

The University of Arizona

The following information was submitted through the [Campus Sustainability Data Collector](#) to be shared with Sierra magazine for consideration in their Cool Schools publication.

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The information presented in this submission is self-reported and has not been verified by AASHE or a third party. If you believe any of this information is erroneous, please see the [process for inquiring](#) about the information reported by an institution.

Education & Research

Co-Curricular Education

This subcategory seeks to recognize institutions that provide their students with sustainability learning experiences outside the formal curriculum. Engaging in sustainability issues through co-curricular activities allows students to deepen and apply their understandings of sustainability principles. Institution-sponsored co-curricular sustainability offerings, often coordinated by student affairs offices, help integrate sustainability into the campus culture and set a positive tone for the institution.

Credit
Student Sustainability Educators Program
Student Sustainability Outreach Campaign
Sustainability in New Student Orientation
Sustainability Outreach and Publications
Student Group
Organic Garden
Model Room in a Residence Hall
Themed Housing
Sustainable Enterprise
Sustainability Events
Outdoors Program
Themed Semester or Year

Student Sustainability Educators Program

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution coordinates an ongoing peer-to-peer sustainability outreach and education program for degree-seeking students. The institution:

- Selects or appoints students to serve as educators and formally designates the students as educators,
- Provides formal training to the educators in how to conduct outreach, and
- Offers faculty or staff and/or financial support to the program.

This credit focuses on programs for degree-seeking students enrolled in a for-credit program. Continuing education and/or non-credit students are excluded from this credit.

Student clubs or groups, which are covered by *Co-Curricular Education Tier Two Credit 1*, are not eligible for this credit unless the group meets the criteria outlined above.

"---" indicates that no data was submitted for this field

Total number of degree-seeking students enrolled at the institution :

39086

Program name (1st program) :

Eco Reps

Number of students served by the program to whom peer-to-peer sustainability outreach and education is offered (1st program) :

6400

A brief description of the program, including examples of peer-to-peer outreach activities (1st program) :

Eco Reps is student peer-to-peer outreach organization in which students from the residence halls can learn about and advocate for more sustainable living. Eco Reps are responsible for running Earth Hour, organizing and bolstering Recyclemania in the residence halls, and for developing hall specific programming around sustainability.

A brief description of how the student educators are selected (1st program) :

Eco Reps are self-selected in the Residence Halls. Each Hall Council has one position, Director of Sustainability, that residents can run for. This individual is charged with representing his or her Hall Council at all Eco Rep meetings as well as incorporating sustainability concepts and practices into Hall Council programming. Each Hall Council Eco Rep is responsible for running Recyclemania at each hall as well as creating and implementing sustainability related programming.

In addition to the Hall Council position, residents can become general Eco Reps for their Residence Hall. The general Eco Reps help the Director of Sustainability with programming.

A brief description of the formal training that the student educators receive (1st program) :

All Eco Reps attend presentations created by Residence Life which cover the triple bottom line of people, planet, and profit. Eco Reps take the information imparted through the presentation to their respective Hall Councils and communities.

A brief description of the staff and/or other financial support the institution provides to the program (1st program) :

Eco Reps have a budget around \$3600 dollars coming from dedicated funds from Residence Life, aluminum recycling, and Recyclemania. Individual Hall Councils allocate may allocate more money to Eco Rep programs upon request.

Staff support of Eco Reps comes in the form of Residence Life's Director of Sustainability leading the Eco Rep Program with support from the Residence Life Recycling Crew. The Director and the Recycling Crew provide guidance and technical expertise for the program.

The website URL for 1st Program :

http://www.life.arizona.edu/recycle/getting_involved.asp

Program name (2nd program) :

The Arizona Blue Chip Program

Number of students to whom peer-to-peer sustainability outreach and education is offered (2nd program) :

400

A brief description of the program, including examples of peer-to-peer outreach activities (2nd program) :

Arizona Blue Chip is a leadership program on campus interested in developing leaders that are capable of leading while being ethical, socially just, and environmentally aware. The program provides outreach through community partnerships and individual projects. Some of these projects include working with YWCA of Tucson, working with Mansfeld Middle School and Tucson Academy of Leadership, Sahuaro Council of Girl Schouts, the Watershed Management Group in conjunction with the Rincon Heights Neighborhood Associations, the Somali Bantu Association of Tucson, and Imagine Greater Tucson.

A brief description of how the student educators are selected (2nd program) :

Students apply for the program by answering several questions. A graduate assistant then selects students based off of how complete, concise, appropriate, and the indicated level of interest in the response.

A brief description of the formal training that the student educators receive (2nd program) :

All students attend weekly team meetings with Blue Chip Team Leaders. Students in their first year take a course on the foundations of leadership. As students progress through the program they become team leaders or teaching assistants for the program which require taking specific classes on the curriculum that they are to teach and teaching methods.

Blue Chip has four phases. Each phase is a step toward exercising leadership skill with the first being Engage, then Learn, followed by Practice, and ending with Lead. Phase 3 and 4 students are responsible for the majority of the teaching of new students in addition to facilitating projects engaging the greater community at large.

A brief description of the staff and/or other financial support the institution provides to the program (2nd program) :

There is a dedicated staff of five people for the program including two graduate assistants. The program is funded through a membership fee and through partnerships with organizations in the community.

The website URL for 2nd program :

<http://arizonaleadership.orgsync.com/org/bluechip/overview>

Program name (3rd program) :

Students for Sustainability (SfS)

Number of students to whom peer-to-peer sustainability outreach and education is offered (3rd program) :

39086

A brief description of the program, including examples of peer-to-peer outreach activities (3rd program) :

Students for Sustainability is student run organization with Associated Students of the University of Arizona (ASUA). Students for Sustainability provides internships for students to learn about and provide project management skills for sustainability related projects. Some of their most recent work has included organizing UA Earth Day, running Compost Cats (an on campus composting project), creating two community gardens on campus, and organizing a unified effort around sustainability through the Ecoalition club outreach program in addition to actively engaging students through the Grassroots volunteer opportunity program.

A brief description of how the student educators are selected (3rd program) :

Students for Sustainability has a dedicated administrative staff, interns, and volunteers. The administrative staff consists of an executive director, an administrative director and a graduate assistant, all of which are selected by the Associate Students of the University of Arizona (ASUA). These individuals are responsible for running the Grassroots student volunteer program, Ecoalition which coordinates club activities related to sustainability, and individual projects such as Compost Cats, Garden in the Desert, and the Recycle Team.

Interns are selected through a competitive application process that includes short answer written questions and phone interviews with either the executive or administrative director.

Volunteers are encouraged to sign up to help with particular projects based upon their respective time commitments.

A brief description of the formal training that the student educators receive (3rd program) :

The administrative staff and interns of Students for Sustainability learn to action plan, manage complex projects, communicate effectively across the UA landscape and how to conduct media relations and outreach efforts. These skills are taught through a weekend retreat and through assignments and hands-on experience.

Additionally, interns learn specific skills according to which project an intern selects for the year. Examples include operating large farm machinery for composting, identification of recyclable material for the recycling project, and contract management for the gardening project.

A brief description of the staff and/or other financial support the institution provides to the program (3rd program) :

The University of Arizona supports Students for Sustainability with financial funding and assigned UA personnel. Projects are financially supported through an annual budget allocation of \$5,000 from ASUA. If more funds are needed they are acquired through fundraising.

Students for Sustainability is assigned three advisors including two staff of UA Student Affairs and one graduate assistant. Additionally, Students for Sustainability receives support from the ASUA Administrative Vice President and from the Office of Sustainability.

The website URL for 3rd program :

http://sustainability.asua.arizona.edu/Site/Home_2.html

Program name (All other programs) :

Number of students to whom peer-to-peer sustainability outreach and education is offered (All other programs) :

A brief description of the program, including examples of peer-to-peer outreach activities (All other programs) :

A brief description of how the student educators are selected (All other programs) :

A brief description of the formal training that the student educators receive (All other programs) :

A brief description of the staff and/or other financial support the institution provides to the program (All other programs) :

The website URL for all other programs :

Student Sustainability Outreach Campaign

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution holds at least one sustainability-related outreach campaign directed at students. The campaign yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution, a student organization, or students in a course.

To measure if the campaign yields measurable, positive results, institutions should compare pre-campaign performance to performance during or after the campaign.

The campaign could take the form of a competition (such as a residence hall conservation competition), or a collective challenge (such as a campus-wide drive to achieve a specific sustainability target).

The campaign may focus on one or more sustainability issues, but educating students is a primary feature of the campaign.

The campaign may reach additional campus members (faculty, staff, visitors, etc.) as long as students are one of the audiences of the campaigns.

The following impacts are not sufficient for this credit:

- Increased awareness
 - Additional members of a mailing list or group
-

"---" indicates that no data was submitted for this field

Does the institution hold a campaign that meets the criteria for this credit? :

Yes

The name of the campaign(s) :

Recyclemania

A brief description of the campaign(s) :

UA participates in Recyclemania as a whole university but also holds a Recyclemania competition for the Residence Halls. During the ten week program, the university promotes recycling in the Student Union, Facilities Management, and Residence Life through greater advertising and awareness campaigns. Facilities are encouraged to use less materials and power during this period.

A brief description of the measured positive impact(s) of the campaign(s) :

Recyclemania allowed UA as a whole to recycle 1,025,688 pounds of material in ten weeks.

Recyclemania in the Residence Halls created positive impacts in the areas of electricity conservation and recycling. The 2010 numbers are summarized below.

Electricity saved amounted to 1516 MMBTUs, which resulted in saving 275.702 tons of CO2 from being emitted in the air and 111.7 million gallons of water being used.

Recycling and waste reduction through Recyclemania resulted in total 21.8 tons of material being recycled, an increase of 6.9 tons over that of 2009.

Recycling Impact by material type:

Paper: 15.4 tons, resulting in saving 261 trees and 37.5 tons of CO2 from being emitted into the air, and approximately 107,000 gallons of water being used.

Plastic: 7.7 tons, resulting in saving 919.8 gallons of gasoline.

Aluminum: 0.68 tons, resulting in saving 1598 gallons of gasoline.

The website URL where information about the sustainability outreach campaign(s) is available :

http://www.life.arizona.edu/recycle/recycle_mania.asp

Sustainability in New Student Orientation

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution includes sustainability prominently in its new student orientation activities and programming. Sustainability activities and programming are made available to all new students and are intended to educate about the principles and practices of sustainability.

Because orientation activities vary from one institution to another, prominent inclusion of sustainability may not take the same form on each campus. When reporting for this credit, each institution will determine what prominent inclusion of sustainability means given its particular context.

As this credit is intended to measure sustainability being infused throughout the institution, program or discipline-level orientations are not included in this credit.

"---" indicates that no data was submitted for this field

Does the institution include sustainability prominently in new student orientation? :

No

A brief description of how sustainability is included prominently in new student orientation :

Sustainability as a key component in New Student Orientation is under development.

The website URL where information about sustainability in new student orientation is available :

Sustainability Outreach and Publications

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution produces outreach materials and/or publications that foster sustainability learning and knowledge. The publications and outreach materials may include the following:

- A central sustainability website that consolidates information about the institution's sustainability efforts
 - A sustainability newsletter
 - A vehicle to publish and disseminate student research on sustainability
 - Building signage that highlights green building features
 - Food service area signage and/or brochures that include information about sustainable food systems
 - Signage on the grounds about sustainable groundskeeping strategies employed
 - A sustainability walking map or tour
 - A guide for commuters about how to use alternative methods of transportation
 - A guide for green living and incorporating sustainability into the residential experience
 - Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat
 - Other
-

"---" indicates that no data was submitted for this field

Does the institution have a central sustainability website that consolidates information about the institution's sustainability efforts? :

Yes

A brief description of the central sustainability website that consolidates information about the institution's sustainability efforts :

The University of Arizona's sustainability website is a descriptive portal for environmental sustainability at the university. There is information on academics, research, leadership, and students involved with sustainability.

The website URL for the central sustainability website that consolidates information about the institution's sustainability efforts :

<http://sustainability.arizona.edu/>

Does the institution have a sustainability newsletter? :

Yes

A brief description of the sustainability newsletter :

UA Environment Weekly is an environment and sustainability Listserv that keeps students, faculty, staff, and the public informed and up-to-date on seminars, presentations, workshops, conferences, and other events; funding opportunities; environmental and sustainability news; course offerings; and much more at the UA.

The website URL for the sustainability newsletter :

<http://portal.environment.arizona.edu/>

Does the institution have a vehicle to publish and disseminate student research on sustainability? :

No

A brief description of the vehicle to publish and disseminate student research on sustainability :

The website URL for the vehicle to publish and disseminate student research on sustainability :

Does the institution have building signage that highlights green building features? :

Yes

A brief description of building signage that highlights green building features :

Buildings that have green building features have a sign post outside the building explaining what feature or process that allows the building to be considered sustainable.

