Syllabus -- Geography 208
Water Resources Systems

Instructor: Hugo A. Loáiciga

Time: Lecture: Tuesday 5-7:50 pm Room 3620 Ellison Hall;
Laboratory: Thursday Room 3620 Ellison Hall Thursday 6 -7:50 pm

Office hours: Tuesday Thursday: 11:00-12:00 am; 3626 A Ellison Hall, or by appointment.

Objectives: Water Resources Systems is the discipline concerned with the study of hydrology-
human-environment interactions. It deals with the development and application of quantitative
methodologies to analyze and synthesize water resources processes and problems, and to plan,
design, and simulate water resources systems. In this course, we shall cover a variety of water
resources subjects, such as water-resources economics, flood control, water treatment,
groundwater management, reservoir operation, hydropower production (micro and small scale),
mathematical programming. The emphasis will be on the analysis of water resources systems and
on the determination of best-management strategies based on a variety of quantitative methods.
The course’s overall goal is to prepare the student to conceptualize and formulate water-
resources problems within a quantitative framework and to derive solutions to those problems
using systematic approaches.

Prerequisites: hydrology, ground-water hydrology, mathematical programming, statistical
methods.

Notes and textbooks: class notes, articles to be distributed in class; plus several reference
textbooks which will be listed in class if necessary.

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GRADING

Homework and projects 80%
Final examination (Dec. 7; 5-8 pm) 20%