

Grand Canyon Semester: Wilderness Explorations and Landscape Studies

Fall Semester 2018

August 26th – December 14th (exact dates TBD)



GCS Staff (*tentative working list*):

Primary Professors...

Joel Barnes, GCS Director, Faculty, Prescott College

David Lovejoy, Senior Faculty, Prescott College

Larry Stevens, Science Curator, Museum of Northern AZ

Nicholas Bauch, Geographer-in-Residence, Stanford University

Mathieu Brown, Faculty, Prescott College

Jacob Fillion, Branch Chief, Environmental Education, GCNP

Guest Professors...

Michael Steinberg, The New College, University of Alabama

Tyler Nordgren, University of Redlands

Tom Fleischner, Faculty, Prescott College

Jeri Ledbetter, Springs Stewardship Institute

Faculty from the EcoLeague and CIEL consortia

Staff from Grand Canyon National Park

Field Assistant...

TBD

Textbooks (*working list*):

Newman. 2011. *The Grand Canyon Reader*. University of California Press.

Carothers & Brown. 1991. *The Colorado River Through Grand Canyon: Natural History and Human Change*. Univ. of AZ Press.

Moorhouse. 1996. *A Place Called Grand Canyon: Contested Geographies*. Univ. of AZ Press.

Price. 1999. *An Introduction to Grand Canyon Geology*. Grand Canyon Association.

Coder. 2000. *An Introduction to Grand Canyon Prehistory*. Grand Canyon Association.

Houk. 1996. *An Introduction to Grand Canyon Ecology*. Grand Canyon Association.

Anderson 2001. *Polishing the Jewel: An Administrative History of Grand Canyon National Park*.

NPCA. 2010. *State of the Parks, Grand Canyon National Park, Resource Challenges and Future Directions*. National Parks and Conservation Association.

Van Riper III, C. (ed.). 2010. *The Colorado Plateau IV. Shaping Conservation Through Science and Management*. Univ. of AZ Press.

Adler, Robert. 2007. *Restoring CO River Ecosystems: A Troubled Sense of Immensity*. Island Press.

Keller R., M. Turek. 1999. *American Indian and National Parks*. Univ. of AZ Press.

Course reader of selected readings.

Grand Canyon Semester Program Overview

Students receive 12 (or 16) semester credits from Prescott College that can be transferred back to their home institution. These credits consist of three (or four) distinct four-credit courses that are taught concurrently; one course helps students acquire the fundamental skills of wilderness expeditioning, leadership, backpacking, and whitewater rafting; the second course includes an introduction to landscape ecology, with a primary focus on exploring the interconnected landscapes of the Grand Canyon Ecoregion (geophysical, biological, cultural, and sociopolitical); the third course (not yet confirmed) explores the diverse and dynamic sociocultural and politico-economic landscapes of the Grand Canyon Ecoregion, past, present and future, and draws from the disciplines of human history, cultural geography, and human ecology; the fourth course examines public lands issues and management challenges in the Grand Canyon Ecoregion and includes student-directed research and teaching related to resource stewardship projects in Grand Canyon National Park.

Course Descriptions

Grand Canyon Semester WELS, Phase I: Expeditionary & Technical Skills for Rivers & Canyons. 4 lower division semester credits (AE)

This 4-course program is designed as a Wilderness Explorations & Landscape Studies (WELS) suite of courses at Prescott College. It embraces the integration of adventure education and environmental studies in a field-based setting. These particular courses focus on Grand Canyon and are part of a partnership between Prescott College and Grand Canyon National Park.

This course introduces students to trail- and river-based expeditionary skills through training, practice, and feedback, and builds on students' foundational knowledge and experience in geography and wilderness travel. A full-length river trip on the Colorado River through Grand Canyon, plus a backpacking trip, are included. Curricular topics include trip planning and logistics; equipment use and care; minimum impact camping techniques; map and compass navigation; whitewater rafting hydrology and raft-piloting techniques; risk assessment and management; and strategies for managing group dynamics and decision-making during collaborative, educational expeditions. We also investigate fundamental theories and current issues in expedition leadership. In the context of expeditions into remote country, students cultivate proficiency in outdoor technical skills related to backpacking, canyoneering, and whitewater rafting. A primary goal of this course is to enable students to accurately and efficiently assess expedition scenarios, and apply this to all aspects of planning and implementing extensive backcountry expeditions that are rooted in collaborative, service-based learning. The knowledge and skills gained in this course are fundamental to successful completion of the rest of the program.