The website URL for building signage that highlights green building features :

Does the institution have food service area signage and/or brochures that include information about sustainable food systems? :

Yes

A brief description of food service area signage and/or brochures that include information about sustainable food systems :

University of Arizona Dining Services proudly displays signs indicating whether restaurants have organic or local food menu options. This is done most prominently at The Cellar and Froyo.

The website URL for food service area signage and/or brochures that include information about sustainable food systems :

Does the institution have signage on the grounds about sustainable grounds-keeping strategies employed? :

No

A brief description of signage on the grounds about sustainable grounds-keeping strategies employed :

The website URL for signage on the grounds about sustainable grounds-keeping strategies employed :

Does the institution have a sustainability walking map or tour? :

Yes

A brief description of the sustainability walking map or tour :

From August to April, the public is invited to visit key campus locations where efforts have been made to create sustainable environments using water harvesting, solar technology or responsible landscape techniques such as xeriscaping or organic land management.

The website URL of the sustainability walking map or tour :

http://externalrelations.arizona.edu/community_visitor.cfm

Does the institution have a guide for commuters about how to use alternative methods of transportation? :

Yes

A brief description of the guide for commuters about how to use alternative methods of transportation :

Parking and Transportation Services at the University of Arizona strongly encourage students, faculty, staff, and commuters to consider incorporating alternative modes of travel into their lives. Parking and Transportation's Travel Reduction website has information on programs offered by the University as well as the community that promote public transportation, carpooling, and nonmotorized travel options.

The website URL for the guide for commuters about how to use alternative methods of transportation :

<http://parking.arizona.edu/alternative/altoptions.php>

Does the institution have a guide for green living and incorporating sustainability into the residential experience? :

Yes

A brief description of the guide for green living and incorporating sustainability into the residential experience :

Residence Life publishes on its website a list of 15 tips to being green and sustainable in the residence halls. The 15 topics covered are Reduce, Reuse, Recycle, Get to Know Someone Different than You, Increasing Financial Literacy, Buy Local, Reduce Water Consumption, Reduce Paper Consumption, Avoid Wrapping Paper, Report Leaks, Throw Away Cigarette Butts, Cut Down on Packaging, Unplug, and Use Compact Fluorescent Bulbs.

In addition to these tips, Residence Life distributes to every resident a recycling guide that covers how the University recycles.

The website URL for the guide for green living and incorporating sustainability into the residential experience :

http://www.life.arizona.edu/recycle/15_tips.asp

Does the institution have regular coverage of sustainability in the main student newspaper (either through a regular column or a reporter assigned to the sustainability beat)? :

Yes

A brief description of regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat :

The Daily Wildcat assigns one reporter to cover sustainability issues and environmental issues.

The website URL for regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat :

<http://wildcat.arizona.edu/>

Does the institution produce another sustainability publication or outreach material not covered above? (1st material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (2nd material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (3rd material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (4th material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (5th material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (6th material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (7th material) :

A brief description of this material :

The website URL for this material :

Does the institution produce another sustainability publication or outreach material not covered above? (8th material) :

A brief description of this material :

The website URL for this material :

Student Group

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have an active student group focused on sustainability? :

Yes

The name and a brief description of each student group :

The Honors Student Council Sustainability Committee is one of several committees in UA's Honors Student Council. The committee focuses on creating student-led environmental sustainability initiatives on campus and in the greater Tucson community.

List up to 4 notable recent activities or accomplishments of student group(s) :

Past projects that this bright minded and thoughtful group work on and maintain are a student-run garden, adopting a park and planting trees, and other initiatives to green the UA and our community.

List other student groups that address sustainability :

Students for Sustainability, Arizona Blue Chip, Social Justice League, and Harry Potter Alliance in addition to others

The website URL where information about student group(s) is available :

<http://portal.environment.arizona.edu/students/clubs-and-groups/hsc-sustainability-committee>

Organic Garden

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have an on-campus garden where students are able to gain organic farming and/or gardening experience? :

Yes

A brief description of the garden :

The One Tree Garden located at the Udall Center for Studies in Public Policy is designed to be a crop garden while providing natural aesthetic value to the Udall Center. The garden produces corn, tomatoes, beans, beets and squash.

Another organic garden is under development. This garden is intended to produce crops that could be sold at UA Student Unions.

The website URL where information about the garden is available :

<http://ogitd.blogspot.com/>

Model Room in a Residence Hall

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Themed Housing

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainable Enterprise

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Events

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution hold major events related to sustainability, such as conferences, speaker series, or symposia, that have students as the intended audience? :

Yes

A brief description of the event(s) :

Residence Life in conjunction with other departments and groups on campus has run a Sustainability Symposium aimed at students.

The Institute of the Environment schedules speaker and conferences on environmental sustainability topics with students and the community being the intended audience.

The website URL where information about the event(s) are available :

Outdoors Program

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a wilderness or outdoors program that organizes hiking, backpacking, kayaking, or other outings for students and follows Leave No Trace principles? :

Yes

A brief description of the program :

Outdoor Adventures provides students with the opportunity to experience the wonder and glory of the Arizona landscape and beyond. Program activities include various types of climbing, hiking, canyoneering, canoeing, SCUBA diving, mountain biking, surfing, backpacking as well as training to be a Wilderness First Responder. Before all trips, participants attend a mandatory meeting discussing the Leave No Trace principles and specific information related to the area the group will visit.

The website URL where information about the program is available :

http://campusrec.arizona.edu/activities/outdoor_adventures/about.php

Themed Semester or Year

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Has the institution chosen a sustainability-related theme for its themed semester, year, or first-year experience during the past three years? :

Yes

A brief description of the themed semester, year, or first-year experience :

The University of Arizona's Honors College Common Reading program has honors students read and discuss a selected book examining holistically the ideas presented. Each year the book changes. For 2011, Rebecca Skloot's *The Immortal Life of Henrietta Lacks* was chosen for the common reading. Students read the book and then discussed the book looking beyond science and medical ethics to family relations, class, race, history, art and health disparities.

The sustainability-related book that was chosen, if applicable :

The Immortal Life of Henrietta Lacks

The website URL where information about the theme is available :

http://www.honors.arizona.edu/students/common_reading.html

Curriculum

This subcategory seeks to recognize institutions that have formal education programs and courses that address sustainability. One of the primary functions of colleges and universities is to educate students. By training and educating future leaders, scholars, workers, and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. Institutions that offer courses covering sustainability issues help equip their students to lead society to a sustainable future.

Credit
Sustainability Course Identification
Sustainability-Focused Courses
Sustainability-Related Courses
Sustainability Courses by Department
Sustainability Learning Outcomes
Undergraduate Program in Sustainability
Graduate Program in Sustainability
Sustainability Immersive Experience
Sustainability Literacy Assessment
Incentives for Developing Sustainability Courses

Sustainability Course Identification

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has developed a definition of sustainability in the curriculum. The definition was developed by a committee comprised of at least three faculty members who teach courses in different departments. The committee may include students, staff, and other stakeholders as well. The definition does not have to be formally adopted.

In order to report on other STARS Curriculum credits, the definition of sustainability in the curriculum should distinguish between courses that focus or concentrate on the concept of sustainability throughout the course and courses that relate to an aspect of sustainability or include sustainability as part of the course.

- Sustainability-focused courses concentrate on the concept of sustainability, including its social, economic, and environmental dimensions, or examine an issue or topic using sustainability as a lens.
- Sustainability-related courses incorporate sustainability as a distinct course component or module or concentrate on a single sustainability principle or issue.

Part 2

Institution has identified its sustainability-focused and sustainability-related course offerings. A course is either sustainability-focused or sustainability-related; no course should be identified as both sustainability-focused and sustainability-related. Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances. Asking faculty or departments to self-identify sustainability courses using the definition in Part 1 or looking at the stated learning outcomes and course objectives associated with each course may provide a richer view of sustainability course offerings than simply reviewing course descriptions, but it is not required.

Part 3

Institution makes its sustainability course inventory publicly available online. The identification can be incorporated into the course catalog or posted as a stand-alone document.

Submission Note:

The University of Arizona Office of Sustainability is collaborating with the University of Arizona Institute of the Environment to continue to update the Green Course Guide that the link provided above. The Green Course Guide overlaps with the Office of Sustainability's analysis; however the Green Course Guide is much smaller than the file provided for credit ER 6 and ER 7. The change in size is due to the narrower focus of the Green Course Guide.

The Green Course Guide publishes sustainability courses related to primarily environmental sustainability which are included in the total number of sustainability courses.

"---" indicates that no data was submitted for this field

Has the institution developed a definition of sustainability in the curriculum? :

Yes

A copy of the institution's definition of sustainability in the curriculum? :

Sustainability curriculum directly or indirectly addresses the responsible management and long-term viability of environmental, social, and economic systems such that the needs of future generations can be met.

Sustainability-focused courses examine environmental, social and economic dimensions of a topic within the context of sustaining specific qualities over the long-term.

Sustainability-related courses examine one or more dimensions of a topic within the same context but lack the holistic approach of focused courses

This definition of sustainability and course definitions was determined through consultation with various departments across the University of Arizona campus.

The definition is not yet formally adopted but incorporates the definitions of sustainability across academic departments on campus.

Has the institution identified its sustainability-focused and sustainability-related course offerings? :

Yes

A brief description of the methodology the institution followed to complete the inventory :

The Office of Sustainability in cooperation with the Office of the Registrar and faculty members compiled a list of sustainability courses for the two year period of Spring 2009 to Spring 2011. The Registrar provided the Office of Sustainability with the active course catalog as well as a list of courses offered since Spring 2009 through Spring 2011. A graduate assistant analyzed both the catalog and the course offerings looking at titles and descriptions to determine if the courses are sustainability related or focused. Along with this data, academic departments were asked to forward lists of courses they felt were sustainability related or focused.

Does the institution make its sustainability course inventory publicly available online? :

Yes

The website URL where the sustainability course inventory is posted :

http://portal.environment.arizona.edu/academics/green_course_guide

Sustainability-Focused Courses

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution offers sustainability-focused academic courses.

This credit does not include continuing education and extension courses, which are covered by *PAE Credit 21: Sustainability in Continuing Education*.

Submission Note:

The period covered by this data is actually two and a half years. Specifically this data covers all classes taught at the University of Arizona main campus from Spring 2009 to Spring 2011.

Some course listings were consolidated if the course showed up multiple times across majors or was the same type of instruction in or across a program of study. For example, all individual music study classes (MUSI) for a given course number were counted as one course instead of as one course for each instrument.

"---" indicates that no data was submitted for this field

The number of sustainability-focused courses offered :

86

The total number of courses offered :

8298

Number of years covered by the data :

Two

A list of sustainability-focused courses offered :

See inventory file for full list of sustainability courses from 2009 to 2011. Otherwise please click the link provided below for a list of courses related to environmental sustainability compiled by the Institute of the Environment. The courses compiled by Institute of the Environment are also found in the file attached if taught before Fall 2011.

The website URL where the publicly available sustainability course inventory that includes a list of

[Campus Sustainability Data Collector](#) | [AASHE](#) | [Sierra Magazine](#)

sustainability-focused courses is available :

http://portal.environment.arizona.edu/academics/green_course_guide

A copy of the sustainability course inventory :

[UA Sustainability Courses Spring 2009 to Spring 2011.xlsx](#)

Sustainability-Related Courses

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution offers sustainability-related academic courses.

This credit does not include continuing education and extension courses, which are covered by *PAE Credit 21: Sustainability in Continuing Education*.

"---" indicates that no data was submitted for this field

The number of sustainability-related courses offered :

1136

The total number of courses offered :

8298

Number of years covered by the data :

Two

A list of sustainability-related courses offered :

See inventory file for full list of sustainability courses from 2009 to 2011. Otherwise please click the link provided below for a list of courses related to environmental sustainability compiled by the Institute of the Environment. The courses compiled by Institute of the Environment are also found in the file attached if taught before Fall 2011.

The website URL where the sustainability course inventory that includes a list of sustainability-related courses is posted :

http://portal.environment.arizona.edu/academics/green_course_guide

A copy of the sustainability course inventory :

[UA Sustainability Courses Spring 2009 to Spring 2011.xlsx](#)

Sustainability Courses by Department

Criteria

Institution's academic departments (or equivalent) offer sustainability-related and/or sustainability- focused courses.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Learning Outcomes

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's students graduate from programs that include sustainability as a required learning outcome or include multiple sustainability learning outcomes.

