

NORTHERN NEW MEXICO COLLEGE



Course Number	ENVS 4420 Ecology and Hydrology of Southwestern River Systems
Course Name	
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	Students will experience the unique geology, ecology, and dynamic hydrology of the southwestern U.S. along the diverse ecosystems of New Mexico and Arizona. The curriculum includes three days of classroom lecture followed by multi-day field trips to ecologically diverse regions representative of the Chihuahuan and Sonoran deserts, southwestern forests and grasslands. The field trip will include a diverse set of hikes, lectures, and project investigation multiple aspects associated with the evolution of Southwest river and riparian systems including the geological, ecological, natural resources, the social and political ward issue and management practices. The ecology of “sky islands,” deserts, forests and range of Southwest Arizona includes trips to the Arizona Sonoran Desert Museum and Chiricahua National Park. (Spring only) The banks of the major river systems in New Mexico will be examined through a multi-day whitewater field trip on the Rio Chama and or the upper Rio Grande (Summer only).
Course Student Learning Outcomes/Objectives /Competencies	<ol style="list-style-type: none"> 1. Understand major concepts and terminology in field ecology 2. Identify unique ecological characteristics of New Mexico 3. Familiarity with flora and fauna of the Southwestern New Mexico 4. Identify human impacts on natural systems and natural system responses.
College-Wide Student Learning Outcomes measured (General education courses only)	
Program Student Learning Outcomes measured	<ol style="list-style-type: none"> 1. Apply systems theory, concepts, and methodologies to critically analyze and understand interactions on an ecological level.