

## GEOGRAPHY 410/510 – OREGON GEOMORPHOLOGY: INTERPRETATION AND ANALYSIS



*This course utilizes Oregon's diverse geomorphology to interpret & analyze coastal, mountain, fluvial and other landscapes using geologic, topographic, soils, digital imagery and other data.*

Class Meeting: 4:00-5:20pm Monday and Wednesday, Condon 206 & SSIL at McKenzie Hall 445

PREREQUISITES: GEOG 322 or instructors approval

This is a challenging course that requires a substantial amount of work on your part.

### TEACHING STAFF:

**Instructor: Pollyanna Lind**

Office hours: 1:30-3:30 Thursdays, in 105 Condon or by appointment

e-mail: plind@uoregon.edu

**GTF: Swagata Goswami**

Office hours: 3-4pm Wednesdays, in 105 Condon or by appointment

e-mail: swagata@uoregon.edu

### READINGS:

The required readings will be posted on blackboard. An important reference book for the course is the book used in the pre-requisite course GEOG 322 (Bierman and Montgomery, Key Concepts in Geomorphology, W.H Freeman and Co.). ***If you do not have this textbook an ebook version is available for purchase online??????***

### LAB MEETINGS:

There will be five labs during the course. The labs will be introduced and worked on during class time on Mondays (4:00-5:20pm). Most of the labs will be completed in the SSIL computer lab at 445 McKenzie Hall. The labs are designed to inform the student about resources and to develop skills in geomorphic analysis.

### GRADING:

A **midterm and final exam** will be given. The final will be cumulative but focus primarily on the materials presented after the first exam. **Labs** are designed to develop interpretative and analytical skills integrated with lecture and discussion. All labs (5) must be turned in to pass the course. Lab days will be held in the SSIL computer lab located at 445 McKenzie Hall. The best five lab scores (out of six labs) will be tallied for the final grade. There will be two **field trips**. A minimum of one **field report** is required. Submission of a report from a second field trip will be counted as extra-credit points. Each student will give a 5-8 minute **presentation** on a selected geomorphic landform/feature in Oregon and submit a **3-5 page paper** on the same topic (additional pages for references and illustrations). Instructor approval of the topic is necessary in week two. **Quizzes** will be given on the assigned reading and lecture materials at the instructor's discretion.

### Grade points:

|               |   |
|---------------|---|
| Exams (2x 20) | = 40 pnts   |
| Labs (5 x 6)  | = 30 pnts   |
| Field Reports | = 8 pnts (extra credit for second field report 8pnts) |
| Pres & Paper  | = 12 pnts   |
| Quizzes       | = 10 pnts   |
| <b>TOTAL</b>  | <b>= 100 pnts</b>                                     |

### Grading scale for the course:

|             |     |
|-------------|-----|
| 90 to 100   | = A |
| 80-89       | = B |
| 70 to 79    | = C |
| 60-69       | = D |
| 59 or below | = F |

*Within the A, B and C ranges, the top two points result in a plus grade and the lowest two points result in a minus grade. Interim and final grades will be posted on Blackboard.*

### **COURSE EXPECTATIONS:**

- The instructor and GTF are available to help you. Come to office hours, or contact one of us for an appointment.
- Do the assigned reading before each lecture.
- Review the weekly guides posted on Blackboard.
- The syllabus shows the intended schedule for the term, but the schedule may shift as this is the first time this course is being offered.
- Attendance and classroom participation are a part of your grade in this course. To participate you must attend class having prepared the materials for the day. We encourage you to ask questions relevant to the topic during the lectures and labs.
- Participation in at least one of the two field trips is required. If this is not possible for you then arrangements with the Instructor must be made early in the term to create an equivalent exercise.
- Turn off all cell phones, pagers and other personal web devices while in class. You may use a computer or tablet computer to take notes.
- Be on time and stay until class is dismissed. If you have informed the instructor before class that you must leave early, please sit near the exit and leave quietly to minimize the disruption.
- Turn in assignments and take tests on time. Due dates for lab exercises will be announced in the lab sections. Late exercises will lose points for each day late.
- No make-up tests will be given unless you provide documentation in advance and for a reason that is valid in the instructor's judgment, or you provide a medical excuse signed by a physician within a week after the test.