For this credit, learning outcomes at the course level count if the course is required to earn the degree. This credit includes graduate as well as undergraduate programs. For this credit, "programs" include majors, minors, concentrations, certificates, and other academic designations. Programs that include co-curricular aspects may count as long as there is an academic component of the program.

"---" indicates that no data was submitted for this field

The number of graduates covered by the sustainability learning outcomes :

1194

Total number of graduates :

8596

A list of degree programs that have sustainability learning outcomes :

Agricultural and Resource Economics
Agricultural Technology Management and Education
Anthropology
Architecture
Arid Lands Resource Sciences
Atmospheric Sciences
Biology
Biosystems Engineering
Chemistry
Chemical Engineering
Chemical and Environmental Engineering
Civil Engineering
Ecology and Evolutionary Biology
Economics
Economics, Law, & the Environment
Entomology and Insect Science
Environmental Health Sciences

Environmental and Water Resources Economics
Environmental Science
Genetics
Geographic Information Systems Technology
Geography
Geosciences
Global Change
Hydrology
Hydrometeorology Program
Integrated Science
Landscape Architecture
Lowell Program in Economic Geology
Meteorology
Mining Engineering
Natural Resources
Natural Science for Teachers
Planning
Plant Pathology
Plant Sciences
Professional Science Master's
Public Health
Public Policy and Administration
Regional Development
Remote Sensing and Spatial Analysis
Science Education
Soil, Water and Environmental Science
Statistics
Sustainable Built Environments
Systems Engineering
Tri-University Master of Engineering Degree
Water Policy

The website URL where the publicly available sustainability course inventory that includes a list of degree programs that have specified sustainability learning outcomes is available :

A copy of the sustainability course inventory :

A list or sample of the sustainability learning outcomes associated with the degree programs :

Undergraduate Program in Sustainability

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution offers at least one sustainability-focused undergraduate major, degree program, or equivalent.

The degree program does not have to include sustainability in its name to count for this credit. Environmental Studies programs, for example, count as long as the program covers the social, economic, and environmental dimensions of sustainability. A program that focuses exclusively on environmental or social issues, however, would not be sufficient to earn this credit.

Concentrations within a major (e.g. a concentration on sustainable business within the business major) do not count for this credit.

"---" indicates that no data was submitted for this field

Does the institution offer an undergraduate degree program that meets the criteria for this credit? :

Yes

The name of the sustainability-focused, undergraduate degree program (1st program) :

Sustainable Built Environments

The website URL for the program (1st program) :

<http://portal.environment.arizona.edu/degrees/undergraduate/sustainable-built-environments>

The name of the sustainability-focused, undergraduate degree program (2nd program) :

Environmental and Water Resource Economics

The website URL for the program (2nd program) :

<http://portal.environment.arizona.edu/degrees/undergraduate/environmental-and-water-resource-economics>

The name of the sustainability-focused, undergraduate degree program (3rd program) :

The website URL for the program (3rd program) :

The name and website URLs of all other sustainability-focused, undergraduate degree program(s) :

Graduate Program in Sustainability

Criteria

Institution offers at least one sustainability-focused degree program or equivalent for graduate students.

The degree program does not have to include sustainability in its name to count for this credit. Environmental Studies programs, for example, count for this credit as long as the program covers the social, economic, and environmental dimensions of sustainability. A program that focuses exclusively on environmental or social issues, however, would not be sufficient to earn this credit.

Concentrations within a degree program (e.g. a concentration on sustainable business within an MBA program) do not count for this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Immersive Experience

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution offers at least one immersive, sustainability-focused educational study program. The program(s) may take place off-campus, overseas, or on-campus.

For this credit, the program meets one or both of the following criteria:

- it concentrates on sustainability, including its social, economic, and environmental dimensions or
- it examines an issue or topic using sustainability as a lens.

Immersive programs offered in partnership with outside entities may count for this credit. Programs offered exclusively by outside entities do not count for this credit.

"---" indicates that no data was submitted for this field

Does the institution offer a program that meets the criteria for this credit? :

Yes

A brief description of the sustainability-focused immersive experience(s) offered by the institution :

The School of Geography and Development collaborates with local schools and the Community Food Bank to provide community gardens in low-income neighborhoods or areas where fresh produce is prohibitively expensive. Students participate in the program as interns. Before being sent into the field, interns learn about the physical aspects of sustainable gardening from Community Food Bank experts, including garden design, irrigation and soil enhancement. Professor Marston instructs interns on population and resource dynamics and community building processes while professors from the Department of Education are brought in to lecture on how to engage with young people in the classroom.

The program provides an opportunity for students to use sustainability as a lens in creating community as well as to examining and changing the way the community relates to food.

The website URL where information about the immersive experience is available :

<http://www.arizona.edu/features/digging-community-lessons-ochoa-garden>

Sustainability Literacy Assessment

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution conducts an assessment of the sustainability literacy of its students. The sustainability literacy assessment focuses on knowledge of sustainability topics, not values or beliefs.

Part 2

Institution conducts a follow-up assessment of the same cohort group using the same instrument.

"---" indicates that no data was submitted for this field

Has the institution conducted a sustainability literacy assessment? :

Yes

Did the assessment include a baseline evaluation of students and then a follow-up evaluation of the same cohort? :

No

A copy of the questions included in the sustainability literacy assessment :

[UA Sustainability Assessment Fall 2011.pdf](#)

A copy of the questions included in the sustainability literacy assessment :

A brief description of how the assessment was developed :

The assessment was developed based on a review of current assessments used by other universities and an assessment promoted by the American College Personnel Association (ACPA). Questions from the ACPA's Sustainability Assessment were amended so as to better reflect the impact of the curriculum and time spent at the University of Arizona on the understanding of sustainability principles in addition to measuring behavior.

A brief description of how the assessment was administered :

The assessment was administered online to a representative randomly selected sample population of 3700 seniors for a period of 17 days starting on November 28, 2011 to December 14, 2011.

To encourage a higher response rate, all participants who completed the survey were given the opportunity to enter into a raffle to win one of ten gift cards worth \$35 each.

A brief summary of results from the assessment :

The major findings of the assessment indicate:

- 1.Seniors at the UA are generally concerned about environmental, social, and economic sustainability issues, with over 50% reporting as being “very concerned” or “extremely concerned.”
- 2.Over half of respondents indicate that their career choices have been or will be influenced by concerns regarding sustainability to a moderate or considerable degree.
- 3.Respondents indicate that the UA has improved awareness and understanding of sustainability topics through the academic curriculum.

The website URL where information about the literacy assessment is available :

Incentives for Developing Sustainability Courses

Criteria

Institution has an ongoing program or programs that offer incentives for faculty in multiple disciplines or departments to develop new sustainability courses and/or incorporate sustainability into existing courses or departments. The program aims to increase student learning of sustainability.

Incentives may include release time, funding for professional development, and trainings offered by the institution.

Incentives for expanding sustainability offerings in academic, non-credit, and/or continuing education courses count for this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Research

This subcategory seeks to recognize institutions that are conducting research related to or focused on sustainability. Conducting research is a major function of many colleges and universities. By researching sustainability issues and refining theories and concepts, higher education institutions can continue to help the world understand sustainability challenges and develop new technologies, strategies, and approaches to address those challenges.

Credit
Sustainability Research Identification
Faculty Engaged in Sustainability Research
Departments Engaged in Sustainability Research
Sustainability Research Incentives
Interdisciplinary Research in Tenure and Promotion

Sustainability Research Identification

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has developed a definition of sustainability research. The definition was developed by a committee comprised of at least three faculty members from different departments who conduct research. The committee may include students, staff, and other stakeholders as well. The definition does not have to be formally adopted.

Part 2

Institution has identified its sustainability research activities and initiatives. This research inventory should include all research centers, laboratories, departments, and faculty members whose research focuses on or is related to sustainability.

Part 3

Institution makes its sustainability research inventory publicly available online.

"---" indicates that no data was submitted for this field

Has the institution developed a definition of sustainability research? :

Yes

A copy of the institution's definition of sustainability research :

Research that directly or indirectly supports the responsible management and long-term viability of natural, social and economic systems such that the needs of future generations can be met.

Has the institution identified its sustainability research activities and initiatives? :

Yes

A brief description of the methodology the institution followed to complete the inventory :

Analysis of the research centers and departments on campus by an Office of Sustainability graduate assistant was used to create a list of research projects that compliments current listings kept by the Institute of the Environment.

Specifically, the research focus of departments and centers played a large part in determining what activities are deemed sustainability research as did the role of faculty members who both teach about and research sustainability issues.

Does the institution make its sustainability research inventory publicly available online? :

Yes

The website URL where the sustainability research inventory is posted (required if claiming Part 3 of the credit) :

<http://portal.environment.arizona.edu/research/programs>

Faculty Engaged in Sustainability Research

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's faculty members conduct research on sustainability topics.

Any level of sustainability research by a faculty member is sufficient to be included for this credit. In other words, a faculty member who conducts both sustainability research and other research may be included.

Submission Note:

Information regarding the number of faculty conducting research, sustainability related or not, was determined through the use of statistics stored in UA Analytics, and through counting of faculty researchers in each department and research center.

Classifying faculty as conducting sustainability research was conducted by looking at the faculty member research, research center affiliation, and whether or not they are affiliate with the UA Institute of the Environment.

"---" indicates that no data was submitted for this field

The number of faculty members engaged in sustainability research :

825

The total number of faculty members engaged in research :

2053

Names and department affiliations of faculty engaged in sustainability research :

The website URL where the sustainability research inventory that includes the names and department affiliations of faculty engaged in sustainability research is posted :

A copy of the sustainability research inventory that includes the names and department affiliations of faculty engaged in sustainability research :

[UA Sustainability Faculty Researchers 2009 to 2011.xlsx](#)

Brief descriptions of up to 4 recent notable accomplishments by faculty engaged in sustainability research, including names and department affiliations :

Jonathan Overpeck, Geosciences: Leading Edge Researcher Award, University of Arizona Office of Economic Development

Peter Ellsworth and team, Entomology: Arizona Pesticide Management Center awarded EPA Gold Tier Shining Star Award

Sharon Megdal, Hydrology and Water Resources: Leading Edge Researcher Award

Diana Liverman, School of Geography and Development: Regents Professor 2011 to present.

The website URL where information about sustainability research is available :

Departments Engaged in Sustainability Research

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's academic departments include faculty members who conduct sustainability research.

Any level of sustainability research by a faculty member in a department is sufficient for this credit.

"---" indicates that no data was submitted for this field

The total number of academic departments that conduct research :

18

The number of academic departments in which at least one faculty member engages in sustainability research :

14

A list of academic departments in which at least one faculty member engages in sustainability research :

Soils, Water and Environmental Science

Geography and Regional Development

Atmospheric Sciences

Sociology

Public Administration

College of Public Health

College of Law

Chemical and Environmental Engineering

Natural Resources and the Environment

Geosciences

Agricultural and Biosystems Engineering

Hydrology and Water Resources

Pharmacology and Toxicology

Mining and Geological Engineering

The website URL where the sustainability research inventory that includes the departments engaged in sustainability research is posted :

A copy of the sustainability research inventory that includes the departments engaged in sustainability research :

Sustainability Research Incentives

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has an ongoing program to encourage students in multiple disciplines or academic programs to conduct research in sustainability. The program provides students with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and mentorships.

Part 2

Institution has an ongoing program to encourage faculty from multiple disciplines or academic programs to conduct research in sustainability topics. The program provides faculty with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and faculty development workshops.

"---" indicates that no data was submitted for this field

Does the institution have a program to encourage student sustainability research that meets the criteria for this credit? :

Yes

A brief description of the institution's program(s) to encourage student research in sustainability :

Undergraduate and Graduate students have ample opportunity to get involved in all types of research including projects that deal with sustainability themes. UA is host to many research centers which provide opportunities for students to work with faculty on research. UA also has several programs that promote students to start individual research projects.

A sampling of Undergraduate research programs can be found at

<http://www.arizona.edu/undergraduate-research-opportunities>

For a list of graduate level research opportunities please visit

<http://www.arizona.edu/graduate-research-opportunities>

For a list of all the research centers at the University of Arizona please visit

<http://www.arizona.edu/research-centers>

The website URL where information about the student research program is available :

Does the institution have a program to encourage faculty sustainability research that meets the criteria for this credit? :

Yes

A brief description of the institution's program(s) to encourage faculty research in sustainability :

The University of Arizona supports faculty through several programs. Specifically through Confluence: Center for Creative Inquiry, Community Connections Grants, Faculty Seed Grants, and the George H. Davis Fellowship the University of Arizona encourages faculty to pursue innovative research in both field specific and interdisciplinary areas. The Confluence Center funds the social sciences and the arts, the Community Connections Grants fund projects that encourage development of ties in the community, the Faculty Seed grants provide funds to start innovative research that could later be sponsored by outside sources, and the Davis Fellowship helps defray the costs of attending conferences, meetings, etc., at which the researcher would present findings, scholarship or creative activities.

