

**Note: Yellow highlight indicates new policies related to the Public Health Emergency.
Ver. 1.0, updated October 1, 2020**

ES322 (Alias ES406) GEOMORPHOLOGY (4 credits)

POLICIES AND PROCEDURES

Fall 2020 Term - Western Oregon University

Instructional Mode:

Online Hybrid Asynchronous with one virtual synchronous meeting per week on Thursdays, 11 AM – 1 PM

INSTRUCTOR: Dr. S. Taylor

OFFICE: RM 210 Natural Sciences Bldg

OFFICE HOURS: T, R 4-5 PM; F2-3 PM
By Appointment

Phone: (w) 838-8398 (cell) 541-760-9216
e-mail: taylors@wou.edu
Web Site: www.wou.edu/taylor

PERSONAL ZOOM OFFICE MEETING URL:

<https://wou-edu.zoom.us/j/88621557213?pwd=bTJxVmZ5MWQzeWkvSWJnc0VWSDJOQT09>

WEEKLY VIRTUAL CLASS MEETING: Thursdays 11 AM-1 PM via Zoom

<https://wou-edu.zoom.us/j/88101359337?pwd=ZINQaDRIOFRIZTU4SE9qZnR2bVROUT09>

ES322 MOODLE SHELL: <https://moodle.wou.edu/>

ES322 CLASS WEB SITE: https://people.wou.edu/~taylors/g322/ES322_home.html

CATALOG DESCRIPTION:

Geomorphology is the study of the Earth's surface landforms and the processes that operate to form them over geologic time (10^2 to 10^6 years). This course will examine a wide variety of landforms and processes, with an emphasis on those associated with Oregon and the Pacific Northwest. Studies will include systematic analysis of weathering processes, soils, mass wasting, fluvial systems, glacial phenomena, tectonic landscapes, volcanic areas, and coastal regions. Class lab exercises will include interpretation of aerial photographs, map analysis, and quantitative (algebra, trigonometry, and statistics) approaches to geologic problem solving.

REMOTE ONLINE MODE:

This course will be conducted entirely online in a remote learning mode format. Students will engage internet tools including email, class web site, Moodle learning management system, and web conferencing technology.

As a team, we will be using up to 6 possible modes of remote communication for this term, either separately or together in combination, these include: (1) Personal one-on-one mobile device interactions (e.g. voice calls, text messaging, whatsapp), (2) WOU email system (taylors@wou.edu), (3) ES322 Class Web Site:

(https://people.wou.edu/~taylors/es420_med_geo/ES420_home.html), (4) ES322 Class Moodle Site:

(<https://moodle.wou.edu>), (5) Zoom online conferencing tool, and if necessary, (6) U.S. Postal Service and paper mail.

Virtual Class Meetings: The class will primarily be conducted online in asynchronous mode, however **we will hold recurring weekly real-time virtual class meetings during the term via Zoom, on the Thursdays from 11 AM to 1 PM for Fall Term 2020.** Zoom links for the meetings will be made available via Google Calendar, email reminders, and postings to the ES322 class web site. Each week, at the listed day and time, I will have a meeting space open for students to attend a virtual class meeting in which I will provide class instructions and lesson overviews; plus answer any questions or assist with assignments. Zoom is a web browser-based tool, click a link that I will send out to join meeting; voice, video and text / chat options are available. If you experience difficulty connecting to the Zoom meeting space during meeting time, Plan B give me a call directly on cell phone at 541-760-9216, that works as well. I will send out email reminders and virtual meeting links as we progress through the summer session. **Alternative options will be provided to students who are not able to attend the virtual class meetings; recordings will be archived and available via download from the ES322 class web site.**

Virtual Office Hours: Standing office hours will be held during the posted days / times above using the Zoom web conferencing tool. The instructor has an account with a virtual room set up that has a static web address with following URL / Invitation Code:

Topic: Taylor Steve's Personal Meeting Room Join Zoom Advising Meeting
<https://wou-edu.zoom.us/j/8273666289?pwd=bitrNUtBNzNZNUYycFF6NlpzT2ZKUT09>
Meeting ID: 827 366 6289 Passcode: 699588

Each week, at the listed day and time, I will have a meeting space open for students to drop in as needed for Virtual Office Hours. Enter the URL into a web browser, click link to join meeting, enter the passcode information to enter virtual meeting room. Voice, video and text / chat options are available. If you experience difficulty connecting to the Zoom meeting space during office hours, Plan B give me a call directly on cell phone at 541-760-9216, or email anytime, that works as well. Plan C, send an email, I check frequently and often during the academic year. Email is a primary means of communication with me.

