ESCI Field Camp intended Student Learning Outcomes

Actual outcomes will be determined by interaction between student context factors (worldviews; interests; identities; prior knowledge, skills, and experiences; motivations; expectations; personal needs)*, program implementation effectiveness, and external factors such as weather events.

Outcome Category	**Intended Learning Outcome**
Content Knowledge	Understand research project development process
	Ability to analyze and evaluate riparian conservation issues
	Understand riparian system changes after dam removal
	Understand wildlife roles in ecosystem function
	Understand probabilistic sampling designs and field applications
	Understand rapid structure and navigation
Science & Field Skills	Proficiency in research project design and implementation
	Integrate multiple perspectives and kinds of information
	Data collection in dynamic field environments
	Wildlife identification skills
	Scientific communication ability: aural, visual, written
	Understanding and skills in Leave No Trace practices
	Proficiency in field and river safety protocols and practices
	Development of outdoor skills
Transferrable Skills	Improved communication skills
	Improved collaboration skills
	Improved problem-solving skills
	Improved critical thinking ability
	Expedition behavior in concept and practice
Nature of Science	Increased understanding of the nature of field science
	Stronger sense of life as a scientist
	Increased awareness of scientific ethics
Personal Gains	Increased personal self-efficacy
	Increased confidence in strength, stamina, agility
	Increased comfort in field settings
	Increased grit; perseverance through challenges
Professional Connection	Refinement of professional goals
	Greater sense of belonging in scientific community
	Development of science identity
	Increased scientific self-efficacy
Broader Relevance	Increased stewardship intention and behavior
	Increased connection to societal issues or problems
	Development as informed members of society

*O'Connell, K., K. L. Hoke, M. Giamellaro, A. R. Berkowitz, and J. Branchaw. 2022. A Tool for Designing and Studying Student-Centered Undergraduate Field Experiences: The UFERN Model. *BioScience* 72(2):189-200. doi: 10.1093/biosci/biab112