

INSTRUCTOR: CHUCK PATTERSON, Ph.D.

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TEXT: ROADSIDE GEOLOGY OF COLORADO, CHRONIC

ADDITIONAL TEXTS:

PRAIRIE, PEAK, AND PLATEAU, CHRONIC

MESSAGES IN STONE, MATTHEWS 2<sup>nd</sup> Ed

PHYSICAL GEOLOGY, PLUMMER, MCGEARY, AND CARLSON, ANY RECENT EDITION (OR EQUIVALENT)

CLASS MEETS FRIDAY EVENINGS FOR LECTURE FROM 5-10, AND ALL DAY FIELD TRIP SATURDAYS 8-5:30 (CARPOOL) FOR 3 WEEKENDS BEGINNING 7/12, ENDING 7/27.

GRADES BASED ON ATTENDANCE, PARTICIPATION, AND COMPLETION OF IN-CLASS WORK, TAKE-HOME ESSAYS, A JOURNAL, (ILLUSTRATED NOTES FROM THE CLASS AND FIELD TRIPS) AND A PAPER OR POSTER PROJECT ON A TOPIC OF INTEREST.

#### SYLLABUS

- 6/13 INTRO TO ROCKS, MINERALS, GEOLOGIC TIME, GEOLOGIC MAPS, AND THE GENERAL GEOLOGIC STRUCTURE OF COLORADO
- 6/14 GENESSEE AND LOOKOUT MOUNTAIN AREAS, GOLDEN GATE CANYON AND WHITE RANCH PARK AREA, TABLE MOUNTAIN LAVA FLOWS, CSM MUSEUM
- 6/20 PALEOZOIC AND MESOZOIC STRATIGRAPHY AND EVENTS IN COLORADO
- 6/21 RED ROCKS PARK, DINOSAUR RIDGE, I-70 ROAD CUT, ROONEY ROAD, US 285 ROADCUT, GREEN MOUNTAIN, COAL CREEK CANYON, ELDORADO CANYON, CU MUSEUM, 6-MILE FOLD, LYONS STONE QUARRIES
- 6/27 CENOZOIC HISTORY AND EVENTS, UPLIFT OF ROCKIES, COLORADO PLATEAU, RIO GRANDE RIFT, MINING GEOLOGY AND POLLUTION, GLACIATION
- 6/28 BERTHOUD PASS, HENDERSON MINE, SILVERPLUME, IDAHO SPRINGS, ARGO TUNNEL "OH MY GOD" (VIRGINIA CANYON) ROAD TO CENTRAL CITY, NEDERLAND/CARIBOU/WARD/JAMESTOWN

TURN IN WORK AND FINAL PROJECTS BY 7/6, Instructional Services desk.  
(Please do not email. I require hard copy)

Grade determined by completeness and scholarship displayed in:

1. Homework essays and In-class work
2. Class notes
3. Field trip journal
4. Project (3-5 page paper, poster, or Power Point presentation) on subject of your choice related to class materials. Please clear with me first so I can advise)

## 5. Attendance and participation

GEY 205                      Take-home Essays (due 6/20)

Name \_\_\_\_\_

Please answer these questions by next Friday class period. (use extra paper if you need)

### 1. Definitions

Mineral

Rock forming mineral

Igneous rock

Sedimentary rock

Metamorphic rock

Rock/Rock Cycle

(Be sure to include typical examples and names of each rock type as well as major categories within each type)

2. Make a geologic cross-section along I-70 from Lakewood to Dillon showing the distribution and structure of these rocks.

3. Make a Geologic Time chart showing Eras and Periods and list the major events in the history of Earth and Life that occurred in each. Mark where Colorado's rocks, episodes of mountain building, seaway incursion, and continental drift events are placed in time on the chart.

## EQUIPMENT LIST

PLEASE COME PREPARED TO BE OUTDOORS FOR MOST OF THE DAY.

HAT

SUNSCREEN

RAIN/WIND JACKET

INSULATING LAYER

1 QT CANTEEN OF WATER

STURDY SHOES (WE WILL POTENTIALLY WALK UP TO A MILE)

CAR POOL: IN CLASS I WILL SOLICIT DRIVERS FOR CARPOOLING. PASSENGERS SHOULD BE PREPARED TO PAY GAS COSTS FOR THE DRIVER OF 0.10 PER MILE EACH TO MAKE IT WORTH IT FOR THE DRIVER

Disclaimer: This syllabus is as accurate as possible, but unforeseen events, such as weather, may cause me to shift topics and events as necessary.

Students with disabilities will be accommodated as required by instructions from the Office of Disability Services.

Please realize that hiking, sometimes strenuous at high altitudes, is involved on the Saturday field trips. If you are unable to hike, I can arrange alternative activities for you.

CP