COURSE GOALS AND LEARNING OBJECTIVES:

ES322 learning objectives are aligned with select components of the LEAP (Liberal Education and America's Promise; <http://aacu.org/leap>) learning outcomes developed by the Association of American Colleges and Universities. Upon successful completion of ES322 Geomorphology, students will be able to demonstrate minimum competency in the following program areas:

- Outcome 1: Explain mass and energy transfer cycles that result in erosion and deposition (PO1)
- Outcome 2: Apply algebraic, trigonometric, and statistical principles to geologic data collection and analysis (Q)
- Outcome 3: Identify landforms, describe their composition, and interpret processes that result in their development at the Earth's surface (PO3, I&A)
- Outcome 4: Summarize concepts of landscape evolution in the context of geologic time (PO1)

THE PROFESSOR'S PHILOSOPHY ON UPPER DIVISION EARTH SCIENCE / GEOLOGY COURSES:

The upper division Earth Science / Geology course sequence is designed for mature, serious students who are willing to work hard, play hard, have fun, and learn in-depth skills / concepts in a professional academic setting. By default, our student population is very diverse with a wide array of skills, interests, and career goals. The student population ranges from serious Earth Science majors with focused career objectives, to Geology / Earth Science minors to Science Education majors. As such, the professor is charged with serving a diverse array of student interests and career goals in the most professional manner possible. The problem-solving and technical skills acquired via training in the Earth Sciences are highly valuable (and marketable), regardless of career track. Students are expected to actively participate in the learning process and make a significant contribution to the academic integrity of the Earth Science program at Western Oregon University. The ultimate goal of the program is to provide graduates with the academic skills that will enable them to be highly competitive in graduate school or the career marketplace. *GO TEAM!*

TEXT AND READING:

Bierman and Montgomery, 2014, **Key Concepts in Geomorphology 1st Ed.**: W.H. Freeman, New York, NY493 p (ISBN-13: 978-1-4292-3860-1) [Note: text chapter readings available at ES322 Moodle Class Page; moodle.wou.edu]

Handouts / online resources / journal articles provided by instructor. **There is no purchased textbook required for this class.**

CLASS NOTES:

A comprehensive set of instructor class notes are available for download via the internet. The class web site is at URL <http://www.wou.edu/taylor> ... and follow the links to the "ES322" home page. The class notes are available as Adobe Acrobat Reader files (*.pdf file).

WEB-BASED LEARNING MANAGEMENT SYSTEM

Web-based curriculum materials, exercises and group discussions will be accomplished via a combination of the course web page (www.wou.edu/taylor), email (taylors@wou.edu) and use of the Moodle course management system, as needed (<https://moodle.wou.edu/>).

EVALUATIONS AND EXPECTATIONS:

Student performance will be evaluated on the basis of 2 exams (Mid-term, Final) and weekly lab exercises.

The following is a breakdown of evaluation points, dates, and letter grades:

Mid-Term	100	pts
Final Exam	125	pts
Class / Lab Exercises	120	pts
Class Participation	15	pts
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TOTAL:	360	pts

Final Grading Scale

Percent Range of Total Points	Letter Grade	Percent Range of Total Points	Letter Grade
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94-100%	A	77-79%	C+
90-94%	A-	73-76%	C
87-89%	B+	70-72%	C-
83-86%	B	67-69%	D+
80-82%	B-	63-66%	D
		60-62%	D-
		<60%	F

Exams: Exams will be administered at evenly spaced increments throughout the term; the final will be 20% comprehensive with test material drawn from throughout the term. Exams will largely consist of essay questions and homework-type problems. *Warning: the exams are very comprehensive and will likely require a full 2+ hours to complete, please plan accordingly.*

SPECIAL NOTE ON EXAM ANSWERS: Never use “etc.” in an essay or short answer on an exam. This means nothing in terms of demonstrating your content knowledge. Sketches and drawings help support your written word.

Make-Up Exams: Under NO circumstances will make-up exams be administered without prior arrangement (at least five days) and good reason. Please show up on exam day!

