GEOL/METR 1034: Native Science and Earth Systems of North America

Course Instructors:  Contributions From:
Dr. R. Douglas Elmore (Geology)  Dr. Mary Jo Watson (Art History)
Dr. Kevin Kloesel (Meteorology)  Dr. Suzanne Van Cooten (Meteorology)
heather ahtone (Art History)  Dr. Aondover Tarhule (Geography)

Objective:
The purpose of this course is to become familiar with interactive Earth systems through an examination of the North American continent. This team-taught course is conducted utilizing a combination of geography, geology, and meteorology studies and Native American sciences, as expressed through the use of art and oral history. Students will learn about the hydrologic, tectonic, and rock cycles; their interactive relationship, how they help to shape the continent, and how these cycles are represented within place-based science of the Indigenous cultures. The class includes 2 one-day field trip, guest speakers, and a required lab.

Textbook:
Christopherson, R.W., Geosystems (7th Edition), 2009.
Cajete, Gregory C. Native Science, 1999
Additional required readings will be posted on the class website.

Grading:
The course grade will reflect the student’s active participation and completion of assigned projects.  

A=100-90%  B=80-89%  C=70-79%  D=60-69%  F=0-59%

- Class Attendance & Participation 5%
- In-Class Exercises 15%
- Short Paper 10%
- Exam 1 15%
- Exam 2 15%
- Final Exam 15%
- Lab 25%

Required Field Trips:  The course includes 2 one-day field trips. The first is a trip to the Wichita Mountains. We will visit Timber Gap, Slick Hills, Wind Farm (Blue Canyon), Meer’s Fault, Mount Scott, Mount Sheridan, Medicine Bluff and Medicine Bluff Creek, and Fort Sill. The second is to the Arbuckle Mountains where we will examine structural geology and water resources of the area.

In-class Exercises:  These will involve individual and small group discussions and short written responses. Collaborative student groups will argue issues concerning a “problem statement” developed for an actual geoscience scenario.

Short Paper:  The short paper will be an assignment based on in-class discussion, reading assignments, and is designed to provide students an opportunity to analyze and strategize to address actual geoscience issues.
Examinations: Two in-class examinations and a comprehensive final examination. The exams will include multiple choice, fill-in-the-blank, short answers, and essay questions.

Lab: This course requires enrollment and participation in a lab class in addition to the lecture class. Assignments and participation from lab will be combined to earn the students the points that will be part of the course overall grade.

ACCOMMODATION:
"The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173."

ACADEMIC MISCONDUCT:
The OU web address www.ou.edu/provost/integrity is where you can find “A Student’s Guide to Academic Integrity.” It is a requirement that you read this guide and be able to participate in class discussion on the topic. Submitted assignment papers are expected to exhibit independent and original writing. There is a “No Tolerance” policy for this class. Any misconduct will result in a grade of F for the semester.

ATTENDANCE:
Class attendance is required. If you miss more than four classes, you risk failing this course. There are, from time to time, extenuating circumstances. Please see the instructor concerning emergencies or illness.

"It is the policy of the University to excuse absences of students that result from religious observations and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays."