OUTLINE/SYLLABUS

- **8/31/09 IN CLASS MEETING – ROOM 705.** Before this date open your own account on Blackboard, under “distance courses and Blackboard” on the Cabrillo home page. Check in on Blackboard and go to “Start Here”.

**PART ONE – Weathering and Erosion on Flat Lying Rocks**
- The Grand Canyon and Colorado Plateau - Weathering and Erosion, Sedimentary Rocks
- The Grand Canyon - 1.8 Billion Years of History
- Zion N. P. – Geologic Features and Geologic History, Weathering
- Bryce Canyon - Geologic Features and Geologic History – Cedar Breaks N.M.
- Capital Reef N.P. – Geographic Setting, Features & History – How Mass Wasting Operates in Arid Regions
- Canyonlands N.P. and Arches N.P. - Geologic Features and History – How Needles, Arches and Grabens Form
- Mesa Verde and Petrified Forest N.P. - Geologic Features and History – Silica and How Wood Turns to Stone

**MIDTERM ONE - 10/5/09**

**PART TWO – Volcanic Activity and Features**
- Cascade Volcanoes and Mt. Ranier N.P. - Geologic Features and History – Mass Wasting, Geologic Hazards and Glaciers
- Crater Lake N.P. - Geologic Features and History – Calderas and Types of Volcanoes
- Lassen Volcanic N.P. - Geologic Features and History – Recent Eruptions
- Hawaii Volcanoes N.P. – Geology of the Archipelago – Prediction, Faults and Landslides
- Yellowstone N.P. - Geologic Features and History – Hydrothermal Features and Calderas

**PART THREE – Landscapes Shaped by Glaciation**
- Yosemite N.P. - Geologic Features and History – Granitic Emplacement, Glacial Features, Jointing and Waterfalls
- Rocky Mountain N.P. - Geologic Features and History – Mountain Building and Deformation, Glaciation and Mass Wasting
- Denali N.P. and Alaskan Geology – Geologic Features and History - Fault Systems, Exotic Terranes and Glacial Features

**MIDTERM TWO – 11/9/09**

**PART FOUR – Formation of Reefs and Caves**
- Carlsbad Caverns N.P. - Geologic Features and History – Solution Caverns and Caves, Groundwater
- Guadalupe N.P. – Geologic Features and History - Capitan Reef (Shallow Seas)
- Mammoth Cave N.P. - Geologic Features and History - Solution Caverns and Caves

**PART FIVE – Mountain Systems and Metamorphism**
- Great Smoky Mountains and Shenandoah N.P. - Geologic Features and History – Folds and Faults – Water and Wind Gaps
- Death Valley N.P. - Geologic Features and History – Basin and Range Province, Pleistocene Lake Manly, Playas, Dunes and Alluvial Fans
- Joshua Tree, Sequoia and Kings Canyon N.P. - Geologic Features and History – Rain Shadows and Deserts
- Channel Islands N.P. - Geologic Features and History – Continental Borderland

**FINAL EXAM – December 14-19, 2009**
Required Text: Geology of National Parks by Harris, Tuttle and Tuttle, 6th Ed. Available in the bookstore. “Other” reading will be required and listed on the class web site.

Course Description: Geology of National Parks introduces the geologic history and features of some of our National Parks. The theory of Plate Tectonics, the Rock Cycle, weathering and erosion, mountain building and deformation, glaciation and other phenomena are addressed within the context of the geologic features found in our National Parks.

Assessment: Progress will be monitored through the class website and in two different ways. 1) Participation and promptness, and 2) numerically using a 450 point system: Homework/Quizzes = 80 points, Two Midterms = 100 points each (200 total) and Final Exam = 120 points. The Midterms and Final will cover both lecture, book and “other” material. In addition a semester long research report will be completed detailing some aspect of one of the National Parks NOT talked about in class (50 points).

Fifteen points may be earned and applied to either or both of your midterm scores by completing a community “activity”. Each activity is worth 15 points and you may earn a maximum of 30 points. That works out to about 7% of the total points available in the course. A community activity may be: attending an outside lecture, or a beach clean-up, monitoring streams, planting native vegetation, volunteering for some local agency involved in Earth-science related activities, etc. Any community activity must be completed by December 1st, and a one-page report will be turned in detailing the event(s). The report(s) are due, at the latest, one week before the last lecture. The activity must be OK’d by the instructor first.

No make-ups will be given on quizzes or exams. It is the students' responsibility to be aware of his/her progress in this course. Credit / No Credit is an option. The deadline for this decision will be announced in class and the student must turn in a hand written note with such intentions. You are responsible for knowing information in this syllabus.

In class attendance: Attendance is required at all class meetings. Please let me know in advance by calling my cell (831) 419-0426 if you cannot attend (so you won’t lose character points!). Please arrive on time to the meetings!

CONTENT SUBJECT TO CHANGE - wvb