## - COURSE SYLLABUS -

# GEL 133 PHYSICAL GEOLOGY

(3 Semester Credit Hours)

Professor: Dr. Brian Cooper (SHSU Tel: 41566) (e-mail: bjcooper@shsu.edu)



#### GEOLOGY 133 - PHYSICAL GEOLOGY

Course Syllabus - Spring, 2008

| Brian Cooper                                     |
|--|
| 300C Lee Drain Building                          |
| 9 -9:50 MWF, 10 - 10:50 TuTh, or by appointment. |
| 294-1566 e-mail: bjcooper@shsu.edu               |
|  |

- TEXT: Lutgens/Tarbuck, Essentials of Geology, 9<sup>th</sup> ed.
- ATTENDANCE: Attendance is required. There are NO excused absences. No visitors. Each absence in excess of 6 absences costs 5 points off the final grade. Three tardies are equivalent to one absence. If you miss a lecture, it is your responsibility to obtain the material presented in the lecture from a fellow student.
- Americans with Disabilities Act: According to University policy requests for accommodations must be initiated by the student. A student seeking accommodations should go to the Counseling Center in a timely manner and discuss any Students with Disabilities (SSD) issues. Every semester that the student desires accommodations, it is the student's responsibility to complete a Classroom Accommodation Request Form at the SSD office and follow the stated procedure in notifying faculty. Accommodations for disabled students are decided based upon documentation and need on a case-by-case basis by the Counseling Center.

**Religious Holidays:** University policy states that a student who is absent from class for the observance of a religious holy day should take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. The student, not later than the 15th calendar day after the first day of the semester, or the 7th calendar day after the first day of a summer session, must notify the instructor of each scheduled class that he/she would be absent for a religious holy day.

- Visitors In The Classroom : Unannounced visitors to class meetings must present a current, official SHSU identification card to be permitted in the classroom or at a restricted field site. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the class.
- **MAKE-UP EXAMS:** If you miss any of the first three exams there will be a comprehensive make-up exam given at 2 pm on May 3, 2007, in LDB 300.
- **RULES:** 1. Class starts on time.
  - 2. Class ends when I say it ends. Leaving early without permission = a tardy.
  - 3. Keep quiet when I am lecturing.
  - 4. Raise your hand if you have a question or need to leave for any reason.
  - 5. No drinks, No food, No smoking in the classroom.
  - 6. Switch all pagers and cell phones to a silent mode.
  - 7. Violations result in student being asked to leave and being counted absent.

# **CHEATING:** Cheaters will automatically fail. Please keep your eyes on your own exam.

You get one warning, then you get a zero. See Student Guidelines.

- **GRADING SCALE:** 180 200 points = A, 160 179 points = B, 140 159 points = C 120 - 139 points = D, less than 119 points = F No extra credit. Each of the four Scan-Tron exams is worth 50 points, for a total of 200.
- **OTHER:** Lab (GEL 113) grade is a separate grade. Labs start January 28, 2008.
- **DESCRIPTION:** An introduction to the materials, processes, and structure of the earth. Topics include earthquakes, volcanoes, plate tectonics, mountain building, weathering and erosion, glaciation, oceans, and mineral resources. No prerequisite. 3 credit hours.
- **OBJECTIVES:** To obtain an understanding of earth materials (minerals and rocks), earth processes (volcanism, erosion, earthquakes, etc.), and the relationships/interactions among the various components of the earth. I start *small* and *build* :

Minerals 🖙 Rocks 🖙 Crust 🖙 Plates 🖙 Earth

### PHYSICAL GEOLOGY Tentative Outline - Spring, 2008

| DATE  |   | TOPICS   |
|---|---|--|
| January   | 16  | Introduction   |
| January   | 18  | The Earth  |
| January   | 21  | Martin Luther King, Jr. Day (holiday)  |
| January   | 23  | Geocycles  |
| January   | 25  | Minerals   |
| January   | 28  | Minerals   |
| January   | 30  | Igneous Rocks  |
| February  | 1   | Intrusive Igneous Rocks  |
| February  | 4   | Extrusive Igneous Rocks  |
|   |   | Mt. St. Helens   |
| February  | 6   |  |
| February  | 8   | FIRST EXAM   |
| February  | 11  | Clastic Sedimentary Rocks  |
| February  | 13  | Chemical Sedimentary Rocks   |
| February  | 15  | Weathering and Soils   |
| February  | 18  | Metamorphic Rocks  |
| February  | 20  | Contact Metamorphism   |
| February  | 22  | Regional Metamorphism  |
| February  | 25  | The earth's surface  |
| February  | 27  | Mass Movement  |
| February  | 29  | SECOND EXAM  |
| March   | 3   | Rivers and Streams   |
| March   | 5   | Rivers and Streams   |
| March   | 7   | Groundwater (Drop Day)   |
| Marah   | 0 10  | Spring Break   |
| March   | 8 - 16  |  |
| March   | 17  | Groundwater  |
|   | 17<br>19  | Groundwater<br>Glaciers  |
| March   | 17<br>19<br>21  | Groundwater  |
| March<br>March  | 17<br>19  | Groundwater<br>Glaciers  |
| March<br>March<br>March   | 17<br>19<br>21  | Groundwater<br>Glaciers<br>Good Friday (holiday)   |
| March<br>March<br>March<br>March  | 17<br>19<br>21<br>24  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers  |
| March<br>March<br>March<br>March<br>March   | 17<br>19<br>21<br>24<br>26  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts   |
| March<br>March<br>March<br>March<br>March<br>March  | 17<br>19<br>21<br>24<br>26<br>28  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts  |
| March<br>March<br>March<br>March<br>March<br>March<br>March   | 17<br>19<br>21<br>24<br>26<br>28<br>31  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts<br>Shorelines  |
| March<br>March<br>March<br>March<br>March<br>March<br>March<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2   | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April   | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7   | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation   |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9  | Groundwater<br>Glaciers<br><b>Good Friday (holiday)</b><br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April   | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11  | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16  | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development   |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18                                    | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21                              | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23                        | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography  |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April   | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23<br>25                  | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography<br>Volcanism: Divergence   |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April  | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23<br>25<br>28            | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography<br>Volcanism: Divergence<br>Volcanism: Convergence   |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April                                     | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23<br>25<br>28<br>30      | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography<br>Volcanism: Divergence<br>Volcanism: Convergence<br>Intraplate Activity: Oceanic                                     |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23<br>25<br>28<br>30<br>2 | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography<br>Volcanism: Divergence<br>Volcanism: Convergence<br>Intraplate Activity: Oceanic<br>Intraplate Activity: Continental |
| March<br>March<br>March<br>March<br>March<br>March<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April<br>April                                     | 17<br>19<br>21<br>24<br>26<br>28<br>31<br>2<br>4<br>7<br>9<br>11<br>14<br>16<br>18<br>21<br>23<br>25<br>28<br>30      | Groundwater<br>Glaciers<br>Good Friday (holiday)<br>Glaciers<br>Deserts<br>Deserts<br>Shorelines<br>Shorelines<br>Ocean Floors<br>Crustal Deformation<br>Mountain Building<br>THIRD EXAM<br>Plate Tectonics<br>Ocean Basin Development<br>Earthquakes<br>Seismology<br>Seismic Tomography<br>Volcanism: Divergence<br>Volcanism: Convergence<br>Intraplate Activity: Oceanic                                     |

FINAL GEL 133.01 9 -10 MWF 8 - 10 Monday, May 14 GEL 133.02 10 -11 MWF 11 - 1 Monday, May 12