Geology 200
Spring 2010

Geological Investigations of the National Parks

Syllabus

In 1872, Congress established Yellowstone National Park to preserve the scenic wonders of that section of Wyoming, Montana, and Idaho. Since 1872, many other parks have been added to the National Park system along with numerous National Monuments, National Lakeshores, National Seashores, National Rivers, etc. These scenic locations are interesting to study geologically because most of them are spectacular examples of geological processes, present and past. Our exploration of the geology of these parks also will help us all learn more about the regional geology of North America.

This course will be divided into four sections. The first unit in the course is about the canyonlands of the American southwest. We will use these parks to review some of the ideas from Geology 101 and learn some new concepts. The second unit is a little closer to home; the growth of the Pacific Northwest including major parts of Alaska and volcanism. The third unit is on the parks of the Rocky Mountain region and southern California. As a class, you will determine the subjects of the fourth unit. This last unit will be described in more detail later.

Course Units

1. Exams

During the quarter there will be three unit exams. At the end of the quarter I will average the two best grades on these exams, so you get to drop one exam grade. There will be no make-ups on the exams. The exams will cover both the material discussed in class and the assigned readings. The dates for the exams are noted on the tentative course schedule. The format of the exams will be discussed in class. The material during the fourth unit of the course will be covered on the final exam.

2. Final Exam

At the end of the quarter there will be a comprehensive final exam. The format of this exam will be described in more detail during class.

3. Notebook

As we study the national parks this quarter you will accumulate class notes, assignments, and readings into a notebook that you will submit at the time of the three unit exams. Most of the items that you will put into the notebook will come from class lectures, group discussions, homework, and readings from the text.

4. Project

The subject of this project is the geology of a national park or national monument not discussed during the first three units of the class. Your project will have two parts:

a) You will construct a poster for a class presentation during the class sessions from June 3- June 8. The goal of the poster will be to explain and illustrate some aspect of the national park or national monument you have chosen to study. If possible you should investigate some aspect of the geology of the park or monument rather than an overall history. I will provide more details on the posters in class.

b) You will also prepare a list of multiple choice questions about your park and your . Some of these questions will be used on the Final Exam. These questions will be duplicated and distributed to the other students in the class.

The criteria for evaluation of your project will involve both the quality of the geological information presented as well as the quality of the poster and the quality of the exam questions you create. We will discuss the format and expectations of the project further in class.
Grading

Unit Exams  45%
Final Exam  25%
Notebook  10%
Project  20%

My grading philosophy is that if you score above 90%, your grade is in the "A" category (3.5-4.0) and if your score is between 80% and 90% your grade is in the "B" category (2.5-3.5), etc. However, if I give a difficult exam and the average score is low, then I may curve the grades so that the average grade is not below 2.0.

The exams and project will be graded on the decimal scale of .1-4.0 (.7 is passing). The notebook grades will be a percentage of the total possible points in each section of the notebook (90%=3.5; 80%=2.5; 70%=1.5, etc.).

At the end of the quarter the grades from the exams, the project and the notebook will be averaged according to the weighting factors shown above to determine the final grade. According to the college grading policy, all grades at the end of the quarter will be decimal grades between 0.0-4.0. If you have questions about your grade, please let me know.

TEXT: Harris and Tuttle, Geology of the National Parks, 6th edition,

Web Site:
There is a course web site at:

http://www.instruction.greenriver.edu/filson

This web site will have the syllabus and study guides for the exams. If you misplace your copy you can see me for another copy or go to the web site. There are also links to other web sites that will be helpful as you complete your project.

Tentative Course Schedule

This is my best guess as to our schedule. If we vary significantly from this schedule I will let you know in class and I will publish a new schedule for you.

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<th>Mar 31</th>
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<td>Zion/ Project discussion</td>
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<td>Capitol Reef Ch. 4</td>
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<td>May 10 Review</td>
<td>Ch. 30</td>
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<td>Hawaii Ch. 40</td>
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<td>May 19 Grand Teton Ch. 44</td>
<td>May 20 Grand Teton</td>
<td>May 21 Glacier/Waterton Ch. 26</td>
<td>May 24 Yosemite Ch. 28</td>
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Content Specific Learning Outcomes: (Student Achievement during the course)

This course has five primary goals:

1. You will be asked to identify and discuss the significant geological processes in the history of the National Parks we discuss during class.

2. You will solve geological questions posed in exams and during class.

3. You will be able to correctly list the Geological Time Scale and locate the national parks we study on a map of North America.

4. You will practice appropriate geological research skills and use standard geological writing format in the preparation of your project paper.

5. You will develop skills to work effectively with your classmates in solving geological problems.

Campus-wide Learning Outcomes

Critical Thinking Ability:

You will be asked to examine your geological thinking by:

1) explaining your ideas to open-ended questions (in some cases I ask that students defend their choice of more specific answers)

2) observing geological features and applying them to questions posed in class.

