CREATING a Culture OF Sustainability

For nearly two decades, Northern Arizona University has been integrating sustainability concepts into university policy and educational curriculum. This initiative requires instilling a philosophy throughout every facet of our campus community so that sustainability becomes a way of life. We live, learn, research, and advocate sustainability principles with the goal of meeting the needs of the 21st century to bring real, lasting change. Sustainability is an ideology we hope to instill in our faculty, staff, and students that will guide them through the rest of their professional and personal lives.

- Sustainable Living
- Learning Sustainability
- Researching Sustainability
- Stewardship and Advocacy

NORTHERN ARIZONA UNIVERSITY

Construction Management students assist with the building of a planetology field facility in Terapa, Mexico

Hands-On Learning

Northern Arizona University, with its perfect score in environmental and sustainablility academics by Sierra Magazine, provides broad and deep education and training in sustainability. All majors require a sustainability component. Students in any of the environmental and sustainability majors blend a required mix of classroom, laboratory, and field study with independent internships or research in their fields. More than 30 university laboratories and research centers provide undergraduate faculty-supervised research experiences. Faculty and staff internship mentors supervise students in projects in campus operations, student life, dining, energy and resource use, transportation, and ladscaping/gardening.

Academic Programs

School of Earth Sciences and Environmental Sustainability is a newly developed school with more than two dozen full-time faculty. It offers undergraduate, MS, and PhD programs integrating the physical, biological, ecological and social dimensions of the environment and sustainability. Curriculum focuses on the interactions of the earth's geologic, hydrologic, atmospheric, biological and human systems; on climate change; on environmental and sustainability challenges; and on social, economic, and policy tools used to address these challenges.

The **Construction Management** program emphasizes sustainable building practices throughout its curriculum

Engineering programs are leading the way in renewable energy research. The **Sustainable Energy Laboratory** offers students valuable research experience in wind, solar, and other renewable energy technology.

The **School of Forestry**'s nationally regarded programs and research centers focus on forest health and vegetation management, fire ecology and carbon flux impact, ecological restoration, biological conservation, and watershed management.

NAU environmental sustainability degree programs include

- Bachelor's degree programs in environmental and sustainability studies, Environmental Sciences, Construction Management, Civil and Environmental Engineering, Forestry, Biology
- Professional Science Master's program in Climate Science and Solutions
- Master of Arts in Sustainable Communities
- Master of Science in Environmental Sciences and Policy
- Interdisciplinary doctoral program in earth sciences and environmental sustainability

Learning Sustainability

Focus on "issue-oriented" education concerning global challenges including energy and water resources science and policy, global climate change, biodiversity and habitat loss, landscape conservation and preservation.

"Exemplify a sustainable, innovative, and effective university community...(and) model environmentally responsible and sustainable operations and education"

—NAU Strategic Plan

Sustainable Living

"Exemplify a sustainable, innovative, and effective university community by modeling environmentally responsible and sustainable operations and education."

—NAU Strategic Plan

Building Green

Upon signing the American College and University Presidents' Climate Commitment, NAU made a commitment that all new construction would be LEED Silver certified. In the last few years, NAU has become a leader in "green" construction for college campuses. In 2006 NAU's Applied Research and Development was the third highest ranked green building in the world, the highest in higher education, and is now one of many LEED buildings on campus.

Applied Research and Development	Platinum certified
The W. A. Franke College of Business	Gold certified
Engineering and Technology	Gold certified
Extended Campuses	Gold certified
South Campus Recreation Field	Silver certified
Hotel and Restaurant Management	Silver certified
Liberal Arts Building	Silver certification
Health and Learning Center*	Gold certification
Native American Cultural Center*	Silver certification
Residence Life Warehouse*	Silver certification

**In progress*

Waste Management

Northern Arizona University first began its recycling program in the 1980s. Today the campus' Waste Minimization Action Team is researching and implementing multiple reduce, reuse, and recycle initiatives across the campus.

Transportation

Approximately 70% of students use more sustainable commuting options than driving their car alone. University employees have free access to city buses and the Yellow Bike Program offers free bicycles to students commuting between classes. Across NAU's campus their are multiple bike storage spaces, specific bike routes, and the university has been designated a silver-level Bicycle Friendly University as awarded by the League of American Bicyclists.

Growing and Eating Green

Campus Dining prioritizes the purchasing of locally sourced food when seasonally available. They eliminated the use of food trays to cut down on food waste, and provide organic, vegan, and vegetarian options in its campus markets and dining outlets. The department also supplies compost for the student-run organic gardens and make regular donations to local food banks.

Conservation

WATER

The Flagstaff campus uses over 30 million gallons of reclaimed water each year to irrigate the campus and for non potable uses. NAU has installed low-flow toilets, thousands of low-flow faucets and shower heads, and has added water bottle refill stations across campus. Conservation campaigns inspire students to take shorter showers by asking them to "Strive for Five."

