Fall 2008
Evolution of the Earth Lab
Kirkwood Community College - Iowa City Campus

INSTRUCTOR: John Dawson
OFFICE: Room 210, Iowa City Campus
PHONE: 887-3944.
E-MAIL: john.dawson@kirkwood.edu (always the best way to contact me)
OFFICE HOURS: MWF 10:00 – 11:00 am.
T 1:00-2:00 pm.
Th 9:00-10:00 am

I'm always willing to meet with students outside of class. That's what I'm here for! Feel free to drop by to see me or you can always arrange a time to meet with me.

LAB: 1:00 – 2:50 PM Wed, 1 credit hour.
ROOM: 158 Iowa City Campus
SYNONYM & SECTION NUMBER: 083764 PHS-181-ICF01

TEXT: There is no textbook for the lab. The website will have brief introductions to each laboratory exercise with links or references to additional required reading. I will keep you updated on what you need to read and when.

Course Materials and Updates are in CE6: http://www.kirkwood.edu/elearning/

COURSE DESCRIPTION:
This course goes along with the lecture (PHS180). We will take a hands-on approach (including field trips) to examine the principles, techniques and methods essential to the interpretation of the geological history of the Earth. In addition, we will spend time examining representative samples of life over the last 550 million years.

GENERAL LEARNING OBJECTIONS:
1) Learn about science:
    i) Gain knowledge of basic science principles and theories.
    ii) Develop a scientific vocabulary.
    iii) Become comfortable with science and dealing with science issues.
2) Practice scientific skills:
    i) Know how to identify key variables, develop models, and carry-out solutions
    ii) Practice logical thinking skills.
    iii) Use scientific reasoning to evaluate real world issues.
3) Practice college level study skills:
    i) Be able to take usable notes from a lecture setting.
    ii) Know how you best learn new material, and use that to your advantage.
    iii) Identify your weak areas, and develop strategies to strengthen them.
4) Develop a "working" knowledge of how Earth systems work, and how we affect our environment.
5) Practice gathering and recording observations of the natural environment.
6) Gain an appreciation for how geologists gather and interpret geologic and environmental data.
7) Practice basic map reading and map construction skills.

GENERAL ATTENDANCE POLICY:
I expect you to attend every lab. In my experience, poor attendance generally means poor performance. If you do miss lab, then you should review the make-up policies below to see if you can make-up the assignment, project, field trip, or quiz.

GENERAL LEARNING ENVIRONMENT EXPECTATIONS:
Please be on time and plan on being in class the entire time. If you are late for a quiz, I will not allow you any additional time to complete it. I WILL RANDOMLY CALL ON STUDENTS – be prepared to answer my questions. Please respect those students sitting around you in class – WHEN I AM LECTURING, YOU SHOULD NOT BE TALKING. I will dismiss students from class that are disruptive. Cell phones and other personal electronic devices must be turned off. No food or drink in the environmental science lab. Do not turn on the computers in the lab, unless I have given you permission. You **must do the reading assignments prior** to each lab. Every week you will spend two hours in lab and should expect to spend an additional two-four hours outside of class completing the lab exercise, studying, or reading.

COURSE EVALUATION:
Course evaluation will be based on a lab notebook, quizzes, and a final lab project. +/- grading will be used. Final grades will be based on the total points obtained at the end of the semester out of the total available points. Grades **will not be** curved in this course.

QUIZZES:
Quizzes will consist of multiple choice, short answer, and identification of rocks, fossils, etc. There will be several quizzes during the semester. Dates for the quizzes are indicated on the Lab Schedule.

POP QUIZZES:
There will be an occasional small pop quiz over the reading assignment. These are designed to remind you that you should be doing the reading before coming to class.

LAB NOTEBOOK GRADING:
The Lab Notebook for this course will be a way to organize all your lab material. It should be in a three ring binder that is separate from your notebook for Evolution of the Earth lecture. I will collect your notebook for **review on September 24 and November 12**. I will provide more details about the lab notebook in class, but it will be graded based on having the following items:

- Good organization within each section.
- Section with all lab handouts including lab outlines and lab readings posted online.
- Section with all lab assignments (these need to be neat, organized, and with each question attempted to the best of your ability).
- Section with all graded material (quizzes).

