

Syllabus

HYDROMETEOROLOGY - METR 4633

Course Description: Hydrometeorology is that part of meteorology directly concerned with hydrologic problems, such as forecasting and observing heavy precipitation and floods and how such features impact flood control, hydroelectric power, irrigation, and similar fields of engineering and water resource management. The term “hydrometeorology” also is used in many countries to name the official forecast and warning service charged with the dual responsibility of dealing with weather and hydrologic problems. This discipline also encompasses the complex issues associated with widespread drought and associated lack of precipitation.

The Hydrometeorology course begins with a specific focus on the water cycle and how water in all three phases (solid, vapor, liquid) exists and moves within the surface-subsurface-atmosphere continuum. Additionally, the course addresses topics including evapotranspiration, cloud and precipitation formation, the mechanisms involved in extreme precipitation (snow, ice, convective precipitation, and non-convective precipitation), floods, drought, and precipitation monitoring and forecasting. These topics are further covered as related to local versus regional, versus global scales and how these processes impact human systems.

Meeting Times and Location: Tuesday and Thursday from 2:30 - 3:45 pm
NWC 5600
Final Exam: 1:30 - 3:30 pm, May 6, 2014

Course Professor: Jeffrey Basara, Ph.D.
Address: School of Meteorology, NWC 5238
Telephone Number: (405) 325-1760
E-mail Address: jbasara@ou.edu
Office Hours: TBD and/or by appointment.

Course Grade Determination:

Mid-Term Exam:	25%
Final Exam:	30%
Semester Project:	30%
Homework and Reading Assignments:	15%

Guaranteed Course Grades:

100 - 90.0	A
< 90.0 – 80.0	B
< 80.0 – 70.0	C
< 70.0 – 60.0	D
< 60.0	F

Required Texts and Readings: None

Suggested Texts and Readings:

Midlatitude Synoptic Meteorology: Dynamics, analysis, and forecasting, Gary Lackmann.

Mesoscale Meteorology in Midlatitudes, Paul Markowski and Yvette Richardson.

Terrestrial Hydrometeorology, W. James Shuttleworth,

Enrollment: Prerequisite - A grade of C or better in METR 3123 and 3223, or permission of the instructor.

Reasonable 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 me 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:

All provisions of the Norman Campus Academic Misconduct Code shall apply in cases of academic dishonesty. ANY violation of the Academic Misconduct Code will result in your removal from this course, and a grade of F will be recorded for the course. Academic misconduct is defined as “any act that improperly affects the evaluation of a student’s academic performance or achievement.” At the University of Oklahoma, academic integrity is expected from each student. Misconduct such as plagiarism, fabrication, and fraud, as well as attempting to commit such acts or assisting others in so doing, will not be tolerated. Students are responsible for knowing the OU Academic Code, which can be found at <http://www.ou.edu/studentcode> and <http://www.ou.edu/provost/integrity>.

METR 4633 In-Class Policies:

Students must maintain regular attendance and are expected to participate in all class discussions. To eliminate distractions to the instructor and/or fellow students, all cell phone devices must be silent during in-class meeting times and may not be used except in an emergency – texting is **NOT** allowed. Laptop computers are permissible (and encouraged) but **MUST** be used for course related activities. As such, applications and activities including, but not limited to chat, Facebook, MySpace, Twitter, etc. are **NOT** allowed without the consent of the instructor.