

What would you expect in the Final exam?

Two questions and four problems. For the problem section, only three are obligatory, you can choose the 3 problems that you feel more comfortable. If you do the remaining problem, it will count as extra points.

What about the “Questions”?

The two questions are based on the readings and the presentation for the guest speakers.

For the reading assignments, these are the topics that you should focus on:

- Rivers for life. Make a good summary of the topics explained in these readings, mostly in ecosystem services, human activities on freshwater ecosystems, ecological functions performed by different types of flows, and the consequences of the absence of these ecological flows.
- DWR Sustainable Groundwater Management Act document. Make sure you know what is SGMA, what are the undesirable results, and what is a GSP and a GSA
- Nitrate contamination in Tulare Lake and Salinas Valley.

For the Guest Speaker’s presentations, focus on the presentation of Sean White and Tamara Alaniz:

- What is the problem/techniques that they talked about?
- What were their main “Key point” that each of them talked about?
- What are their main concerns/challenges/problems?
- What actions/strategies they are taken to improve their water management and to solve their problems?

What about the “Problems”?

The four problems are based on Exercises 5 (Optimization Models), 7 (Cost Benefit Analysis and Incremental Benefit-Cost Method), and 8 (Expected Monetary Value). The main topics of these exercises are

- Optimization models. Make sure you know how to define an Objective function and the constraints of a linear optimization program, how to draw a feasible region, be able to evaluate the vertices (corners) of the feasible region, and to determine the optimal values
- Cost – Benefit Analysis - Make sure that you know how to obtain the present and annual cost for two alternatives, and how to compare them. Make sure you know how to estimate the Net Benefits.
- Incremental Benefit – Cost Method. Make sure that you know how to obtain the annual values for present value costs. Also make sure you know how to perform all the steps necessary to use this method

- Expected Monetary Value and Decision Trees.- Make sure you know how to use joint probabilities to estimate: (a) Marginal Probabilities, (b) Conditional probabilities, (c) joint probabilities, (d) the Expected Monetary Value and (e) how to build a decision tree.

What should I bring to the exam?

The exam is a closed book and closed notes exam. It is prohibited the use of cellphones, smartphones, tablets, computers, laptops, any music player, or any electronic device except for calculators. No exchange of calculator is allowed.

You can bring:

Your own calculator

One sheet of paper with notes for the exam (both sides) is allowed

Some water.

If I have any question about a topic, what should I do?

Please come to my last office hours: Wednesday June 7th, 2:30 to 4 pm

Something very important, make sure you know how to use your calculator!!!