Additionally in 2008, the Institute of the Environment received \$9 million to encourage faculty to conduct environmental sustainability research and to recruit high quality researchers.

The website URL where information about the faculty research program is available :

<http://www.vpr.arizona.edu/resources>

Interdisciplinary Research in Tenure and Promotion

Criteria

Institution gives positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and tenure decisions.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Operations

Buildings

This subcategory seeks to recognize institutions that are taking steps to improve the sustainability performance of their buildings. Buildings are generally the largest user of energy and the largest source of greenhouse gas emissions on campuses. Buildings also use significant amounts of potable water. Institutions can design, build, and maintain buildings in ways that provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building’s impact on the outdoor environment.

Credit
Building Operations and Maintenance
Building Design and Construction
Indoor Air Quality

Building Operations and Maintenance

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Institution owns and operates buildings that are:

1) Certified under the LEED® for Existing Buildings: Operations & Maintenance (O&M) Green Building Rating System,

and/or

2) Operated and maintained in accordance with sustainable operations and maintenance guidelines and policies that cover the following:

- Impacts on the surrounding site
 - Energy consumption
 - Usage of environmentally preferable materials
 - Indoor environmental quality
 - Water consumption
-

Submission Note:

Currently the University of Arizona is not pursuing LEED for Existing Buildings; however discussion on the topic is under way.

Total building gross square footage does not include the Student Recreation Center Expansion which is accounted for in OP-2.

"---" indicates that no data was submitted for this field

Total building space that meets "Eligible Buildings Criteria" :

13774235 Square Feet

Building space that is maintained in accordance with sustainable building operations and maintenance guidelines or policies but is NOT certified under LEED for Existing Buildings: O&M :

13774235 Square Feet

Building space that is LEED for Existing Buildings: O&M Certified :

0 Square Feet

Building space that is LEED for Existing Buildings: O&M Silver certified :

Campus Sustainability Data Collector | AASHE | Sierra Magazine

0 Square Feet

Building space that is LEED for Existing Buildings: O&M Gold certified :

0 Square Feet

Building space that is LEED for Existing Buildings: O&M Platinum certified :

0 Square Feet

The website URL where a copy of the institution's guidelines or policies for sustainable building operations and maintenance is available :

<http://www.fm.arizona.edu/se/sustain-home.html>

An electronic copy of the guidelines or policies :

The date(s) the policies or guidelines were adopted :

A brief description of how the institution ensures compliance with sustainable building operation and maintenance guidelines and policies :

The names and certification levels of all buildings that are certified under LEED for Existing Buildings: O&M :

The names of all buildings operated and maintained in accordance with similar sustainable operations and maintenance guidelines and policies :

Building Design and Construction

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution-owned buildings that were constructed or underwent major renovations in the past three years are:

1) Certified under the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, and/or LEED for Core and Shell Green Building Rating Systems,

and/or

2) Designed and built in accordance with green building guidelines and policies that cover the following topics:

- Impacts on the surrounding site
 - Energy consumption
 - Usage of environmentally preferable materials
 - Indoor environmental quality
 - Water consumption
-

"---" indicates that no data was submitted for this field

New building space that meets "Eligible Buildings Criteria" :

301801 *Square Feet*

New building space that was designed and constructed in accordance with green building policies or guidelines but not LEED certified :

267962 *Square Feet*

New building space that is LEED Certified :

0 *Square Feet*

New building space that is LEED Silver certified :

0 *Square Feet*

New building space that is LEED Gold certified :

0 *Square Feet*

New building space that is LEED Platinum certified :

33839 Square Feet

The website URL where a copy of the institution's guidelines or policies for green building is available :

<http://www.pdc.arizona.edu/workwithua/dss/>

An electronic copy of the guidelines or policies :

The date(s) the policies or guidelines were adopted :

A brief description of how the institution ensures compliance with green building design and construction guidelines and policies :

The University of Arizona Planning Design and Construction (PDC) is responsible for all new construction on campus. PDC is required as per UA policy.

The names of all buildings that are certified under the LEED for New Construction and Major Renovations, LEED for Commercial Interiors, and/or LEED for Core and Shell Green Building Rating Systems :

The names of all buildings designed and constructed in accordance with green building guidelines and policies but not LEED certified :

All Eligible Building Criteria include the following projects from the past three years:

1. Family and Consumer Sciences/McClelland Park
2. AZCC Levy Building, Remodel first floor
3. Highland Commons, Renovation of 2nd and 3rd Floors
4. SUMC-Bookstore, TENANT IMPR STARBUCKS / NIKE
5. The Law Commons
6. Indoor Practice Facility
7. Glen G Curtis BLDG-YUMA FARM, Finish Shell Space
8. The Law Annex
9. Computer Center, Renovate Room 215A
10. AHSC, Surgery Admin/Oncology Renovations
11. Medical Research BLDG, Renovate Rooms 140K,L,M,N,P
12. AHSC, Women's Health & Resource Center Office
13. Keating Bioresearch BLDG, Renovate Rooms 5, 7 & 50

Indoor Air Quality

Criteria

Institution has adopted an indoor air quality management policy, plan, and/or practices that include regular auditing or monitoring and a mechanism for occupants to register complaints. Policies and plans adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Climate

This subcategory seeks to recognize institutions that are measuring and reducing their greenhouse gas emissions. Global warming is expected to have myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are expected to be particularly pronounced for poor communities and countries.

Credit
Greenhouse Gas Emissions Inventory
Greenhouse Gas Emissions Reduction
Air Travel Emissions
Local Offsets Program

Greenhouse Gas Emissions Inventory

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has conducted a GHG emissions inventory covering its Scope 1 and Scope 2 emissions. The GHG emissions inventory is publicly available, either through the American College & University Presidents' Climate Commitment reporting site, the institution's website, or another public website.

Part 2

Institution has conducted a GHG emissions inventory covering Scope 3 emissions. The GHG emissions inventory is publicly available, either through the American College & University Presidents' Climate Commitment reporting site, the institution's website, or another public website.

"---" indicates that no data was submitted for this field

The website URL where the GHG emissions inventory is posted :

http://rs.acupcc.org/search/?institution_name=University+of+Arizona&carnegie_class=%3F%3F&state_or_province=%3F%3F

Does the inventory include all Scope 1 and 2 emissions? :

Yes

Does the inventory include emissions from air travel? :

Yes

Does the inventory include emissions from commuting? :

Yes

Does the inventory include embodied emissions from food purchases? :

No

Does the inventory include embodied emissions from other purchased products? :

Yes

Does the inventory include emissions from solid waste disposal? :

Yes

Does the inventory include another Scope 3 emissions source not covered above? :

No

If yes, please specify :

Does the inventory include a second Scope 3 emissions source not covered above? :

No

If yes, please specify :

Does the inventory include a third Scope 3 emissions source not covered above? :

No

If yes, please specify :

Does the inventory include a fourth Scope 3 emissions source not covered above? :

No

If yes, please specify :

Greenhouse Gas Emissions Reduction

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution reduced its net Scope 1 and Scope 2 GHG emissions per weighted campus user compared to a 2005 baseline.

For this credit, off-site, institution-catalyzed carbon offsets (i.e. those popularly known as “local offsets”) count in full. Purchased carbon offsets that have been verified by a third party may count towards a portion of the reduction. Purchased offsets that have not been third-party verified do not count.

To conduct a GHG emissions inventory, campuses may use any methodology and/or calculator that is consistent with the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standards.

The baseline GHG emissions inventory should include the same emissions sources as the performance year emissions inventory.

Submission Note:

The University of Arizona is not pursuing this section for this submission because follow up analysis and inventory of GHG emissions for a third data point are not available as of this writing.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Air Travel Emissions

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have policies and/or programs in place to reduce emissions from air travel? :

No

A brief description of the policies and/or programs :

The University of Arizona is considering creating a formal program concerning emissions from air travel.

The website URL where information about the policies and/or programs is available :

Local Offsets Program

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a local offsets program through which the institution seeks to offset its greenhouse gas emissions by implementing projects that reduce GHG emissions in the local community? :

No

A brief description of the program :

Currently there is not a program in place, but the University of Arizona is looking into developing a program.

The website URL where information about the program is available :

Dining Services

This subcategory seeks to recognize institutions that are supporting a sustainable food system. Modern industrial food production often has deleterious environmental impacts. Pesticides and fertilizers used in agriculture can contaminate ground and surface water, which has potentially dangerous impacts on wildlife and human health. Furthermore, the often long-distance transportation of food to institutions produces greenhouse gas emissions and other pollution. Additionally, farm workers are often paid substandard wages, subjected to harsh working conditions, and exposed to dangerous pesticides. Institutions can use their food purchases to support their local economies; encourage safe, environmentally-friendly farming methods; and help alleviate poverty for farmers.

Please note that while dining services can also play an important role in conserving energy and water, reducing waste, and purchasing environmentally preferable materials other than food, STARS measures these impacts across the institution instead of by department; therefore, the benefits of these actions are captured in the Energy, Water, Waste, and Purchasing subcategories, respectively.

Credit
Food and Beverage Purchasing
Trayless Dining
Vegan Dining
Trans-Fats
Guidelines for Franchisees
Pre-Consumer Food Waste Composting
PostConsumer Food Waste Composting
Food Donation
Recycled Content Napkins
Reusable Container Discounts
Reusable To-Go Containers

Food and Beverage Purchasing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

This credit includes food and beverage purchases for on-campus dining services operated by the institution or the institution's primary on-site contractor. Institution purchases food and beverages that meet at least one of the following criteria:

- Grown and processed within 250 miles of the institution
- Third-party certified (USDA Certified Organic, Marine Stewardship Council Blue Ecolabel, Food Alliance, Fair Trade, Certified Humane Raised and Handled)

Food and beverage purchases that meet multiple criteria listed above should not be double-counted.

This credit includes food and beverage purchases for on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor (e.g. Aramark, Bon Appétit Management Company, Chartwells, Sodexo). On-site franchises, convenience stores, vending machines, or concessions are excluded from this credit unless they are operated by the institution or the institution's primary on-site contractor..

Submission Note:

Information for this credit was obtained from Dining Services and Shamrock Foods. Shamrock Foods represents 95% of Dining Services expenditures. The percentage seen above is an estimate reflected by both Dining Services and Shamrock Foods.

"---" indicates that no data was submitted for this field

Percentage of food expenditures that meet one or more of the criteria for this credit (0 - 100) :

3

A brief description of the sustainable food and beverage purchasing program :

The University of Arizona promotes the purchase of food and beverage products with a 250 mile radius of the institution if not closer. A small portion of the produce used by Dining Services is produced on campus, but with the development of two large community gardens by Students for Sustainability, the amount is likely to increase.

Additionally, Shamrock Foods distributes produce from all over the western United States; however more analysis is needed to determine the amount that meets the requirements of this credit.

The Website URL where information about the institution's sustainable food and beverage purchasing efforts is available :

Trayless Dining

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution offer diverse, complete-protein vegan dining options during every meal? :

Yes

A brief description of the vegan dining program :

Sixty five percent of the dishes and sides that students can select from the Student Unions and contracted restaurants are vegetarian or vegan.

Additionally, the Student Unions, UA Dining Services, and Campus Health Services are working in collaboration to create a new menu that will increase this number as well as better inform visitors of the Student Union about healthy eating.

The website URL where information about the program, policy, or practice is available :

<http://www.union.arizona.edu/dining/healthy/index.php>

Trans-Fats

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Guidelines for Franchisees

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Pre-Consumer Food Waste Composting

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a pre-consumer food waste composting program? :

Yes

A brief description of the pre-consumer food waste composting program :

Preparation material food waste is collected by Dining Services and is composted by students at the UA Farm as a part of Students for Sustainability's Compost Cats programs.

The overall percentage of meals for which pre-consumer scraps are composted :

The percentage of meal plan meals for which pre-consumer scraps are composted :

The percentage of retail facility meals for which pre-consumer scraps are composted :

The percentage of conference meals for which pre-consumer scraps are composted :

The website URL where information about the composting program is available :

http://sustainability.asua.arizona.edu/SFS_2011/Projects.html

PostConsumer Food Waste Composting

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Submission Note:

http://sustainability.asua.arizona.edu/SFS_2011/Projects.html

"---" indicates that no data was submitted for this field

Does the institution have a postconsumer food waste composting program? :

Yes

A brief description of the postconsumer food waste composting program :

The Student Unions and local restaurants around campus work with the Compost Cats Program to collect post-consumer food waste. The waste is then taken to the UA Agricultural Center where students manage the UA's compostable waste to create market-viable grade compost for use on campus and, eventually, the community.

