GEOL 102, section 051
Plate Tectonics and Earth Evolution
Spring 2010

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Old Chinese Parable: “We are like insects that live but a day in the forest, so we cannot watch the trees grow. Yet, if we are observant we can find seeds, saplings, mature trees, and fallen logs, and through logic we can reconstruct the life pattern of a tree.”


Course Goals: Fasten your seatbelts and prepare yourselves for a journey into the past. You will go back to the time the Earth and Moon formed. You will visit ancient seas where life first formed. You will walk with dinosaurs during the Jurassic and with early humans in the periglacial steppes of Europe during the Pleistocene. The goal of this course is to give students an overview of the geologic history of our planet from the beginning when our planet was a red-hot boiling sea of molten rock, to the time that the ancients seas were teaming with diverse organisms, to the time that huge glaciers were covering the continents, through numerous mass extinctions, continent collisions, and mountain building episodes. We will study how the physical world assumed its present form and where we came from (from the evolutionary point of view). At the end of the course, the students will understand how geologists use the fossil and rock record to determine the Earth’s history. They will know how the climates of the past fluctuated from very cold, where glaciers formed, to very warm, more so than today. They will realize that organic evolution is marked with numerous mass extinctions. This knowledge will perhaps change their perception of our planet, life around us, and even the way they think of themselves.

Hunter College Policy on Academic Integrity: Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College.

Grading procedure: There will be four lecture examinations based on lecture and reading assignments. The lowest exam grade will be dropped. Each exam counts for 20 %, for a total of 60% of the student’s overall
grade. Makeup exams will not be given. In the event that one regular exam is missed (not the final) the missed exam will be the student’s lowest exam grade. All students must take the final exam. In any event, if missing an exam is unavoidable (i.e., for medical reasons), I must be notified prior to the exam, if possible.

There will be NO lab quizzes. The lab grade, which is 40% of the student’s total grade, will be based on attendance, class work, laboratory reports, Museum of Natural History visits, and virtual fieldtrips (via the internet). The university rules concerning grading will be strictly followed. Under no circumstances will a student be allowed to do "extra credit" to raise his/her grade.

**Attendance:** Lecture attendance is recommended (required for freshmen). In addition to information provided in the text, extra material and occasional pertinent films may be shown and discussed. Examinations will include questions on all of the above.

Lab attendance is **required!!!** A maximum of two absences is allowed without any consequences to the student’s grade.

**Lecture Topic Outline: **

Course Introduction  
Chapter 3- Diversity of Life  
Chapter 4- Environment of Life  
Chapter 6- Correlation and Dating + geologic time scale (p. 13-14).  

**EXAM 1**  
Chapter 11- The Achaean Eon of Precambrian Time  
Chapter 12- The Proterozoic Eon of Precambrian Time  
Chapter 13- The Early Paleozoic World  

**EXAM 2**  
Chapter 14- The Middle Paleozoic World  
Chapter 15- The Late Paleozoic World  
Chapter 16- The Early Mesozoic World  
Chapter 17- The Cretaceous World  

**EXAM 3**  
Chapter 18- The Paleogene World  
Chapter 19- The Neogene World  
Chapter 20- The Holocene World  

**EXAM 4 (Final)**

**This schedule may be altered slightly during the course of the semester. Exam dates will be established in lecture.**

**Hunter College Policy on Academic Dishonesty:** Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.
Incomplete Work in the Course: When a student, FOR VALID REASONS, does not complete the work assigned in a course (including the final exam, papers, etc.) and in the view of the instructor still has a reasonable chance to pass the course, the student shall be given the grade IN (incomplete). The student must explain the reason to the instructor or, in the absence of the instructor, to the department Chair and arrange a schedule for making up the missing course work. These steps must be taken as soon as possible and no later than the end of the second week of the following semester. The student shall then be given the opportunity to complete the course without penalty beyond previously established penalties for lateness. Only students averaging “C” or above are eligible to request an incomplete grade.