BRIEF PROJECT DESCRIPTION:
For the project in this class, you will work in a small group and put together the geologic history of a specific area. This project is meant to be a slightly longer and more intense group assignment. You will be graded on your project based on the final report, brief presentation, and participation in project. I will give each student an opportunity to give feedback on the effort of the others in his/her group.

MAKE-UP POLICY:

Quizzes: You will be able to make-up one missed quiz during the semester for reasonable and verifiable excuses. I will not allow a make-up for any unreasonable excuse. If a student needs to make-up more than one missed quiz, the instructor reserves the right to deny any requests. Make-ups must be arranged with the instructor and must be at a time that fits into the instructor's schedule. There will be **no make-ups** for **pop quizzes**.

Labs: All of your lab exercises must be presented in the lab notebook. I will not allow a make-up for a missed lab. In addition, I will not accept labs from you when you didn't attend the lab session. I will allow two labs to be missed during the semester without penalty to your lab notebook score. Since this is a lab course, the concepts in the labs build on earlier lab

exercises and missing a lab will make it very difficult to keep up. Please make every effort not to miss a lab.

Project: Failure to participate or if participation is below what is expected, then your grade for the project will be adjusted accordingly. A late project will be deducted 5 points for every day it is late. If a student misses the first week of the project, then the instructor might offer an alternative assignment for a reasonable explanation for absence from class.

GRADE BREAKDOWN:

Quizzes: 25 pts each (100 pts total)
Pop Quizzes: ~ 50 points
Lab Notebook: 100 points (50 points for each review of lab notebook)
Final Project: 100 pts
Total Points: ~ 350pts

GRADE DISTRIBUTION:

A = 100-93%, A- = 92-90%; B+ = 89-87%; B = 86-83%; B- = 82-80%; C+ = 79-77%; C = 76-73%; C- = 72-70%; D+ = 69-67%; D = 66-63%; D- = 62-60%; F = < 60%.

****** If you need help figuring out your grade during the semester, please ask and I will help. I will give you grade updates at the times I grade your lab notebooks.***

KIRKWOOD'S CLASS ATTENDANCE POLICY AND COLLEGE SPONSORED ACTIVITIES:

Class Attendance Policy: Learning is central to our work at Kirkwood Community College. Faculty design educational experiences to facilitate learning and students learn by engaging in those experiences. Attendance and engagement in all scheduled classes is regarded as integral to learning and is expected of all students.

Kirkwood faculty members identify expectations for learning and attendance in their course syllabi. Students are accountable for the learning outcomes for each session, including those sessions that have been missed. Assessments of learning that occur during an absence may or may not be made up, depending on the policies of the instructor and the nature of the absence. Absences that result from participation in college sponsored activities* will be accommodated, subject to the guidelines listed below. For all other absences, authorization of an excuse is the province of the individual faculty member and subject to the standard appeal process.

College Sponsored Activities:

Students involved in activities where they are required to represent the college, i.e. college-sponsored activities, must give written notice to the faculty member at least one week in advance of the absence unless last minute schedule changes make this notice impossible. If regular season athletic schedules have been developed, student participants must present written notice of anticipated absences within the first week of the semester. Failure to provide timely written notice may result in loss of this opportunity.

Faculty shall accord students the opportunity to independently make up course work or work of equal value, for the day(s) the event was scheduled and to take a scheduled exam at an alternate time. The faculty member shall determine alternate exam times and due dates for missed coursework. These assigned dates may be prior to the date of the absence.

Organizers (coaches, faculty and staff) of college sponsored activities shall 1) assist students in planning class schedules to minimize the number of absences; 2) inform students of their responsibilities as described above; and 3) provide written communications to faculty announcing and verifying the need for student class absences. Written notices should be provided at the beginning of the semester if the schedule is known, or as soon as possible after the need for a student absence is determined.

* College sponsored activities (excluding practices) include such events as athletic competitions, student academic competitions and conferences, musical and drama performances, and class field trips. Questions

on whether an activity is a college-sponsored event for purposes of this policy should be directed to the Vice-President of Instruction. If anticipated absences for a semester appear to be extraordinarily numerous or difficult to accommodate, a faculty member may appeal the need for the full accommodation to the VP of Instruction.

KIRKWOOD'S VIEW ON A PRODUCTIVE CLASSROOM LEARNING ENVIRONMENT:
We believe that the best learning takes place in an environment where faculty and students exhibit trust and mutual respect.

