WR417: Watershed Measurements – Fall 2019
Class times: T 2:00-2:50 NR201; W 2:00-5:00 NR201 (or in field)

Instructor: Tim Covino
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Course overview and objectives: (1) provide theoretical understanding and practical experience with the most common measurement techniques relevant to watershed hydrology; and (2) provide training in collecting, analyzing, and presenting scientific data.

Text: Readings posted on Canvas

Online resources: Course documents will be posted on Canvas, http://canvas.colostate.edu.

Schedule (dates subject to change) *Labs generally due the following Friday at 8PM

Week	Tuesday	Wednesday
1: 8/27 & 28	Lecture: Intro	Field trip: Met stations and met station visit
2: 9/3 & 4	Lecture: Meteorological measurements, sensors	Field lab: Met station trial run
3: 9/10 & 11 *sign up for monitoring	Lecture/lab: Stream morphology	Field lab: Stream morphology Due: Met station trial run
4: 9/17 & 18 *begin monitoring Monday	Lecture: Stream health/classification	Field lab: Stream health/classification
5: 9/24 & 25	Stream assessment data analysis	Computer lab: Historic data/stream assessment analysis
6: 10/1 & 2	Lecture: Stage, discharge, and rating curves	Field lab: Velocity-area stream gauging Due: Stream assessment (combined write-up for Morphology, & health/classification) Due: Historic data
7: 10/8 & 9	Lecture: Data loggers, sensors	Field lab: Data loggers Due: Stream gauging
8: 10/15 & 16	Proposal presentations	Proposal presentations

9: 10/22 & 23	Lecture: Tracers	Field lab: Tracers and stream velocity
10: 10/29 & 30	Tracer analysis	Work session *Independent project updates
11: 11/5 & 6	Lecture: Stream metabolism	Computer lab: Metabolism Due: Tracers and stream velocity
12: 11/12 & 13	Lecture: Watershed export	Field trip: Professional development Due: Metabolism
13: 11/19 & 20	Presentation overview/work session	Work session *Independent project updates
14: 11/26 & 27	Fall break – no class	
15: 12/3 & 4	Work session	Presentations
16: 12/10 & 11	Presentations	Presentations and wrap up Due: Stream report

Grading:
Quizzes and in-class participation:	10%
Labs:	80%
Final report/presentation:	10%

Course grades will be based on the following scale:

A	≥93%	A-	≥90%
B+	≥87%	B	≥83%
B-	≥80%	C	≥70%
D	≥60%	F	<60%

Expectations:
Attendance: You are responsible for attending all classes.

Assignments: All assignments are due on the assignment due date. Late assignments lose 10% of the assignment grade per week after the assignment due date, up to a maximum point loss of 20% (i.e., assignments will not be accepted after 2 weeks have passed beyond the due date).

Academic integrity: You are responsible for adhering to all university policies on academic integrity and student conduct. TILT has a number of resources for students related to writing and study skills: http://tilt.colostate.edu/integrity/resources/forstudents.cfm.