The percentage of overall meals for which postconsumer composting is available :

The percentage of meal plan meals for which postconsumer composting is available :

The percentage of retail facilities for which postconsumer composting is available :

The percentage of conference meals for which postconsumer composting is available :

The website URL where information about the composting program is available :

Food Donation

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Recycled Content Napkins

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Reusable Container Discounts

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Reusable To-Go Containers

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Energy

This subcategory seeks to recognize institutions that are reducing their energy consumption through conservation and efficiency, and switching to cleaner and renewable sources of energy such as solar, wind, geothermal, and low-impact hydropower. For most institutions, energy consumption is the largest source of greenhouse gas emissions, which cause global warming. Global warming is expected to have myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are expected to be particularly pronounced for poor communities and countries. In addition to causing global warming, energy generation from fossil fuels, especially coal, produces air pollutants such as sulfur dioxide, nitrogen oxides, mercury, dioxins, arsenic, cadmium and lead. These pollutants contribute to acid rain as well as health problems such as heart and respiratory diseases and cancer. Coal mining and oil and gas drilling can also damage environmentally and/or culturally significant ecosystems. Nuclear power creates highly toxic and long-lasting radioactive waste. Large-scale hydropower floods habitat and disrupts fish migration.

Implementing conservation measures and switching to renewable sources of energy can help institutions save money and protect them from utility rate volatility. Renewable energy may be generated locally and allow campuses to support local economic development. Furthermore, institutions can help shape markets by creating demand for cleaner, renewable sources of energy.

Credit
Building Energy Consumption
Clean and Renewable Energy
Timers for Temperature Control
Lighting Sensors
LED Lighting
Vending Machine Sensors
Energy Management System
Energy Metering

Building Energy Consumption

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has reduced its total building energy consumption per gross square foot of building space compared to a 2005 baseline.

To aggregate energy consumption data from multiple sources, figures should be converted into MMBtu (one million British thermal units – a standard measure of energy) using the following equivalents:

1 kWh = 0.003412 MMBtu

1 MWh = 3.412 MMBtu

1 therm = 0.1 MMBtu

1 kBtu = 0.001 MMBtu

1 ton-hour = 0.012 MMBtu

1 MJ = 0.000948 MMBtu

Submission Note:

Performance Year is fiscal year 2009-2010 since full datasets for energy usage are available. 2010-2011 datasets were incomplete for the campus boundary of this report.

"---" indicates that no data was submitted for this field

Total building energy consumption, 2005 :

3533188 MMBtu

Building space, 2005 :

10154673 Gross Square Feet

Total building energy consumption, performance year :

3899589 MMBtu

Building space, performance year :

14160561 Gross Square Feet

List the start and end dates of the energy consumption performance year :

July 1, 2009 to June 30, 2010

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution supports the development and use of clean and renewable energy sources using any one or combination of the following options.

Option 1: Generating electricity from clean and renewable energy sources on campus and retaining or retiring the rights to the environmental attributes of such electricity. (In other words, if the institution has sold Renewable Energy Credits for the clean and renewable energy it generated, it may not claim such energy here). The on-site renewable energy generating devices may be owned and/or maintained by another party as long as the institution has contractual rights to the associated environmental attributes.

Option 2: Using renewable sources for non-electric, on-site energy generation, such as biomass for heating.

Option 3: Catalyzing the development of off-site clean and renewable energy sources (e.g. an off-campus wind farm that was designed and built to supply electricity to the institution) and retaining the environmental attributes of that energy.

Option 4: Purchasing the environmental attributes of electricity in the form of Renewable Energy Certificates (RECs) or other similar renewable energy products that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party, or purchasing renewable electricity through the institution's electric utility through a certified green power purchasing option.

Option 5: Using cogeneration technologies to generate electricity more efficiently. Note: generating electricity using cogeneration technology and a renewable fuel, such as biomass, is considered Option 1 and should not be counted twice.

Since this credit is intended to recognize institutions that are generating new sources of clean and renewable energy, neither the electric grid mix for the region in which the institution is located nor the grid mix reported by the electric utility that serves the institution count for this credit.

Technologies that reduce the amount of energy used but do not generate renewable energy do not count for this credit. For example, daylighting, passive solar design, and ground-source heat pumps are not counted in this credit. The benefits of such strategies are captured by *OP Credit 5: Greenhouse Gas Emissions Reductions* and *OP Credit 7: Building Energy Consumption*.

Transportation fuels, which are covered by *OP Credit 14: Campus Fleet*, are not included in this credit.

To aggregate energy consumption data from multiple sources, figures should be converted into MMBtu (one million British thermal units – a standard measure of energy) using the following equivalents:

1 kWh = 0.003412 MMBtu

1 MWh = 3.412 MMBtu

1 therm = 0.1 MMBtu

1 kBtu = 0.001 MMBtu

1 ton-hour = 0.012 MMBtu

1 MJ = 0.000948 MMBTU

"---" indicates that no data was submitted for this field

Option 1: Total clean and renewable electricity generated on site during the performance year and for which the institution retains or has retired the associated environmental attributes :

0 MMBtu

Option 2: Non-electric renewable energy generated :

0 MMBtu

Option 3: Total clean and renewable electricity generated by off-site projects that the institution catalyzed and for which the institution retains or has retired the associated environmental attributes :

0 MMBtu

Option 4: Total RECs and other similar renewable energy products that the institution purchased during the performance year that are Green-e certified or meet the Green-e standard's technical requirements and are third party verified :

0 MMBtu

Option 5: Total electricity generated with cogeneration technology using non-renewable fuel sources :

299281 MMBtu

Total energy consumed during the performance year :

3899589 MMBtu

A brief description of on-site renewable electricity generating devices :

Due to Power Purchasing Agreements that the University of Arizona has in place with Tucson Electric power, the renewable energy generated onsite is not owned by the UA but does help reduce UA's fossil fuel dependence. The projects currently in use onsite are photovoltaic and solar thermal. Below is a list of the names, addresses, type, technology employed, and amount emissions offset through use of the technology.

1) McClelland Park

a. Location: 650 N. Park Ave, Tucson, AZ

b. Size: 75.68 kWdc-STC

c. Type: Photovoltaic

d. Number and Type of Module: 352 Kyocera KD215GX-LP modules

e. 89.9 Tons of CO2 emissions offset

2) McClelland Hall

- a) Location: 1130 E. Helen St., Tucson, AZ
- b) Size: 316.48 kWdc-STC
- c) Type: Photovoltaic
- d) Number and Type of Module: 1472 Kyocera KD215GX-LP modules
- e) 385 Tons of CO2 emissions offset

3) Student Recreation Center

- a) Location: 1400 E. 6th St., Tucson, AZ
- b) Size: 27.52 kWdc-STC
- c) Type: Photovoltaic
- d) Number and Type of Module: 128 Kyocera KD215GX-LP modules
- e) 32.3 Tons of CO2 emissions offset

4) Second Street Garage

- a) Location: N. Mountain Ave & E 2nd St., Tucson, AZ
- b) Size: 245 kWdc-STC
- c) Type: Photovoltaic
- d) Number and Type of Module: 1168 Kyocera KD210GX-LP modules
- e) 286 Tons of CO2 emissions offset - Equivalent to the electricity use of 34.8 homes for one year

5) Student Recreation Center (Solar Thermal Pool Heating & Campus Chilled Water Loop Chilling)

- a) Location: 1400 E. 6th St., Tucson, AZ
- b) Size: 987 kW-equivalent (2.9 mmBtu/hr)
- c) Type: Solar thermal
- d) Number and Type of Module: 346 Sunda SEIDO solar collector modules
- e) 1317 Tons of CO2 emissions offset

6) Hillenbrand Diving Facility (Solar Thermal Pool Heating)

- a) Location: 1827 E. Enke Drive, Tucson, AZ
- b) Size: 109 kW-equivalent (0.7 mmBtu/hr) pool heating
- c) Type: Solar thermal
- d) Number and Type of Module: 50 Solar Skies Model SS-40 glazed flat plate collectors
- e) 124 Tons of CO2 emissions offset

A brief description of on-site renewable non-electric energy devices :

A brief description of off-site, institution-catalyzed, renewable electricity generating devices :

A brief description of RECs or other similar renewable energy products purchased during the previous year, including contract timeframes :

A brief description of cogeneration technologies deployed :

The University of Arizona utilizes two natural gas-fired steam turbines for co-generation of power on campus. Both turbines are located on campus which significantly cuts down transmission loss.

The website URL where information about the institution's renewable energy sources is available :

<http://www.fm.arizona.edu/se/sustain-home.html>

Timers for Temperature Control

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Lighting Sensors

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution use motion, infrared, and/or light sensors to reduce energy use for lighting in at least one building? :

Yes

A brief description of the technology used :

The Student Union Memorial Center utilizes light sensors in strategic locations in the building that are not high traffic areas. Areas where this technology is utilized is in the large storage and refrigeration areas. In the future, light sensors may also be installed in meeting rooms.

Arbol de La Vida and Likins Residence Halls also have motion sensors to reduce energy usage related to lighting.

The percentage of building space with lighting sensors :

The website URL where information about the institution's use of the technology is available :

LED Lighting

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution use Light Emitting Diode (LED) technology in at least one lighting application? LED applications in exit signs and remote controls do not count for this credit. :

Yes

A brief description of the technology used :

Dining Services utilizes LED technology in all walk-in freezers as well as for accent lighting in the student unions.

UA also encourages the suppliers of its vending machines to utilize LED lighting.

The percentage of building space with LED lighting :

The percentage of parking deck space with LED lighting :

The percentage of outdoor space that uses LED lighting :

The percentage of building space with efficient, non-LED lighting (compact fluorescent, automatic daylight shutoff, or other energy-saving features) :

The website URL where information about the institution's use of the technology is available :

Vending Machine Sensors

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Energy Management System

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Energy Metering

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution meter all energy consumption (electricity, natural gas, purchased steam, etc.) for at least one building? :

Yes

A brief description of the metering system :

Facilities Management maintains an underground infrastructure system. Utilities are routed through a tunnel system and the meters for each building are located in this system. The meters document all of the types of energy consumed by UA buildings.

The percentage of building space with energy metering :

The website URL where information about the metering system is available :

Grounds

This subcategory seeks to recognize institutions that plan and maintain their grounds with sustainability in mind. Beautiful and welcoming campus grounds can be planned, planted, and maintained in any region while minimizing the use of toxic chemicals, protecting wildlife habitat, and conserving water and resources.

Credit
Integrated Pest Management
Native Plants
Wildlife Habitat
Tree Campus USA
Snow and Ice Removal
Landscape Waste Composting

Integrated Pest Management

Criteria

Institution's grounds are developed and maintained in accordance with an integrated pest management plan that adheres to the following four-tiered approach:

- 1) Set action thresholds
- 2) Monitor and identify pests
- 3) Prevention
- 4) Control

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution prioritize the use of native plant species in landscaping? :

Yes

A brief description of the native plant program, policy, or practice :

The University of Arizona Campus Arboretum was officially nationally recognized by the American Public Gardens Association in 2002. The mission of the UA Campus Arboretum is to preserve manage, enhance, and expand a vital collection of plants in an active, urban Sonoran Desert setting. To do this the Campus Arboretum provides guidance and focus to those charged with the planning, development and management of the plant collections of the University of Arizona Campus Arboretum, with the aim of optimizing utilization of available resources to realize the Campus Arboretum's mission through effective and appropriate collections development.

The Collection's Policy, which defines the plant selection criteria states that living plants acquired by the University of Arizona Campus Arboretum should meet the goals and objectives of the Arboretum, as defined by the Mission Statement. Specifically, plants selected for acquisition by the Campus Arboretum should have an emphasis on adaptation to arid or semi-arid conditions or serve some educational value if otherwise. Arid and semi-arid regions shall be defined as those receiving annual rainfall under 250 mm (10 inches) and under 500 mm (20 inches) respectively. Acquisitions should be adapted to the ambient temperature conditions of the site in Tucson, AZ of between -8C and 42C.

The website URL where information about the program, policy, or practice is available :

Wildlife Habitat

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"--- " indicates that no data was submitted for this field

Does the institution have programs in place to protect and/or create wildlife habitat on institution-owned land? :

Yes

A brief description of the wildlife habitat program, policy, or practice :

The Tumamoc: People and Habitats Program utilizes Tumamoc Hill as a living laboratory to test reconciliation ecology concepts as a means of creating spaces that support both human and wildlife use.

