance, generally insufficient preparation for subsequent courses in the subject matter
F	0-49	0	Fail: Failure to meet course requirements.

Attendance Policy
Attendance is required in all courses. Students are expected to be in class on time. Lateness of more than fifteen minutes will be counted as half an absence.

Students are expected to treat with maturity attendance and punctuality regulations for all components of the course. No excuse for absence will exempt a student from the completion of all work in a course. The student assumes the responsibility for requesting assistance from faculty members for making up missed work.

N.B: The instructor reserves the right to modify meeting times when and if necessary for the educational benefit of the class or due to constraints imposed by unforeseen circumstances. Communication about such changes will be effected via group email messages or verbally in class prior to the date of the affected class. It is the individual student's responsibility to stay informed of any such changes.

Academic Honesty

The University of Alberta 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 Code of Student Behaviour (online at www.ualberta.ca/secretariat/appeals.htm) and avoid any behaviour which 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." (GFC 29 SEP 2003)

Amendments to the Code of Student Behaviour occur throughout the year. For the most recent version of the Code, visit the University Governance website at http://www.uofaweb.ualberta.ca/governance/StudentAppealsRegulations.cfm

NOTICE TO INSTRUCTORS REGARDING PLAGIARISM, CHEATING, MISREPRESENTATION OF FACTS AND PARTICIPATION IN AN OFFENCE

The U of A considers plagiarism, cheating, misrepresentation of facts and participation in an offence to be serious academic offences. Plagiarism, cheating, misrepresentation of facts and participation in an offence can be avoided if students are told what these offences are and if possible sanctions are made clear at the outset. Instructors should understand that the principles embodied in the Code are essential to our academic purpose. For this reason, instructors will be fully supported by Departments, Faculties and the University in their endeavours to rightfully discover and pursue cases of academic dishonesty in accordance with the Code.

At the beginning of each term, we ask you to review with your students the definitions of plagiarism and cheating. We are now also asking you to review with your students the definition of Misrepresentation of Facts and Participation in an Offence. Your co-operation and assistance in this matter are much appreciated.

30.3.2(1) Plagiarism

No Student shall submit the words, ideas, images or data of another person as the Student's own in any academic
writing, essay, thesis, project, assignment, presentation or poster in a course or program of study.

30.3.2(2) Cheating

30.3.2(2)a No Student shall in the course of an examination or other similar activity, obtain or attempt to obtain information from another Student or other unauthorized source, give or attempt to give information to another Student, or use, attempt to use or possess for the purposes of use any unauthorized material.

30.3.2(2)b No Student shall represent or attempt to represent him or herself as another or have or attempt to have himself or herself represented by another in the taking of an examination, preparation of a paper or other similar activity. See also misrepresentation in 30.3.6(4).

30.3.2(2)c No Student shall represent another's substantial editorial or compositional assistance on an assignment as the Student's own work.

30.3.2(2)d No Student shall submit in any course or program of study, without the written approval of the course Instructor, all or a substantial portion of any academic writing, essay, thesis, research report, project, assignment, presentation or poster for which credit has previously been obtained by the Student or which has been or is being submitted by the Student in another course or program of study in the University or elsewhere.

30.3.2(2)e No Student shall submit in any course or program of study any academic writing, essay, thesis, report, project, assignment, presentation or poster containing a statement of fact known by the Student to be false or a reference to a source the Student knows to contain fabricated claims (unless acknowledged by the Student), or a fabricated reference to a source.

30.3.6(4) Misrepresentation of Facts

No Student shall misrepresent pertinent facts to any member of the University community for the purpose of obtaining academic or other advantage. See also 30.3.2(2) b, c, d and e.

30.3.6(5) Participation in an Offence

No Student shall counsel or encourage or knowingly aid or assist, directly or indirectly, another person in the commission of any offence under this Code.