Class and Lab Assignments: Class and lab assignments will be worked BOTH during class time and outside of class time each week. You will have lab, reading, and homework assignments that **may** take up to 3 or 4 hours to complete outside of class time, maybe more in some cases, depending on your skill levels and ability. Please plan your schedule accordingly. Due dates for class exercises will be prescribed by the instructor. Late work will be accepted up to 1 week after the due date, but will be automatically assessed a penalty of -20% of the point total.

Due to the volume of students assigned to the instructor each term, he will not be able to grade the lab exercise work in detail. The homework and lab assignments will be checked for completeness, with questions randomly chosen for content and accuracy. Grade points will be assigned on the basis of these two criteria. Exercise answer keys will be posted on the class web site by the instructor. **It is your responsibility to: (1) check your**

work against the lab / homework keys, (2) make sure you understand how to complete the exercises, (3) find help if you have trouble with lab exercises, and (4) study / learn the exercise skills and material for the exams.

A Note About Incompletes: No incomplete grades will be given during the last week of class. If you have a problem that warrants an incomplete, make arrangements prior to the last week (no exceptions!!).

Learning Resources and Grade Outcomes: The class knowledge base will be derived from a combination of the following: (1) independent student reading outside of class; (2) independent student engagement of take-home lab exercises and quantitative problem solving; (3) independent student reading of web resources linked from the class web site; (4) systematic review and memorizing of class notes and ancillary reading materials, as directly linked from class web site and handed out in hard copy during class time; and (5) successful attendance, note taking, and engagement of in-class lectures delivered by the instructor. Instructor lectures are designed as interpretive translations to assist students in understanding the class content and to stay on track with the weekly schedule. Lectures are not intended as the primary knowledge transfer mechanism. Independent student engagement of readings, class notes and lab work outside of class time is the most important pathway to success.

ANOTHER NOTE ABOUT LAB EXERCISES:

Lab exercises will be quantitative in nature with an expectation that students have or will develop skills in the areas of applied algebra and trigonometry. Students will learn computer applications with emphasis on data analysis and problem solving in the Earth sciences. As such, lab exercises will require an additional time commitment outside of the scheduled weekly meeting (i.e. you will have "homework" and "projects" to work on outside of the scheduled class time).

FIELD TRIP(S): Due to the public health crisis, there will be no field trips offered in Fall 2020.

WEEKLY CLASS PARTICIPATION AND ASSIGNMENT POLICY:

There is a direct correlation between class participation and student performance. Since this course is being offered in an online format, students are expected to engage in active learning modules with their peers and instructor on a daily and weekly basis. Successful completion of the course is based on online student participation and collective interaction. As such, student work activities and progress will be checked via Moodle Login Records each week. Assessment will involve one-on-one debriefing with the instructor and clear demonstration of student achievement. Class participation points are available to students who demonstrate adequate weekly progress on their in-class assignments and show up as part of the team. Absent work with written excuses for medical reasons or university-related functions may be used to arrange make-up work with the instructor. As with incompletes, contact the Office of Student Affairs to arrange for assistance as needed (838-8365).

STUDENT HONOR POLICY AND CODE OF CONDUCT:

Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations, including selling/buying and/or uploading/downloading instructors' classroom information without express permission from the instructor. Misconduct also includes copying others work, cutting-and-pasting computer results, and using cheat sheets on exams. However, students are encouraged to interact in small groups during class assignments, i.e. you can freely discuss concepts in all portions of the class, except exams. To avoid a problem in this regard, students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before acting. For more information, please see the WOU Code of Student Responsibility at <https://wou.edu/studentconduct/files/2017/10/CSR-09.01.17.pdf>

OTHER REQUIRED MATERIALS:

Students will also need access to a scientific calculator, colored pencils, ruler, and protractor. You will be required to use these materials during lecture, lab, and exams. Please plan accordingly, or you will have trouble successfully completing the class. Computer access and Microsoft Office (Word, Excel, Powerpoint) will be required to complete lab exercises. For the online mode of delivery, students will need access to computer hardware, software (including MS Office, MS Word, MS Excel or alternative compatible products), and a stable internet connection capable of streaming video. MS Office365, including Excel, is available free to all WOU students, for more information connecting visit the following URL: <https://wou.edu/tech/remote-access/> Please plan accordingly, or you will have trouble successfully completing the class.