3) applying information from lecture to problems presented during class.

4) using geological data to solve geological problems related to the regional geology of the western National Parks.

This outcome will be demonstrated by student responses to answers on examinations, in-class work and the class project.

Responsibilities:

- I expect you to be present in class each day. If you miss more than ten days of class, you may receive a grade of 0.0.

- I expect that you will treat all the students and me in the class with respect (Turn off cell phones while in class. No Texting or audible pagers unless you check with me before class and it is an emergency). No laptop computers may be used during class unless you have specific authorization through the Office of Disability Services.

- I expect that you will be prepared for class each day and that you will have read the assigned material for that day.

- I expect that you will not talk to other classmates during class, unless I have divided you into groups for the purpose of discussion.

- I expect that you will be ready to start class, at the beginning of the class time and will remain in the class until the end of the class period. (We all get caught in traffic or something else happens. Try to
not make a habit of being late. Come to class even if you are late; however, stopping for coffee is not a valid reason for being late!)

- I expect that you will check your student email account on a regular basis for information from this course. If you have not used your student email account, go to: 
  [http://www.greenriver.edu/studentemail/](http://www.greenriver.edu/studentemail/)

- You will be expected to be ready to ask questions or supply answers to questions in class. Putting your head on the desk is not acceptable behavior and I will assume that you would like to answer a question!

**Characteristics of an "A" Student:**

Sometimes when a student is not doing as well in this course as they would like I hear the question, “What do I have to do to get an A?” There is no easy answer to that question, but I hope the discussion below will help you.

Although excellent students are not all the same, the following are characteristics that I have noted which are almost always present in "A" students:

- they attend class every day. Absence rates among “A” students are usually very low.

- they understand the material rather than relying upon memorization for the test. They are able to apply ideas learned in other parts of the class (and other classes) to the issues they are studying.

- they are prepared for class. They have read the assigned material before the class session and are ready to ask questions and discuss the material. Their work is on time and neat.

- they have the attitude that the primary responsibility for their learning is their own, not the instructor's. These students will do well in spite of the particular instructor in a class.

- they work well in groups. They have good communication skills and are willing to listen to the ideas of others.

- they study actively. They do not just sit and read the text. They use the study guides provided. They outline, take notes, and solve problems as they read. This helps their retention and understanding of the material.

**Policy on Late Papers:**

**Notebooks:** Notebooks are due at the time you take an exam. You will be permitted one late notebook submission without penalty, but subsequent notebooks will be graded at 50%.

**Project:** The posters are due on June 3. The exam questions are due on June 1. Late posters may assessed a penalty of up to 10% of the grade for each school day the poster is late. Late exam questions will receive stern looks from your classmates.

**Policy on Cheating:**

In this course you will be working in groups and by yourself. Individual assignments, such as most of the homework may be discussed as a group, but must be written individually. Do not give your paper to someone else! Unless otherwise told, assume that the exams are closed book, closed notes, and obviously are to be your own work. If individuals are found to be cheating, their names will be given to the Dean of Instruction for further action that may range from no credit in the exam/assignment to removal from the college. The project papers must be properly referenced and plagiarism is not permitted.
Policy on Visitors in Class:
Faculty members at GRCC have been directed to not permit children of students to attend classes. As a parent, I understand that sometimes it is very difficult to make daycare arrangements. However, the policy from our administration is very clear and I will have to enforce the rules. If a person is over 16 and would like to attend the class, please see me several days ahead of the class sessions to obtain permission.

Special Needs
If you believe you qualify for course adaptations or special accommodations under the Americans With Disabilities Act, it is your responsibility to contact the Disabled Students Services Coordinator in the LSC and provide the appropriate documentation. If you have already documented a disability or other condition that would qualify you for special accommodations, or if you have emergency medical information or special needs I should know about, please notify me during the first week of class. You can reach me by phone at 253-833-9111, extension 4324. Or, you can schedule an office appointment to meet me in SMT 235 during my posted office hours or at another mutually determined time. If this location is not convenient for you, we will schedule an alternative place for the meeting. If you use an alternative medium for communicating, let me know well in advance of the meeting (at least one week) so that appropriate accommodations can be arranged.

A FINAL NOTE

I have had the good fortune to visit all of the national parks we will discuss in class. If you have personal experiences in these parks, please feel free to contribute your thoughts and observations from your visits! I do prefer a class that is more discussion-based versus lecture-based, so please feel free to ask questions and contribute to the class.

Bob Filson
Office hours: 7:30-9 MF, 11-12 TTh, and by appointment
SC 113
253-833-9111 (ext. 4324)
Toll free numbers from Tacoma (253-942-0180) and Seattle (206-464-6133)
My campus email address is bfilson@greenriver.edu
My home phone 253-833-8426 (please do not call after 10 PM--Thanks!)