

**Advanced Water Resource Economics**  
AREC 542, Spring 2020  
Colorado State University

Instructor: Christopher Goemans  
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Office: B-312 Clark Building

Course website: Canvas

Class Time: 9:30 – 10:45 (Tuesday/Thursday)  
Location: Wagar 107

Office Hours: Wednesdays 9:00-11:00 and by appointment.

**Textbook:** Water Resource Economics, Griffin, 2nd Edition (2016)

Note: This textbook is one of many resources that we will use in this course. We will not be working directly out of the textbook. I recommend that you use it as a reference for the course, but not as your single source of information.

**Course Overview:** This course will provide students with an in-depth look at the role of economics in water resource planning. In addition covering the economic theory and practical background of water resource management, significant time will be spent developing the tools most frequently utilized by water resource economists. This includes Linear Programming, Cost/Benefit Analysis, Residual Imputation methods, Regression Analysis, Input-Output Modeling, Survey Design and Implementation, and Cost of Avoidance Techniques.

**Objectives:**

- Students will understand the role of water as an economic input and consumable good in the context of advanced microeconomic consumer and producer theory
- Students will be familiar with or capable of incorporating the following techniques into water resource planning efforts
  - Linear Programming
  - Cost/Benefit Analysis
  - Residual Imputation methods
  - Regression Analysis
  - Input-Output Modeling
  - Survey Design and Implementation
  - Cost of Avoidance techniques

## Student Evaluation:

Weekly-ish Exercises (x) <sup>1</sup>	100 points (100/x)
Midterm (3/12/2020)	100 points
Paper Presentations*	50 points
Paper*	100 points
Total	350 points

Exams will be administered only on the scheduled dates listed above. NO make-up exams OR quizzes will be given unless the student notifies the instructor prior to the date of the exam that she/he will be gone for a University approved trip. Students missing exams due to DOCUMENTED medical reasons will be allowed to make up the exam. Substitute grading assignments will not be offered to those students who miss exams or quizzes. Reasonable accommodations will be given to those persons with documented disabilities.

You have one week after receiving a graded assignment or exam to provide the instructor with a written grade appeal. The appeal should identify which question(s) is believed to be incorrectly scored. Note that the instructor reserves the right to re-grade the entire work, potentially resulting in a lower overall grade.

\*I will post a document on course website regarding more information about the paper/presentations and how they will be graded.

## Additional Notes/Thoughts:

- It is YOUR responsibility to be prepared for the exams and to understand what is expected for the written assignments. If you have questions come to me BEFORE the exam or the assignment is due.
- Cheating will NOT be tolerated. Cheating will result in a zero score on the exam/assignment and possibly a failing grade in the course.
- Turn off cell phones.
- If you are finding that you have difficulties in this course, ask for help as soon as possible. The instructor wants you to do well and meet your academic goals. The sooner you ask for help, the sooner you can get back on track.

***Be prepared to contribute in class. You will be expected to. So, !!!Speak Up!!! Class is more fun when you share your opinions/thoughts on the topics we are covering.***

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<sup>1</sup> The Weekly-ish exercises will count for roughly  $\frac{1}{3}$  of your course grade. Only x of this assignments will be graded. After each assignment has been turned in, I will flip a coin to determine whether or not the assignment will be graded. A minimum of 4 assignments will be graded. If with 4 weeks remaining no assignments have been graded to that point then the final 4 will be graded. If with 3 weeks...etc.