A NOTE ABOUT COMPUTER-BASED AND ONLINE COURSES:

This class will use technology, hardware, software, and the internet. As such, there are endless possibilities for software glitches, system failure, and total confusion. Your patience with lab exercises, assignments, course content, and software / hardware glitches will be greatly appreciated. **Our motto for this class: “expect the worst and hope for the best”.**

STUDENT TECHNOLOGY SUPPORT:

A website with detailed information about computer requirements and technology support for WOU students is available at the following URL: <https://wou.edu/provost/keep-learning/> In addition, other important phone numbers and web links for WOU technology support are listed below:

Western Oregon University Moodle Support: 1-503-838- 9300 (moodle@wou.edu)

Western Oregon University Computing Solutions (UCS): 1-503-838-8925 (ucshelpdesk@wou.edu)

WOU Remote Access Resource Page: <https://wou.edu/tech/remote-access/>

WOU Academic Affairs Resource Page: <https://wou.edu/provost/instructional-resiliency/>

STUDENTS WITH DISABILITIES AND OTHER SERVICES:

Any student who has a disability that requires accommodation, please make an appointment to see me. The Office of Disability Services is available to support students with disabilities as well as the faculty and staff who serve the students for more information contact ODS, phone 503-838-8250, <http://www.wou.edu/disabilityservices/> Students in need of assistance with other personal life and health issues should contact the CARE Team in the Office of Student Affairs 503-838-8221, <http://www.wou.edu/student/care-team/care-team-information/>

A NOTE ABOUT THE LAST WEEK OF CLASS:

Given that the Oregon University System employs the "quarter method" of academic scheduling, upper division courses are by nature "compressed" with much detailed information to cover in a relatively short period of time. Please note that most upper division text books are geared for courses at universities with a 16 week semester system (i.e. we are truly trying to pack 10 pounds of soil in a 5 pound bag). As such, the 10th week of class is as critical to content coverage as the 1st week. Students should anticipate a full slate of "normal" activities during the last week of class, including lectures, lab exercises, written reports, etc. The class is not over until after the final exam! **Plan your schedule accordingly!**

A NOTE ABOUT LOST OR MISSING WORK:

The instructor will only grade work that is received and physically visible. Any missing work (lab assignments, homework, quiz/test answer sheets) will receive a “0” on the grade sheet. This policy applies to work lost by the student or instructor. If the student demonstrates that the work was turned in, but is missing due to the instructor’s error, then the student will be afforded an opportunity to make up the work and resubmit it for graded credit. Otherwise, the student will not receive credit for lost or missing work.

TIME MANAGEMENT: You will have reading, and homework assignments that may take up to 3 or 4 hours to complete, maybe more in some cases, depending on your skill levels and ability. Please plan your schedule accordingly. Due dates for class exercises will be prescribed by the instructor (see below for tentative schedule). There is much flexibility in terms of weekly class scheduling and completing the course work at your own convenience. **Plan your schedule accordingly, so that you don’t fall behind!**

DIGITAL ASSIGNMENT SUBMISSION USING MOODLE: All assignments will be submitted electronically as MS Word or Acrobat PDF files to the ES420 Moodle Online Class Management System (<https://moodle.wou.edu>).

INSTRUCTOR TIMELINE FOR ONLINE RESPONSE; GRADING EXAMS AND ASSIGNMENTS:

The instructor will respond to emails / messages ASAP and within 24 hours (usually much faster, but understand that it could be up to a day before I respond). On weekends and in the evening, it may take a bit longer, but I will make a point of getting back to you as quickly as possible. The instructor's class grades are typically due to registrar's office the week following the class end date. All exams, lab materials, and assignments submitted by students throughout the term will be graded by that time, however the professor will make an effort to return graded materials within two weeks of the assigned due date. Answer keys and other resources will be posted to assist with students evaluating their work on a weekly basis. ***Grade Reports: I will not be using the Moodle gradebook tool. I will be personally reviewing your work submitted via Moodle upload, grading it manually, and recording scores in my own spreadsheet / gradebook, outside of Moodle. I will send you individual grade updates via email as the session progresses.***

REQUESTS FOR TIME EXTENSIONS: The professor is flexible, helpful and supportive. It is understood that students are busy and get caught in a crunch and require extra time to complete assignments. Requests for extensions will be considered on a case by case basis; however, given the rigorous nature of the fall class schedules of the student group, it will be best to complete work according to or ahead of schedule, as possible.

