Fall 2010

CIVE 512
IRRIGATION DESIGN AND MANAGEMENT

Instructor: Dr. José L. Chávez
Office: B-210 Engineering Building
Phone #: 491-6095
Fax #: 491-7727
E-mail: jose.chavez@ColoState.edu

Course Description:

Irrigation performance criteria. Design, management and evaluation of surface, sprinkler and trickle irrigation. Selection of irrigation systems.

Prerequisite: CIVE 322 or CIVE 425.

Note: the preferred prerequisite is CIVE 425 – Soil and Water Engineering, or its equivalent. However, due to the previously limited availability of this course, a background in hydrology (such as CIVE 322), soil and crop sciences and/or watershed science is appropriate.

CIVE 512 – Irrigation Design and Management

Course Objective:

To provide an understanding of the soil and water engineering principles which are necessary for the successful implementation of irrigation systems, including selection, design, management and evaluation.

Outcomes:

On completion of the course, the student will understand and be able to:
1. Apply irrigation performance criteria in assessing irrigation system performance.
2. Select a suitable irrigation system for a given situation.
3. Complete the basic design of irrigation systems: surface, sprinkler and trickle.
4. Specify management guidelines for a specified irrigation system.

**Methods of Evaluation:** Students will be evaluated on the basis of examinations and homework. There will be two mid-term exams and a comprehensive final exam. The course grade will be determined based upon the following percentages:

- **Exams (2)** = 40% (20 ea.)
- **Final examination** = 30%
- **Homework** = 30%

----------
Total =100%

Term grades for this course will use the +/- grading system as described in the CSU catalog. The following scale will be used: A ≥ 93; A- ≥ 90; B+ ≥ 87; B ≥ 83; B- ≥ 80; C+ ≥ 77; C ≥ 70; D ≥ 60; F < 60