



Course Number Course Name	ES 416 IRRIGATION AND DRAINAGE
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	You will participate in the design, management, and evaluation of irrigation and drainage systems, addressing the concepts and processes of system design, soil-water-plant relationships, evapotranspiration and water requirements, effective water use, irrigation scheduling, infiltration, and irrigation systems planning.
Student Learning Outcomes/Objectives /Competencies of the Course	<ol style="list-style-type: none"> 1. To develop an understanding of the terminology, techniques, and designs of irrigation systems. 2. To develop an understanding of the different methods of irrigation, the advantages and limitations of each and how they relate to economics, ecology specific species. Particular emphasis will be placed on Western and Southwestern States irrigation systems, historical context, traditional practices, and modern innovations, but appropriate examples from across the world will be used. 3. Understand and apply concepts of application rate, infiltration, seepage, leaching, lateral movement, flow rate, working pressure, and different forms of evaporation. 4. To develop an appreciation for the role of irrigation and drainage within the broader context of managing agriculture, watersheds, and ecosystems.
College-Wide Student Learning Outcomes	<ol style="list-style-type: none"> 1. <i>Critical Thought</i> <i>Critical Thought will be assessed by testing of concepts related to Irrigation and Drainage.</i>