CHANGE OF SYLLABUS AND ASSIGNMENT DUE DATES:

The instructor reserves the right to modify the syllabus and class schedule at any time during the term. Students will be notified of such changes in a timely manner. The instructor also reserves the right to assign unscheduled homework / class assignments at any time. All students will be responsible for completing this work and it will comprise part of the final class grade. Due to the Public Health Emergency, the short-turnaround shift to remote / online education will be a work in progress. Patience and teamwork will be required. The instructor reserves the right to change the syllabus and class structure, as needed, given the dynamic nature of the situation, and the potential for glitches associated with the technology infrastructure. Much time will be provided for students to succeed and adjust to the new learning mode, as the term progresses.

The assignment due dates outlined below should be considered tentative at best. The following schedule may be modified as class ideas evolve throughout the session. In general, weekly reading review assignments are due via Moodle upload on Fridays by midnight, following the prior class week topic.

TENTATIVE CLASS SCHEDULE: This outline should be considered tentative at best. The following schedule may be modified as class ideas evolve throughout the term. Note: Bierman and Montgomery Textbook is available for download on ES322 Moodle class page (<https://moodle.wou.edu>)

Week	Dates	Class Content	Bierman & Montgomery Text Reading
1	9/28/20-10/2/20	Class Introduction / Basic Principles Virtual Class Zoom Meeting: Thursday Oct. 1, 11 AM	Chap. 1
2	10/5/20-10/9/20	Weathering and Soils Virtual Class Zoom Meeting: Thursday Oct. 8, 11 AM Week 1 Assignments Due by Friday Oct. 9, 11:59 PM	Chap. 3
3	10/12/20-10/16/20	Mass Wasting and Hillslopes Virtual Class Zoom Meeting: Thursday Oct. 15, 11 AM Week 2 Assignments Due by Friday Oct. 16, 11:59 PM	Chap. 5
4	10/19/20-10/23/20	Rivers and Channels Virtual Class Zoom Meeting: Thursday Oct. 22, 11 AM Week 3 Assignments Due by Friday Oct. 23, 11:59 PM	Chap. 4, 6
5	10/26/20-10/30/20	Drainage Basins and Watersheds (Cont.) Virtual Class Zoom Meeting: Thursday Oct. 29, 11 AM Exam 1 Thursday October 29 Week 4 Assignments Due by Friday Oct. 30, 11:59 PM	Chap. 7
6	11/2/20-11/6/20	Glacial Geomorphology Virtual Class Zoom Meeting: Thursday Nov. 5, 11 AM Week 5 Assignments Due by Friday Nov. 6, 11:59 PM	Chap. 9
7	11/9/20-11/13/20	Desert Geomorphology / Wind Virtual Class Zoom Meeting: Thursday Nov. 12, 11 AM Week 6 Assignments Due by Friday Nov. 13, 11:59 PM	Chap. 10
8	11/16/20-11/20/20	Tectonic Geomorphology Virtual Class Zoom Meeting: Thursday Nov. 19, 11 AM Week 7 Assignments Due by Friday Nov. 20, 11:59 PM	Chap. 12
9	11/23/20-11/27/20	Coastal Geomorphology No Virtual Class Zoom Meeting: Thanksgiving Break Week 8 Assignments Due by Monday Nov. 30, 11:59 PM	Chap. 8
10	11/30/20-12/4/20	Climate Virtual Class Zoom Meeting: Thursday Dec. 3, 11 AM Week 9 Assignments Due by Friday Dec. 4, 11:59 PM	Chap. 13
11	12/7/20-12/11/20	Final Exam Thursday December 10 No Virtual Class Zoom Meeting: Final Exam Week Week 10 Assignments Due by Thursday Dec. 10, 11:59 PM	

Tentative Lab Exercises (to be scheduled as time permits)

Lab No.	Topic
1	Review of Map Basics
2	Introduction to Landscape Analysis
3	Air Photo Interpretation (Parts 1 and 2)
4	Field Trip to Monmouth Cemetery (Historic Weathering Rates)
5	Humans as Geomorphic Agents / Weathering Rates
6	Soil Surveys as a Tool for Geomorphic Mapping
7	Field Fluvial Geomorphology (Parts 1 and 2)
8	Climate Change and Morphodynamics of Grinnell Glacier, MT
9	Tectonic Geomorphology of Steens Mountain, OR
10	Neotectonics of Western Oregon and the Pacific Northwest
11	Coastal and Beach Processes of Oregon
12	Textbook Review Questions