Students promote trust by preparing honest and thoughtful work, and by expecting evaluation based on performance. Faculty promote trust by setting clear guidelines for assignments and evaluations, honest feedback, and by assigning bias-free grades.

Students show respect by being prepared and attending class on time, by paying attention, contributing to discussions, listening respectfully to others' points of view, meeting deadlines, and by striving for their best performance. Faculty show respect by their timeliness and preparedness, by taking students seriously, by valuing their goals and aspirations, and by providing honest feedback.

In a productive learning environment, faculty and students work cooperatively, recognize and respect differences, model the values of character and citizenship, and become lifelong learners.

PLAGIARISM POLICY: According to Webster, to plagiarize is to "steal or pass off the ideas or words of another as one's own… to use created productions without crediting the source… to commit literary theft… to present as new and original an idea or product derived from an existing source."

Kirkwood Students are responsible for authenticating any assignment submitted to an instructor. If asked, you must be able to produce proof that the assignment you submit is actually your own work. Therefore, we recommend that you engage in a verifiable working process on assignments. Keep copies of all drafts of your work, make photocopies of research materials, write summaries of research materials, hang onto Writing Center receipts, keep logs or journals of your work on assignments or papers, learn to save drafts or versions of assignments under individual file names on computer or diskette, etc.

The inability to authenticate your work, should an instructor request it, is a sufficient ground for failing the assignment.

In addition to requiring a student to authenticate his/her work, Kirkwood Community College instructors may employ various other means of ascertaining authenticity – such as engaging in Internet searches, creating quizzes based on student work, requiring students to explain their work and/or process orally, etc.

AMERICANS WITH DISABILITIES ACT: Students with disabilities who need accommodations to achieve course objectives should file an accommodation application with Student Services and provide a written plan of accommodation to your instructor prior to the accommodation being provided.

SCHOOL CANCELLATIONS: When Kirkwood classes are cancelled or delayed due to inclement weather, all classes at all locations are cancelled. The announcements will indicate whether the cancellations apply to day or evening classes. The following broadcasters will be notified:

KZIA-FM Z102.9 (Cedar Rapids)
WMT-AM 600
KFMW-FM 107.9 (Waterloo)
KCCK-FM 88.3
KXIC-AM 800 (Iowa City)
KGAN-TV2
KCJJ-AM 1630 (Iowa City)
KCRG-TV9
KSUI-FM 91.7 (Iowa City)
KWWL-TV7
KUNI-FM 90.9 (Cedar Falls)
KHAK-FM 98.1
KDAT-FM 104.5
KCII (Washington)
KRNA-FM 94.1 (Iowa City)
KMRY-AM 1450
KOKZ-FM 105.7 (Waterloo)

IMPORTANT DATES:

- Quizzes: September 3, September 24, October 15, November 12.
- Lab Notebook Due: September 24 and November 12.
- Field Trips: October 8, October 29.
- November 11: Last day to drop a class from Kirkwood.
- December 5: Last day for complete withdrawal of classes from Kirkwood.

EVOLUTION OF THE EARTH LABORATORY SCHEDULE

Lab Week	List of Topics for Evolution of Earth Lab
August 20	Overview of Life
August 27	Introduction to Rocks, Minerals, and Rock Cycle
September 3	Sedimentary Rocks / **QUIZ # 1**
September 10	Sedimentary Environments
September 17	Geologic Time / Stratigraphy
September 24	Fossil Preservation and Taphonomy / **QUIZ # 2**
October 1	Evolution
*** October 8	**Field Trip # 1:** University of Iowa Campus
October 15	Evolutionary Faunas – Part I / **QUIZ # 3**
October 22	Evolutionary Faunas – Part II
*** October 29	**Field Trip # 2:** Geologic History of the Devonian Fossil Gorge
November 5	Structural Geology / Plate Tectonics
November 12	Geologic Maps / **QUIZ # 4**
November 19	**Project:** Reconstructing the Geologic History of a Region
November 26	***No Class – College Holiday***
December 5	**Project:** Reconstructing the Geologic History of a Region **Note:** At the end of this lab period you should be prepared to give a brief oral report.

*** We have a couple of scheduled field trips in this class. This means we won't be meeting in the lab room during that week.