The Truth In Education (T*I*E) project is a campus wide educational campaign on Academic Honesty. This program was created to let people know the limits and consequences of inappropriate academic behaviour. There are helpful tips for Instructors and Students. Please take the time to visit the website at: http://www.ualberta.ca/tie

EXCERPTS FROM THE CODE OF STUDENT BEHAVIOUR FOR REVIEW WITH EACH CLASS AT THE BEGINNING OF EVERY TERM

Procedures for Instructors Regarding Plagiarism, Cheating, Misrepresentation of Facts and Participation in an Offence

The following procedures are drawn from the Code of Student Behaviour as approved by GFC and the Board of Governors. The guidelines summarize what instructors must do when they have reason to believe that a student has plagiarized, cheated, misrepresented facts or participated in an offence. If you have questions about these guidelines, or about the policies, please talk with the senior administrator in your Faculty responsible for dealing with student discipline — usually an Associate Dean or the Appeals Coordinator, University Governance (2-2655).

30.5.4 Procedures for Instructors in Cases Respecting Inappropriate Academic Behaviour

30.5.4(1) When an Instructor believes that a Student may have committed an Inappropriate Academic Behaviour Offence [30.3.2] or that there has been Misrepresentation of Facts [30.3.6(4)] or Participation in an Offence [30.3.6(5)] in cases respecting Inappropriate Academic Behaviour in the course that he or she instructs, the Instructor will meet with the Student. Before such a meeting, the Instructor shall inform the Student of the purpose of the meeting. In the event that the Student refuses or fails to meet with the Instructor within a reasonable period of time specified by the Instructor, the Instructor shall, taking into account the available information, decide whether a report to the Dean is warranted. (CLRC 30 MAY 2002) (EXEC 7 APR 2003) (CLRC 27 NOV 2003)

30.5.4(2) If the Instructor believes there has been a violation of the Code, the Instructor shall, as soon as possible after the event occurred, report that violation to the Dean and provide a written statement of the details of the case. The instructor may also include a recommendation for sanction. (CLRC 27 NOV 2003).

Possible Sanctions

One or more of the following sanctions given in 30.4.3 (2) and (3) of the Code are commonly used for plagiarism, cheating, participation in an offence, and misrepresentation of facts.

30.4.3(2) a.i A mark reduction or a mark of 0 on any term work or examination for reason ofInappropriate Academic Behaviour (GFC 24 SEP 2007);
30.4.3(2) a.ii Reduction of a grade in a course
30.4.3(2) a.iii A grade of F for a course.
30.4.3(2) a.iv A remark on a transcript of 8 (or 9 for failing graduate student grades), indicating Inappropriate Academic Behaviour in addition to 30.4.3(2)a.i, 30.4.3(2)a.ii, 30.4.3(2)a.iii

30.4.3(3) b Expulsion
30.4.3(3) c Suspension

The following sanctions may be used in rare cases.

30.4.3(3) e Suspension of a Degree already awarded
30.4.3(3) f Rescission of a Degree already awarded

30.6.1 Initiation of an Appeal

30.6.1(1) When a Student has been found to have committed an offence under the Code of Student Behaviour or an Applicant is found to have committed an offence under the Code of Applicant Behaviour (Section 11.8 of the GFC Policy Manual), whether or not that Student or Applicant has been given a sanction, the Student or Applicant may appeal that decision, except in the case of a decision of the Discipline Officer under

30.5.6(2)e.ii, which remains final and is not subject to appeal. In cases where a severe sanction has been recommended to the Discipline Officer, once the student receives the final decision of the Discipline Officer, the student can appeal the decisions of both Dean and the Discipline Officer at the same time. The written appeal must be presented to the Appeals Co- ordinator in the University Secretariat within 15 Working Days of the deemed receipt of the decision by the Student or Applicant. The finding that an offence has been committed, the sanction imposed or both may form the basis of appeal. The written appeal must also state the full grounds of appeal and be signed by the Appellant. The appeal shall be heard by the UAB.