<http://www.tumamoc.org/index.html>

Additionally, the UA Campus Arboretum through its efforts, as recognized by Tree Campus USA and the American Association of Botanical Gardens and Arboreta, maintain a vast collection of trees and desert plants. The arboretum's collection creates natural wildlife habitats on campus attracting many animals and insect life. The arboretum maintains trees from all over Arizona helping to protect the biodiversity of Arizona.

<http://arboretum.arizona.edu/>

The website URL where information about the program, policy, or practice is available :

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Is the institution recognized by the Arbor Day Foundation's Tree Campus USA program? :

Yes

A brief description of the institution's Tree Campus USA program :

In 2009, the University of Arizona became a Tree Campus USA. The Campus Arboretum was again awarded this recognition in 2010.

In order to receive recognition as a Tree Campus USA, the UA Campus Arboretum must have an external advisory boards, a tree care plan which governs the management of campus trees and details preservation during construction and specifies directive for storm and emergency tree care.

The website URL where information about the program, policy, or practice is available :

<http://arboretum.arizona.edu/index.html>

Snow and Ice Removal

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Landscape Waste Composting

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Purchasing

This subcategory seeks to recognize institutions that are using their purchasing power to help build a sustainable economy. Collectively, colleges and universities spend many billions of dollars on goods and services annually. Each purchasing decision represents an opportunity for institutions to choose environmentally and socially preferable products and services and support companies with strong commitments to sustainability.

Credit
Computer Purchasing
Cleaning Products Purchasing
Office Paper Purchasing
Vendor Code of Conduct
Historically Underutilized Businesses
Local Businesses

Computer Purchasing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has an institution-wide stated preference to purchase Electronic Product Environmental Assessment Tool (EPEAT) Silver or higher products. This can take the form of purchasing policies, guidelines, or directives. This credit does not include specialized computers for which no EPEAT certified products are available. Policies and directives adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution purchases Electronic Product Environmental Assessment Tool (EPEAT) Silver and/or Gold registered products for standard desktop and notebook/laptop computers and monitors. This credit does not include specialized computers for which no EPEAT certified products are available.

Submission Note:

Expenditure data is based on information provided by Procurement and Contracting Services on the vendors that the University of Arizona utilizes for office and computer equipment purchases. The majority of this data is from the Arizona BuyWays Program, Purchase Orders information, and P-Card purchases made from July 2010 until February 3, 2012.

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase EPEAT Silver or higher computers and monitors? :

Yes

The website URL where the EPEAT policy, directive, or guidelines are posted :

http://www.pacs.arizona.edu/manual_page04#Green_Purchasing

A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed :

The University of Arizona encourages employees to purchase items using the AZ BuyWays program that utilizes select vendors. If products are purchased that do not meet the policy, they must be justified using written documentation as per purchasing policy

guidelines.

Does the institution wish to pursue points for Part 2 of this credit (expenditures on EPEAT computers)? :

Yes

Expenditures on EPEAT Gold desktop and laptop computers and monitors :

287097.95 *US/Canadian \$*

Expenditures on EPEAT Silver desktop and laptop computers and monitors :

11607.50 *US/Canadian \$*

Total expenditures on desktop and laptop computers and monitors :

607142.93 *US/Canadian \$*

Cleaning Products Purchasing

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Part 1

Institution has an institution-wide stated preference to purchase Green Seal™ or EcoLogo™ certified cleaning products. The stated preference can take the form of purchasing policies, guidelines, or directives to purchase green cleaning products. Policies and directives adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution's main cleaning or housekeeping department(s) and/or contractor(s) purchase Green Seal or EcoLogo certified cleaning products. This credit does not include cleaning products for which no Green Seal or EcoLogo certified products are available.

Submission Note:

The University of Arizona's Facilities Management unit is a certified Green Guard Indoor Air Quality Unit. Like other certification programs, to be certified organizations must follow clear guidelines on purchasing and use of products. To obtain certification, the Diversey assesses the performance of Facilities Management according to the prescribed guidelines and awards certification.

More information on GREENGUARD Indoor Air Quality certification can be found at the following URL.

http://www.greenguard.org/en/CertificationPrograms/CertificationPrograms_indoorAirQuality.aspx

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase Green Seal (tm) or EcoLogo (tm) certified cleaning products? :

Yes

The website URL where the green cleaning product purchasing policy, directive, or guidelines are posted :

http://www.pacs.arizona.edu/manual_page04#Green_Purchasing

A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are

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followed :

The University of Arizona encourages employees to purchase items using the AZ BuyWays program that utilizes select vendors. If products are purchased that do not meet the policy, they must be justified using written documentation as per purchasing policy guidelines.

Facilities Management custodial purchasing follows guidelines as stipulated for adherence to the Healthy High Performance Cleaning Program.

Residence Life and the Student Unions each conduct their own custodial purchasing. Purchase of green cleaning products is pursued unless cost is prohibitive.

Does the institution wish to pursue points for Part 2 of this credit (expenditures on cleaning products)? :

Yes

Expenditures on Green Seal and/or EcoLogo certified cleaning products :

206647.96 US/Canadian \$

Total expenditures on cleaning products :

725460.71 US/Canadian \$

A copy of the sections of the cleaning contract(s) that reference certified green products :

Office Paper Purchasing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has an institution-wide stated preference to purchase recycled content office paper. This can take the form of purchasing policies, guidelines, or directives to purchase recycled content office paper. Policies and directives adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution purchases recycled content office paper.

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase recycled content office paper? :

Yes

The URL where the recycled paper policy, directive, or guidelines are posted :

http://www.pacs.arizona.edu/manual_page04#Green_Purchasing

A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed :

The University of Arizona encourages employees to purchase items using the AZ BuyWays program that utilizes select vendors. If products are purchased that do not meet the policy, they must be justified using written documentation as per purchasing policy guidelines.

Does the institution wish to pursue points for Part 2 of this credit (expenditures on recycled paper)? :

Yes

Expenditures on 10-29 percent recycled-content office paper :

34438.05 US/Canadian \$

Expenditures on 30-49 percent recycled-content office paper :

[Campus Sustainability Data Collector](#) | [AASHE](#) | [Sierra Magazine](#)

4503.63 *US/Canadian \$*

Expenditures on 50-69 percent recycled-content office paper :

0 *US/Canadian \$*

Expenditures on 70-89 percent recycled-content office paper (required if claiming points for Part 2) :

0 *US/Canadian \$*

Expenditures on 90-100 percent recycled-content office paper :

120.80 *US/Canadian \$*

Total expenditures on office paper :

183457.63 *US/Canadian \$*

Vendor Code of Conduct

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has and acts on a vendor code of conduct or equivalent policy that sets expectations about the social and environmental responsibility of vendors with whom the institution does business. Policies adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

"---" indicates that no data was submitted for this field

Does the institution have and act on a vendor code of conduct or equivalent policy that sets expectations about the social and environmental responsibility of vendors with whom the institution does business? :

Yes

The website URL where the vendor code of conduct or equivalent policy is posted :

<http://www.licensing.arizona.edu/pdf/LaborCodeofConduct.pdf>

A copy of the vendor code of conduct or equivalent policy :

A brief description of programs and strategies institution has implemented to ensure the code is followed, including a brief description of instances when vendor code of conduct has changed purchasing behavior within the last five years, if applicable :

The University of Arizona is a member of the Fair Labor Association and the Workers' Rights Consortium as well as the Collegiate Licensing Company. The Collegiate Licensing Company (CLC) and the collegiate institutions represented by CLC (Member Institutions) are each committed to conducting their business affairs in a socially responsible and ethical manner consistent with their respective educational, research and/or service missions, and to protecting and preserving the global environment. UA has adopted a labor code which requires that all Licensees, at a minimum, adhere to the principles set forth in the Code.

In 2009, the University suspended its contract with Russell Athletics after findings regarding improper working conditions surfaced. The University reinstated the contract once Russell Athletics improved working conditions.

Historically Underutilized Businesses

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Local Businesses

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Transportation

This subcategory seeks to recognize institutions that are moving toward sustainable transportation systems. Transportation is a major source of greenhouse gas emissions and other pollutants that contribute to health problems such as heart and respiratory diseases and cancer. Due to disproportionate exposure, these health impacts are frequently more pronounced in low-income communities next to major transportation corridors. In addition, the extraction, production, and global distribution of fuels for transportation can damage environmentally and/or culturally significant ecosystems and may financially benefit hostile and/or oppressive governments.

At the same time, campuses can reap benefits from modeling sustainable transportation systems. Bicycling and walking provide human health benefits and mitigate the need for large areas of paved surface, which can help campuses to better manage storm water. Institutions may realize cost savings and help support local economies by reducing their dependency on petroleum-based fuels for transportation.

Credit
Campus Fleet
Student Commute Modal Split
Employee Commute Modal Split
Bicycle Sharing
Facilities for Bicyclists
Bicycle and Pedestrian Plan
Mass Transit Programs
Condensed Work Week
Telecommuting
Carpool/Vanpool Matching
Cash-out of Parking
Carpool Discount
Local Housing
Prohibiting Idling
Car Sharing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution supports alternative fuel and power technology by including in its motorized vehicle fleet (cars, trucks, tractors, buses) vehicles that are:

1. Gasoline-electric hybrid
2. Diesel-electric hybrid
3. Plug-in hybrid
4. 100 percent electric
5. Fueled with Compressed Natural Gas (CNG)
6. Hydrogen fueled
7. Fueled with B20 or higher biofuel for more than 6 months of the year; and/or
8. Fueled with E85 or higher ethanol for more than 6 months of the year.

For this credit, the institution's motorized fleet includes all institution-owned and operated vehicles that are used for transporting people and/or goods. Heavy construction equipment (e.g. excavators and pavers) and maintenance equipment (e.g. lawn-mowers and leaf blowers) are not included in this credit.

"---" indicates that no data was submitted for this field

Gasoline-electric, non-plug-in hybrid vehicles in the institution's fleet :

10

Diesel-electric, non-plug-in hybrid vehicles in the institution's fleet :

0

Plug-in hybrid vehicles in the institution's fleet :

0

100 percent electric vehicles in the institution's fleet :

154

Vehicles in the institution's fleet that are fueled with Compressed Natural Gas (CNG) :

0

Hydrogen fueled vehicles in the institution's fleet :

0

Vehicles in the institution's fleet that are fueled with B20 or higher biofuel for more than 6 months of the year :

13

Vehicles in the institution's fleet that are fueled with E85 or higher ethanol for more than 6 months of the year :

215

Total number of vehicles in the institution's fleet, including all of the above :

1231

Student Commute Modal Split

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's students commute to and from campus using more sustainable options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, or a combination of these options. Students who live on campus should be included in the calculation based on how they get to and from their classes.

Submission Note:

This data focuses traffic to campus for class or work. Data shown was compiled from the 2008 UA Needs Assessment available on the PTS website. Some of the data in the report was consolidated to fit the STARS categories.

Driving alone and Carpool estimates were made based on an assumption that only 14.3% of commuters who drive carpool. This assumption is based off of Census Bureau data for Tucson, AZ.

"---" indicates that no data was submitted for this field

The percentage (0-100) of institution's students who use more sustainable commuting options :

67

The percentage (0-100) of institution's students who commute with only the driver in the vehicle (excluding motorcycles and scooters) as their primary method of transportation :

33

The percentage (0-100) of institution's students who walk, bicycle, or use other non-motorized means as their primary method of transportation. Please note that this may include on-campus residents :

48.50

The percentage (0-100) of institution's students who vanpool or carpool as their primary method of transportation :

5.50

The percentage (0-100) of institution's students who take a campus shuttle or public transportation as their primary method of transportation :

13

The percentage (0-100) of institution's students who use a motorcycle, scooter or moped as their primary method of transportation :

The website URL where information about alternative transportation is available :

Employee Commute Modal Split

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's employees (faculty, staff, and administrators) commute to and from campus using more sustainable options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, or a combination of these options. Employees who live on campus should be included in the calculation based on how they get to and from their workplace.

Submission Note:

The figures used to generate this data are from the 2008 Needs Assessment conducted on behalf of Pima Association of Governments and UA. It can be found on the UA Parking and Transportation Services' website using the site's search engine looking up the query of "needs assessment".