LAND

NAU's School of Forestry and the Arizona State Forestry Division coordinate to manage the 47,500 acre Centennial Forest to provide research and education opportunities, reduce the risk of wildfire, restore damaged ecosystems, and provide ecosystem services such as clean water, carbon storage, wildlife habitat, timber, and livestock forage.

ENERGY

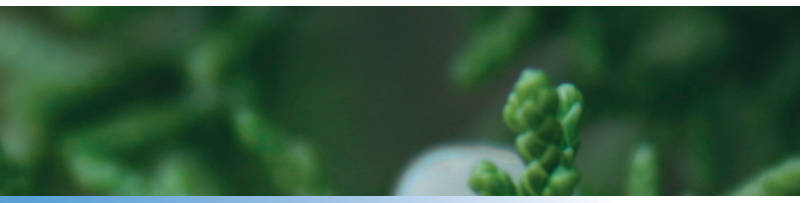
- NAU is a national leader in renewable energy research, such as wind and solar power.
- Our campus-wide monitoring system can better regulate energy consumption of each building.
- NAU has invested 18 million dollars in an energy efficiency and conservation upgrades.
- The university has implemented popular conservation initiatives that inspire students and staff to be active participants in the educating of their peers in regards to energy conservation.

Stewardship & Advocacy

"Advance the internationalization of the university to prepare students for global citizenship. Promote issues of diversity, civility, democracy, citizenship, and community engagement and collaboration."

—NAU Strategic Plan

Collaboration is the key to creating consensus and lasting change. Northern Arizona University partners with local, state, and national agencies to research and educate. It is our mission to find solutions and be a catalyst for positive change.



NAU is working towards its goal of carbon neutrality

Campus Community

The NAU **Global Learning Initiative** seeks to engage students on important issues that address the quality of human life on our planet and how human actions impact the earth. Students learn to understand environmental sustainability in local and global terms.

The **Center for International Education** provides leadership in the development and execution of the university's strategic plan for the internationalization of the campus and curriculum.

The **Environmental Caucus** is NAU's grassroots group dedicated to facilitating creative and strategic communication across campus to advance the institutional commitment to sustainability.

Regional Partnerships

The **Program of Community, Culture, and Environment**, facilitates interdisciplinary collaborations and partnerships among diverse stakeholders to promote just economic practices that care for, enhance, and empower communities, cultures, and the environment.

NAU is a collaborative partner with the **Sustainable Economic Development Initiative**. SEDI's goal is to support regional economic development while maintaining stewardship of natural resources.

The **Partnership for Native American Cancer Prevention** collaborates with **NAU, National Cancer Institute, National Institue for Health** and the **Arizona Cancer Center** to find solutions for cancer disparities among Native American communities.

National Leadership

NAU was a charter signatory of the **American College and University Presidents' Climate Commitment.** The university has pledged to become carbon neutral by 2020.

The university has been selected as one of four locations in the country to house the **National Institute for Climate Change Research**. The center mobilizes researchers to study potential effects of climate change in the western United States.

Global Initiatives

Faculty and students from the university's **Global Engineering Outreach** group organize students, professors, professionals, and community members to travel to developing countries to help provide basic sustainable infrastructure.

The **Peace Corps** recently selected NAU's **School of Forestry** to offer a **Peace Corps Master International Program** designed for American students who want to earn a graduate degree while serving as a Peace Corps volunteer.

Researching Sustainability

NAU cultivates three areas of basic and applied research excellence: Biotechnology/ Bioscience and Health; Environment and Sustainable Systems; and Regional Social and Economic Challenges.

The university encourages and facilitates faculty and student research through more than 30 laboratories and research centers. Faculty and students provide important input in the global discussion concerning the environment and climate change. Whether the issue is ecological restoration, climate change, or developing renewable energy technology, the university is committed to finding sustainable solutions to future challenges. A few examples include:

Geology student evaluating core samples taken from an Alaskan lake to determine historical temperature variations.

The **Merriam Powell Center for Environmental Research** promotes cross-disciplinary research and education to understand critical environmental processes and the implications of change resulting from human activities.

Colorado Plateau Biodiversity Center promotes the preservation of biological diversity through research, education, and public outreach. More than one-half million specimens of vertebrates, plants, invertebrates, fungi, microorganisms, fossils, and genetic material are maintained in CPBC collections.

Institute for Sustainable Energy Solutions advance sustainable energy systems by performing novel research to expand our understanding and the utilization of renewable energy systems and resources.

The **Ecological Restoration Institute** provides critical research to help solve the problem of unnaturally severe wildfire and degraded forest health throughout the American West. The goals of ERI go beyond scientific discovery to the meaningful application of scientific knowledge that makes a difference for western forests.

The **Landscape Conservation Initiative** forges new solutions to environmental challenges through a three-pronged approach: applied biological science, collaborative planning, and field-based educational experiences.

Centers for Ecosystem Science and Society seeks to understand ecosystems, how and why they change, and their role in shaping the Earth's future. Their research probes the biology, chemistry, and geology of the biosphere, bringing tools and perspectives from ecosystem science to the ecology of the integrated earth.

The University has over 30 laboratories and research centers.

nau.edu/green

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