

**Tectonics of Orogenic Belts (GEOL 444/644)**

Class Syllabus - Spring, 2019

Dr. Wanda Taylor - Office: LFG 214

Office hours: W 9:30 – 10:30; T &amp; Th 11:30 – 12:30 or by appointment

1. General Lecture Information - The purpose of this course is to provide the student with the material & opportunity to learn about the tectonics of orogenic belts, the many variations of orogenic belts around the world, and the plate tectonic settings of orogenies. The student is expected to attend class meetings, take all exams and participate in discussions of the literature. Generally, late exams or exercises are not permitted. In emergencies, I must be notified at least one hour prior to the scheduled test or exercise due date.

2. Learning Objectives - Basics of orogenesis; the relations between structures and tectonics; an understanding of structural geometries and kinematics, and what they tell us about deformation; and an understanding of examples of different types of orogenic belts.

## 3. Schedule

Week of	Topic	Due
1/22/2019	T R	Overview, Guide and Plate Tectonics Plate Tectonics, Crustal Structure
1/29/2019	T R	Plate Tectonics Exercise Supercontinents
1/31/2019	T R	Rifts, Extension and Rodinia Extension and Geochronology
2/5/2019	T R	Rodinia Readings More Geochronology
2/12/2019	T R	Extension Extension
2/19/2019	T R	Extension Readings Strike-slip Deformation
2/26/2019	T R	Strike-slip Deformation Strike-slip, Fault Zones
3/5/2019	T R	Strike-slip Deformation Readings Convergent Margins
3/12/2019	T R	Convergent Margins Convergent Orogenies
3/18-24/2019	T & R	The Andes and N.A. Cordillera
3/26/2019	T R	The Andes and N.A. Cordillera Mid-semester break
4/2/2019	T R	Back-arc F & TB Back-arc F & TB
4/9/2019	T R	Collisional belts Collisional belts
4/16/2019	T R	Alpine-Himalayan belt Alpine-Himalayan belt Readings
4/25/2019	T R	Appalachian-Caledonide system Appalachian-Caledonide system
4/30/2019	T R	Appalachian-Caledonide system Readings
5/7/2019	T R	Exotic terranes Exotic terranes Readings
5/16/2019		Thursday Noon (adjusted) Final Exam Due

## 4. Assessment Statement

**GEOL 444** - Assessment of the learning/outcome objectives will be based on 3 lecture exams (@ 21% = 63%), problem set (2%), and importantly discussion questions and discussion participation (30%). Students and the instructor will grade all class members on class participation. Exams will be take home.

**GEOL 644** - Assessment of the learning/outcome objectives will be based on 3 lecture exams (@ 17% = 45%), problem set (2%), a 30-45 minute topic/research presentation (17%), and importantly discussion questions and discussion participation (30%). Students and the instructor will grade all class members on class participation. Exams will be take home.

Absences on Discussion days must be excused. Plagiarism/cheating, especially on exams will result in a zero score on that product and a related discussion with appropriate authorities.

## 5. University Policies

Please see the [Student Syllabus Policies Handout](https://www.unlv.edu/sites/default/files/page_files/27/SyllabiContent-MinimumCriteria-2018-2019.pdf) for select, useful information for students. This document can be found at: [https://www.unlv.edu/sites/default/files/page\\_files/27/SyllabiContent-MinimumCriteria-2018-2019.pdf](https://www.unlv.edu/sites/default/files/page_files/27/SyllabiContent-MinimumCriteria-2018-2019.pdf)

### Relevant policies

**Academic Misconduct**—Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling at UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <https://www.unlv.edu/studentconduct/student-conduct>.

**Classroom Conduct**—Students have a responsibility to conduct themselves in class and in the libraries in ways that do not interfere with the rights of other students to learn or of instructors to teach. Use of electronic devices such as pagers, cellular phones, or recording devices, or potentially disruptive devices or activities, are permitted only with the prior explicit consent of the instructor. The instructor may rescind permission at any time during the class. If a student does not comply with established requirements or obstructs the functioning of the class, the instructor may initiate an administrative drop.

**Copyright**—The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you, nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/provost/copyright>.