"---" indicates that no data was submitted for this field

The percentage (0-100) of institution's employees that use more sustainable commuting options :

31.10

The percentage (0-100) of institution's employees who commute with only the driver in the vehicle (excluding motorcycles and scooters) as their primary method of transportation :

68.90

The percentage (0-100) of institution's employees who walk, bicycle, or use other non-motorized means as their primary method of transportation. Please note that this may include on-campus residents :

The percentage (0-100) of institution's employees who vanpool or carpool as their primary method of transportation :

The percentage (0-100) of institution's employees who take a campus shuttle or public transportation as their primary method of transportation :

The percentage (0-100) of institution's employees who use a motorcycle, scooter, or moped as their primary method of

transportation :

The website URL where information about alternative transportation is available :

Bicycle Sharing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a bicycle-sharing program or participate in a local bicycle-sharing program? :

Yes

A brief description of the program, including an indication of its scope (e.g., the number of bicycles the program makes available, participation levels, etc.) :

Cat Wheels is a University of Arizona Parking and Transportation Services initiative designed to give students and employees free and easy access to bicycle transportation on the University's campus. After the registration process, checking out a Cat Wheels Bike is as simple as going to one of several parking garages where the bikes are stored. A bike may be used for 24 hours after which the bike must be returned.

The website URL where information about the program, policy, or practice is available :

<http://parking.arizona.edu/sustainability/>

Facilities for Bicyclists

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have indoor and secure bike storage, shower facilities, and lockers for bicycle commuters in at least one building? :

Yes

A brief description of the facilities :

Below is a list and brief description of the bicyclist facilities available at the University of Arizona:

1. Shower and locker facilities on campus available to employees who bicycle: Campus Recreation Center, USB Building, Bear Down Gym. The UA hospital also has shower and locker facilities available for employees. With our outstanding climate, indoor bicycle storage facilities are not as critical as in those areas where adverse climate would require indoor bicycle parking.
2. 214 high security private bike lockers along with Residence Life's 20 lockers provide a total 234 on campus bicycle lockers. University Medical Center has an additional 100 bike locker spaces.
3. 210 pin number access enclosed parking spaces in 5 parking garages. Several departments have gated bike enclosures on campus that amount to an additional 80 spaces.

The website URL where information about the program, policy, or practice is available :

<http://parking.arizona.edu/alternative/indexBike.php>

Bicycle and Pedestrian Plan

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Has the institution developed a bicycle plan? :

Yes

A brief description of the plan :

While there is not one centralized document known as the bicycle plan at UA, Parking and Transportation services and Planning, Design, and Construction have worked together to create a much more bicycle friendly campus through the creation of specific bike routes on campus, free services to bicycle riders such as free air, valet, registration, and the addition of more bike racks and lockers for cyclists to use. The combined effect of these programs promotes bicycle use on campus.

Parking and Transportation is currently working (with Pima Association of Governements and the City of Tucson) on a "Campus and Area Bicycle and Pedestrian Network Plan (CABPNP)". This plan should be complete in December 2011. The purpose of this written plan is to improve bicycle and pedestrian conditions in and around the campus area for area residents, students, faculty, staff and visitors for today and the future.

The University of Arizona efforts resulted in a "Silver" designation status from the League of American Bicyclist (LAB) as a Bicycle Friendly University Program in March 2011. This is a four year designation and official LAB logo designations and signs will be received from the LAB for press releases and sign placement on campus. This information is listed on our PTS public webpage under "News and Media".

In addition, there are a few UA written plans regarding Bicycle Plans/Facilities. There is a Bicycle Circulation plan(June, 2003) listed in "The University of Arizona Comprehensive Campus Plan Appendix", page 73-74. The Univesity Area Circulation Study (February, 1997) likewise details bicycle and pedestrian planning throughout that document.

The website URL where information about the plan is available :

<http://parking.arizona.edu/alternative/bike.php>

Mass Transit Programs

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution offer free or reduced price transit passes and/or operate a free campus shuttle? :

Yes

A brief description of the program(s), (s), including availability, participation levels, and specifics about discounts or subsidies offered (including pre-tax options) :

UA Parking and Transportation offers up to a 50% discount on bus passes to students and faculty in cooperation with SunTran and also operates a free on campus shuttle (called Cat Tran) with multiple routes.

The website URL where information about the program is available :

<https://parking.arizona.edu/sustainability/>

Condensed Work Week

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution offer a condensed work week option for employees? The institution does not have to offer the option to all employees in order to earn this credit. :

Yes

A brief description of the program :

The University of Arizona allows for employees to request a condensed work week schedule as part of its flexible work arrangement options. Employees who request for a condensed work week schedule are required to describe the proposed schedule in detail; explain how work will be allocated; state any necessary changes to current office or departmental procedures; request any needed additional equipment; and create an evaluation plan for the arrangement.

The website URL where information about the program is available :

http://lifework.arizona.edu/etc/guides/lwc_fwa0010.html

Telecommuting

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution offer a telecommute program for employees? :

Yes

A brief description of the program :

Telecommuting, known as Telework at The University of Arizona, is part of a larger program of Flexible Work arrangement options available to employees. The program is set up to be responsive to the employee. An employee submits a request to telework to his or her manager and the request is evaluated based upon the nature of the job and the ability of the employee to work well without direct supervision.

The website URL where information about the program is available :

http://lifework.arizona.edu/etc/guides/lwc_fwa0010.html

Carpool/Vanpool Matching

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution participate in a carpool/vanpool matching program? :

Yes

A brief description of the program :

The University of Arizona participates in the Sun Rideshare program. This program, a service run by Pima Association of Governments, is a free and voluntary carpool matching service for commuters and employers in Pima County. The program provides interested applicants with a "matchlist" of other commuters who live and work near them and also want to carpool. Commuters set up their own carpools to fit their particular commuting needs.

The website URL where information about the program is available :

<http://parking.arizona.edu/alternative/rideshare.php>

Cash-out of Parking

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution allow commuters to cash out of parking spaces (i.e., it pays employees who do not drive to work)?

:

Yes

A brief description of the program :

The University of Arizona Parking and Transportation Services allows individuals who have purchased parking passes to "cash-out" their parking passes should they decide the pass is no longer needed.

The website URL where information about the program is available :

Carpool Discount

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution offer reduced parking fees for car and van poolers? :

Yes

A brief description of the program :

The Carpool Parking Permit program at UA encourages individuals to form carpool groups. Incentives for creating a carpool group are specific carpool parking spots in the garages and lots near the center of campus, and that the cost for the permit can be split between the members of the carpool group. The latter point is of particular importance because parking permits can cost over \$560 in some cases.

The website URL where information about the program is available :

<http://parking.arizona.edu/alternative/carpool.php>

Local Housing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have incentives or programs to encourage employees to live close to campus? :

No

A brief description of the incentives or programs :

At this point in time the University of Arizona does not have an incentive program to live close to campus.

The website URL where information about the incentives or programs is available :

Prohibiting Idling

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Has the institution adopted a policy prohibiting idling? :

Yes

A brief description of the policy :

For security purposes, The University of Arizona prohibits leaving University of Arizona vehicles idling unattended. The University of Arizona also prohibits idling in specific areas, namely near air intake ducts that would take the exhaust from vehicles into the nearby building. Specific examples of such areas are the loading docks of the Arizona Health Sciences Center, the Student Union Memorial Center, and Park Student Union.

The website URL where information about the policy is available :

http://risk.arizona.edu/fleetsafety/policy/sectionthree.shtml#section3_1

Car Sharing

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution participate in a car sharing program, such as ZipCar or HourCar? :

Yes

A brief description of the program :

The University of Arizona's Car Sharing program is contracted through Hertz rental company. The service is an hourly rate rental car. The car models available for rental are the Toyota Prius, Ford Escape, and BMW Mini. Rental rates start at \$8.50 per hour and day rental option is available. The program gives students and faculty the opportunity to nonmotorized transportation to get to and around campus, but still have the convenience of motorized transportation for longer trips away from camp at affordable rates.

The website URL where information about the program, policy, or practice is available :

<https://www.connectbyhertz.com/default.aspx>

Waste

This subcategory seeks to recognize institutions that are moving toward zero waste by reducing, reusing, recycling, and composting. These actions mitigate the need to extract virgin materials, such as trees and metals. It generally takes less energy and water to make a product with recycled material than with virgin resources. Reducing waste generation also reduces the flow of waste to incinerators and landfills which produce greenhouse gas emissions, can contaminate air and groundwater supplies, and tend to have disproportionate negative impacts on low-income communities. Waste reduction and diversion also save institutions costly landfill and hauling service fees. In addition, waste reduction campaigns can engage the entire campus community in contributing to a tangible sustainability goal.

Credit
Waste Reduction
Waste Diversion
Construction and Demolition Waste Diversion
Electronic Waste Recycling Program
Hazardous Waste Management
Materials Exchange
Limiting Printing
Materials Online
Chemical Reuse Inventory
Move-In Waste Reduction
Move-Out Waste Reduction

Waste Reduction

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has implemented source reduction strategies to reduce total waste generation (garbage, recycling, and compost) per weighted campus user compared to a 2005 baseline.

Total waste generation includes all materials recycled, composted, and disposed of as trash except construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP Credit 19: Construction and Demolition Waste Diversion*, *OP Credit 20: Electronic Waste Recycling Program*, and *OP Credit 21: Hazardous Materials Management*.

Submission Note:

Data for this credit was obtained from Facilities Management. Data for fiscal year 2005 was generated using a trendline based off of data from fiscal years 2006 to 2010.

Population figures are from academic year 2010-2011.

"---" indicates that no data was submitted for this field

Weight of materials recycled, 2005 baseline year :

379.16 Tons

Weight of materials composted, 2005 baseline year :

0 Tons

Weight of materials disposed as garbage, 2005 baseline year :

5988.30 Tons

Weight of materials recycled, performance year :

1026.13 Tons

Weight of materials composted, performance year :

209.89 Tons

Weight of materials disposed as garbage, performance year :

2840.43 *Tons*

List the start and end dates of the waste reduction performance year :

July 2010 to June 2011

On-campus residents, 2005 :

5619

Non-residential/commuter full-time students, faculty, and staff members, 2005 :

40686

Non-residential/commuter part-time students, faculty, and staff members, 2005 :

5134

On-campus residents, performance year :

6189

Non-residential/commuter full-time students, faculty, and staff members, performance year :

43721

Non-residential/commuter part-time students, faculty, and staff members, performance year :

4010

Time period for weighted campus user (list the consecutive 12 month period that most closely overlaps with waste reduction performance year) :

Academic year 2010-2011

Indication of whether institution has a stated commitment to waste-reduction goals, such as zero waste :

A brief description of the plan of action to achieve waste reduction goals :

The website URL where information about the institution's waste reduction initiatives is available :

Waste Diversion

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution diverts materials from the landfill or incinerator by recycling, composting, reusing, donating, or re-selling.

This credit does not include construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP Credit 19: Construction and Demolition Waste Diversion*, *OP Credit 20: Electronic Waste Recycling Program*, and *OP Credit 21: Hazardous Materials Management*.

"---" indicates that no data was submitted for this field

Materials recycled, composted, reused, donated, re-sold, or otherwise diverted :

1265.12 Tons

Materials disposed in a solid waste landfill or incinerator :

2840.43 Tons

A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate :

The University of Arizona is actively reducing the generation of waste on campus through various measures. Facilities Management has improved its recycling programs from recycling 6% of waste generated in 2005 to recycling 30% as of 2010. Donation programs run by Residence Life at the end of the year have increased the amount of diverted waste generated by residents. Donation programs run by student groups on campus also positively impact the diversion rate although the amount is not covered in current UA diversion rate figures since a method of collecting this data from student groups has not been implemented.

Construction and Demolition Waste Diversion

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Institution diverts non-hazardous construction and demolition waste from the landfill and/or incinerator.

Soil and organic debris from excavating or clearing the site do not count for this credit.

"---" indicates that no data was submitted for this field

Amount of construction and demolition materials recycled, donated, or otherwise recovered :

1384.19 *Tons*

Amount of construction and demolition materials landfilled or incinerated :

153.80 *Tons*

A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contribute to the diversion rate for construction and demolition waste :

Through the UA Planning, Design, and Construction's Design and Specifications Standards (DSS) document all new construction and demolition must follow explicit processes and procedures to reduce the amount of materials landfilled or incinerated.

Please view the DSS at

<http://www.pdc.arizona.edu/workwithua/dss/>

Electronic Waste Recycling Program

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has a program in place to recycle, reuse, and/or refurbish all electronic waste generated by the institution. Institution takes measures to ensure that the electronic waste is recycled responsibly.

Part 2

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by students. Institution takes measures to ensure that the electronic waste is recycled responsibly.

"---" indicates that no data was submitted for this field

Does the institution have a program in place to recycle, reuse, and/or refurbish all electronic waste generated by the institution and take measures to ensure that the electronic waste is recycled responsibly? :

Yes

Does the institution have a program in place to recycle, reuse, and/or refurbish electronic waste generated by students and take measures to ensure that the electronic waste is recycled responsibly? :

Yes

A brief description of steps taken to ensure that e-waste is recycled responsibly, workers' basic safety is protected, and environmental standards are met :

The Surplus Property Office does not dispose of electronics, but instead fosters for their reuse either within the University or the public. The Surplus Property Office sells the items to other departments or puts them up for auction to the public.