Grand Canyon Semester WELS, Phase II: Landscape Ecology.

4 upper division semester credits (ES)

In this course, students adopt an interdisciplinary approach to studies in landscape ecology, and work on developing techniques for exploring, interpreting, and studying wild landscapes. We begin with an introduction to landscape ecology with a primary focus on exploring the interconnected landscapes of the Grand Canyon Ecoregion. The geo-physical, biological, socio-cultural, aesthetic, and politico-economic landscapes will be examined as distinct entities *and* as an interconnected mosaic of landscape layers. Topics covered include geomorphic processes and landscape evolution, weather and climate change, cultural astronomy, biogeography of flora and fauna, past and present roles of humans on the landscapes, artistic and literary interpretations of landscapes, and role of public lands in landscape preservation and conservation. While each of these topics is explored in the context of the Grand Canyon Ecoregion, this course also includes a comparative survey of similar regions across the globe. The course includes opportunities for students to engage with topical experts and guest speakers from a rich cross section of disciplines. Visits to museums, trading posts, and art galleries help round out the curriculum for this course.

Grand Canyon Semester WELS, Phase III: Cultural Geography of Grand Canyon

4 upper division semester credits (AE) (*not yet confirmed*)

This course compels students to take an up-close and in-depth examination of Grand Canyon's sociocultural landscapes. The dynamic cultural history of Grand Canyon's contested geographies involves a rich diversity of Indigenous and European cultures past and present. Students will come to understand how landscapes and cultures are intertwined, particularly when it comes to the rugged, inverted terrain of Grand Canyon. We will consider the give-and-take relationship that cultural groups have had, and still have with Grand Canyon, including historic and contemporary Indigenous Peoples, early European explorers, and adventure scientists, as well as today's industrial tourist. Finally, we will examine the region's cultural landscapes in the context of climate change, sustainability, the Anthropocene Epoch, and the pervasive influence of humans on the land.

Grand Canyon WELS, Phase IV: Teaching, Research, and Resource Stewardship on Public Lands.

4 upper division semester credits (ES)

Our primary goal in this course is two-fold; to engage in critical analysis of conservation and resource management challenges on public lands in the Grand Canyon Ecoregion, and for students to engage in teaching and self-designed research projects. Students apply their understanding of experiential education, group facilitation, and expedition leadership, as well as regional politics, cultural values, and landscape conservation. These topics serve as the foundation and framework for students to teach experiential lessons and conduct interdisciplinary research. Questions considered include: how do population growth, resource scarcity, and changing values determine our relationship to this fragile and stunning landscape?, how can we both protect a World Heritage Site, one of the "crown jewels" of America's National Park system, and still make it available to nearly five million visitors a year?, what are the rights of the native peoples whose ancestors lived in this canyon country for thousands of years?, and what are our responsibilities to this unique region of the Earth? In consultation with GCS faculty and park resource specialists, students will conduct research of their own design that is related to a resource stewardship project in Grand Canyon National Park, with the results presented at a GCS Symposium in a public venue.

Recommended Student Background:

This three-course program is designed for junior or senior year students with a passion for integrating adventure education and environmental studies into their undergraduate studies. While the primary focus of the course is on selected topics in environmental studies, students will also be expected to acquire the skills and knowledge necessary to safely participate in and lead wilderness expeditions that are collaborative, educational, and that include service learning and action-based research projects. *Students should already have completed foundational coursework in several of the following areas; natural history, ecology, earth science, life science, resource management, conservation biology, public lands management, and field-based adventure education.*

Prerequisite coursework:

Students must have completed the following Prescott College courses, *or similar courses from other institutions,*

- **2 courses in Adventure Education, such as** Wilderness Orientation, Outdoor Education and Recreation, Interpersonal Communication, Group Process for Adventure Educators, one of the WELS course offerings, Environmental Perspectives and Whitewater Rafting, or Wilderness First Responder.
- **3 courses in Environmental Studies, such as** Natural History and Ecology of the Southwest, Concepts of Ecology, Introduction to Earth Science, Weather and Climate, Wetland Ecology and Management, History of Conservation in America, Park and Wilderness Management, Conservation Biology, or Environmental Ethics.

Corequisite coursework:

Students must enroll in all three phases of *Grand Canyon WELS* concurrently.

Course related expenses:

Personal expenses are estimated at \$600-\$1000, and course fees are estimated at \$1200; the exact amounts will be finalized before registration.