**ACADEMIC INTEGRITY:** Violations of academic integrity, such as cheating and plagiarism, will not be tolerated. You may work with other students in lab, but all the work (tests, quizzes, papers, presentations, and labs) that you turn in for a grade must be your own work, in your own words, and produced exclusively for this course. Violators may receive an F or N, and violations or suspected violations will be reported to the Director of Student Conduct. For the consequences of academic misconduct, or if you are in doubt regarding what constitutes academic misconduct, please consult the Student Conduct Code at <http://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode.aspx>, or ask the instructor or GTF.

## COURSE SCHEDULE:

Readings will be assigned and posted on blackboard.

This is a new course and thus the schedule is flexible to evolve through the term.

| DATE  | TOPIC   | ROOM    |
|-------|---|---------|
| 9/29  | INTRODUCTION: course focus; landscape history & geomorphology   | CON 206 |
| 10/01 | Summary of Oregon Geology   | CON 206 |
| 10/06 | LAB 1: Resources; maps, websites, Arc, data<br>• <b>Pres/paper topics determined before end of week</b> | McK 445 |
| 10/08 | Cascade Range (old & new) – creation & erosion (Mazama)   | CON 206 |
| 10/13 | LAB 2: Mount Hood, eruption hazards and modern lahar flows; <b>LAB 1 DUE</b>                            | Mck 445 |
| 10/15 | Glacial features – glacial maximum, little ice age, influence on modern landscape                       | CON 206 |
| 10/18 | FIELD TRIP 1 – Central CASCADE Mnts   | Oregon  |
| 10/20 | LAB 3: Glacial distribution & retreat, impacts of climate change; <b>LAB 2 DUE</b>                      | McK 445 |
| 10/22 | Accreted terrains: creation, soils, biogeography (Greenhorns & Klamath-Siskyou)                         | CON 206 |
| 10/27 | <b>EXAM 1</b>   | CON 206 |
| 10/29 | Coastal Mountain Range; <b>FIELD TRIP 1 REPORT DUE</b>  | CON 206 |
| 11/03 | LAB 4: landslides, geology, slope, land use; <b>LAB 3 DUE</b>   | McK 445 |
| 11/05 | Coastal: uplift/subsidence cycles, marine terraces, beach & dune processes                              | CON 206 |
| 11/08 | FIELD TRIP 2 – CENTRAL COAST & COASTAL MOUNTAINS  | Oregon  |
| 11/10 | Lab 4: continue & begin Rivers & Valleys  | McK 445 |
| 11/12 | Rivers & Valleys  | CON 206 |
| 11/17 | LAB 5: change analysis; <b>LAB 4 DUE</b>  | McK 445 |
| 11/19 | Basin & Range: geologic boundary; <b>FIELD TRIP 2 REPORT DUE</b>  | CON 206 |
| 11/24 | <b>STUDENT PRESENTATIONS</b>  | CON 206 |
| 11/26 | <b>NO CLASS</b>   | CON 206 |
| 12/01 | John Day Fossil Beds/Clarno (paleosols) / Strawberry Mnts; <b>LAB 5 DUE</b>                             | CON 206 |
| 12/03 | Hells Canyon / Steens Mountains – <b>student papers due</b>   | CON 206 |
| 12/09 | <b>FINAL --- Tuesday, Dec 9<sup>th</sup> at 2:45pm</b>  | CON 206 |

## ACCOMMODATION FOR STUDENTS WITH DISABILITIES:

If you have a documented disability and anticipate needing accommodations in this course, please contact your instructor Pollyanna Lind in the first week of class.

We will make every effort to accommodate you.