For more information, please visit the Surplus Property Office Program information website at the link below.

http://pacs.arizona.edu/surplus_department_main

A brief description of the electronic waste recycling program for institution-generated materials :

Electronic waste generated by the University of Arizona is handled by the Surplus Property Office. The Surplus Property Office sells equipment no longer being used by one department or unit to another either in whole or for parts. If the item is not sold within the University, items are put to auction to the public.

A brief description of the electronic waste recycling program for student-generated materials :

Residence Life encourages students living within the residence halls to donate unwanted material to the Salvation Army. In addition to electronic items, clothes and food are donated as well.

Another program that students may take advantage of is the CyberJunk program put on by the UA Bookstores. The program encourages the entire Tucson community to drop off old electronic items to the UA Bookstore. The items are put on pallets and sent to an electronic recycling company in California called ECS. This program is a partnership with Apple Inc.

The website URL where information about the e-waste recycling program is available :

Hazardous Waste Management

Criteria

Institution has strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seeks to minimize the presence of these materials on campus.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Materials Exchange

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Limiting Printing

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Materials Online

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Chemical Reuse Inventory

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Move-In Waste Reduction

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a program to reduce residence hall move-in waste? :

Yes

A brief description of the program :

Corral areas are set up outside of each residence hall and La Aldea apartments where students can deposit their cardboard and Styrofoam. Volunteers and staff collect cardboard and Styrofoam from all the halls/apartments as people move in. Residents moving in are encouraged to remove all packaging materials, especially the plastic film around many boxes that is not recyclable at UA.

Statistics generated from the program in 2009 are:

The program collected over 11 tons of cardboard, almost 2 tons of paper, and 11,475 gallons of Styrofoam.

The recycling conducted at hall opening saved approximately:

221 trees

90,398 gallons of water

6,019 gallons of oil

7,631 pounds of air pollution

39.78 cubic yards of landfill space

53,001 kilowatt hours of energy

The website URL where information about the program is available :

<http://www.life.arizona.edu/recycle/opening.asp>

Move-Out Waste Reduction

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a program to reduce residence hall move-out waste? :

Yes

A brief description of the program :

At the end of every semester, the Residence Life Recycling and Sustainability Program partners with Tucson community non-profit organizations to set up collection bins in residence halls and at La Aldea Graduate Housing. The program encourages residents to donate unwanted items that are in usable to condition to community organizations.

Spring 2010 Stats

Total collected: 29.095 tons (58,190 lbs)

Salvation Army – 52,600 lbs

Community Food Bank – 5,590 lbs (4,367 meals)

Sonoran Center for Leadership Development – 1,431 books

Spring 2009 Stats

Total collected: 28.555 tons (57,110 lbs)

Salvation Army - 52,705 lbs.

Community Food Bank - 4,405 lbs. (3,524 meals)

Spring 2007 Stats

Total collected: 20.081 tons (40,162 lbs.)

Miscellaneous items including over 100 microwaves

Spring 2006 Stats

Total Collected: 16.315 tons (32,629 lbs.)

World Care/Tools for Schools - 7,122 lbs. Included household items, electrical appliances, books and school supplies, clothing, first-aid, food, printers, computer monitors etc

Community Food Bank - 3,627 lbs. of non-perishable food

Salvation Army - 21,880 lbs. Included clothing, food, bric-brac, TV, computers, stereos, microwaves, small appliances, plastic storage containers, sofas etc

The website URL where information about the program is available :

<http://www.life.arizona.edu/recycle/closing.asp>
Campus Sustainability Data Collector | AASHE | Sierra Magazine

Water

This subcategory seeks to recognize institutions that are conserving water and making efforts to protect water quality. Pumping, delivering, and treating water is a major energy user, so institutions can help reduce energy consumption and the greenhouse gas emissions associated with energy generation by conserving water. Likewise, conservation and effective stormwater management are important in maintaining and protecting finite groundwater supplies. Water conservation and effective stormwater management also reduce the need for effluent discharge into local surface water supplies, which helps improve the health of local water ecosystems.

Credit
Water Consumption
Stormwater Management
Waterless Urinals
Building Water Metering
Non-Potable Water Usage
Xeriscaping
Weather-Informed Irrigation

Water Consumption

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Institution has reduced its total water consumption per weighted campus user compared to a 2005 baseline.

Total water consumption includes both potable and non-potable water.

Submission Note:

Data for Water Consumption figures was provided by Facilities Management. Water consumption use is reported in calendar years, not academic or fiscal years.

For consistency of use, User data is from 2010-2011 to reflect most recent data available from the UA Factbook.

"---" indicates that no data was submitted for this field

Water consumption, 2005 baseline year :

524205614 Gallons

Water consumption, performance year :

520509223 Gallons

List the start and end dates of the water consumption performance year :

January 1 to December 31, 2010

On-campus residents, 2005 :

5619

Non-residential/commuter full-time students, faculty, and staff members, 2005 :

40686

Non-residential/commuter part-time students, faculty, and staff members, 2005 :

5134

On-campus residents, performance year :

6189

Non-residential/commuter full-time students, faculty, and staff members, performance year :

43721

Non-residential/commuter part-time students, faculty, and staff members, performance year :

4010

Time period for weighted campus user (list the consecutive 12 month period that most closely overlaps with water consumption performance year) :

August 2010 to May 2011

Indication of whether institution has a stated commitment to water use reduction goals :

A brief description of the plan of action to achieve water use reduction goals :

The website URL where information about the institution's water conservation initiatives is available :

Stormwater Management

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Part 1

Institution has adopted a stormwater management policy, plan, and/or strategies that mitigate the stormwater runoff impacts of new construction, major renovation, and other projects that increase paved surface area on campus or otherwise significantly change the campus grounds.

The policy, plan, and/or strategies address both the quantity and quality (or contamination level) of stormwater runoff.

The policy, plan, and/or strategies cover the entire campus. While the specific strategies or practices adopted may vary depending on project type and location, this credit is reserved for institutions that mitigate stormwater runoff impacts consistently during new construction. Implementing a strategy or strategies for only one new development project is not sufficient for this credit.

Policies adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution has adopted a stormwater management policy, plan, or strategies that mitigate the stormwater runoff impacts of ongoing campus operations.

The policy, plan, or strategies address both the quantity and quality (or contamination level) of stormwater runoff.

Though specific practices adopted may vary across the campus, the policy, plan, and/or strategies cover the entire institution. Implementing strategies for only one building or area of campus is not sufficient for this credit.

"---" indicates that no data was submitted for this field

Does the institution have a policy, plan, and/or strategies to reduce stormwater runoff from new development projects? :

Yes

Does the institution have a policy, plan, and/or strategies to reduce stormwater runoff from ongoing campus operations? :

Yes

A brief description of the institution's stormwater management initiatives :

The University of Arizona has a formal Stormwater Management Plan (SWMP) which promotes best practices in six areas. The six areas that the University of Arizona focuses are:

- Public Education and Outreach
- Public Participation and Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post Construction Runoff Control
- Pollution Prevention and Good Housekeeping

Additionally, Risk Management and Safety provides web delivered training for employees to inform employees how the SWMP relates to everyday job responsibilities.

The full SWMP is available on Risk Management and Safety's website provided below.

The website URL where information about the institution's stormwater management initiatives, plan or policy is available :

<http://risk.arizona.edu/environmentalcompliance/stormwatermanagement.shtml>

Does the institution have a living or vegetated roof? :

A brief description of the institution's living or vegetated roof :

Does the institution have porous paving? :

A brief description of the institution's porous paving :

Does the institution have retention ponds? :

A brief description of the institution's retention ponds :

Does the institution have stone swales? :

A brief description of the institution's stone swales :

Does the institution have vegetated swales? :

A brief description of the institution's vegetated swales :

Does the institution employ any other technologies or strategies for stormwater management? :

A brief description of other technologies or strategies for stormwater management employed :

Waterless Urinals

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Building Water Metering

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have building-level water consumption meters for at least one building? :

Yes

A brief description of the water metering employed :

The University of Arizona has several buildings metered for potable water consumption. Information for three metered buildings is available for review for FY 09-10, showing the utility and water consumption for a research building, a public area building and a dorm. To access this information please contact the Office of Sustainability at 621-2711.

The percentage of building space with water metering :

The website URL where information about the practice is available :

Non-Potable Water Usage

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution use non-potable water (e.g., harvested rainwater or graywater) for irrigation and/or other applications? :

Yes

A brief description of the source of non-potable water and how it is used :

In 2003, the University of Arizona began using reclaimed water for the watering of sports fields and lawns.

Please contact Facilities Management for more information.

<http://uanews.org/printview/28754>

The percentage of irrigation water usage from recovered, reclaimed or untreated sources :

100

The percentage of building space using water from recovered, reclaimed or untreated sources :

The percentage of water used in utility plants from recovered, reclaimed or untreated sources :

The website URL where information about the program, policy, or practice is available :

<http://www.fm.arizona.edu/sustainabilityefforts.cfm>

Xeriscaping

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Weather-Informed Irrigation

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Planning, Administration & Engagement

Coordination and Planning

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, incorporating sustainability into their primary campus plans, and developing plans to move towards sustainability. Staff and other resources help an institution organize, implement, and publicize sustainability initiatives. These resources provide the infrastructure that fosters sustainability within an institution. Strategic and physical campus plans guide an institution and its physical development. These important documents establish an institution's priorities and influence budgeting and decision making. Incorporating sustainability into these plans is an important step in making sustainability a campus priority and may help advocates implement sustainable changes. Sustainability plans and climate plans provide a road map for how to achieve sustainability goals.

Credit
Sustainability Coordination
Strategic Plan
Physical Campus Plan
Sustainability Plan
Climate Action Plan

Sustainability Coordination

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has a sustainability committee, office, and/or coordinator that are tasked by the administration or board of trustees to advise on and implement policies and programs related to sustainability on campus.

The committee, office, and/or coordinator focus on sustainability broadly (i.e. not just one sustainability issue, such as climate change) and cover the entire institution. A committee, office, or coordinator that focuses on just one department or school within the institution does not count for this credit.

"---" indicates that no data was submitted for this field

Does the institution have a sustainability committee? :

Yes

The charter or mission statement of the committee or a brief description of the committee's purview and activities :

The President's Advisory Council on Environmental Sustainability was established in October 2010 as part of a larger reorganization of UA Campus Sustainability. the Council provides comprehensive guidance and advice to the President on high-level issues regarding the University of Arizona's leadership in environmental sustainability as it pertains to campus design, student engagement, operations, education, research, and outreach.

The Council is also responsible for the following:

- Identifying university-wide sustainability priorities, and establishing short and long-term goals and working groups to accomplish goals.
- Working with a separate UA Green Fund Committee to align the Committee's project funding decisions with the university-wide sustainability priorities identified by the Council.
- Advising a university-wide Office of Sustainability to execute and successfully accomplish projects and programs aligned with the priorities and short- and long-term goals identified by the Council.
- Gathering information and feedback from the University community

Members of the committee, including affiliations :

Co-Chairs:

Robert Smith, Senior Associate Vice President, Business Affairs

Jan Cervelli, Dean, College of Architecture and Landscape Architecture

Administration:

Robert, Smith, Senior Associate Vice President, Business Affairs
James Van Arsdel, Assistant Vice President, Student Affairs
Kate Jensen, Assistant Vice President, External Relations
Andrew Comrie, Assistant Vice President, Research
Joe Abraham, Director, UA Office of Sustainability

Academic Units:

Jan Cervelli, Dean, College of Architecture and Landscape Architecture
Jeff Goldberg, Dean, College of Engineering
Joaquin Ruiz, Dean, College of Science
Jonathan Overpeck, Institute of the Environment

Employees:

Sabrina Helm, Petsmart Associate Professor, Retailing & Consumer Sciences
Jackie Moxley, Coordinator, UA Water Sustainability Program
Bill Davidson, Marketing Specialist, UA Parking & Transportation Services

Students:

Roeland Hancock, President, Graduate Professional Student Council
Katherine Weingartner, Associated Students of the University of Arizona
Alex Harris, Chair, UA Green Fund Committee

Community Representatives:

John Wesley Miller, Owner, John Wesley Miller Companies
Paul Bonavia, Chairman, President & CEO, Unisource Energy Corporation

The website URL where information about the sustainability committee is available :

<http://portal.environment.arizona.edu/campus-sustainability/paces>

Does the institution have a sustainability office? :

Yes

A brief description of the sustainability office :

The Office of Sustainability was established in October 2010 as part of a larger reorganization of UA Campus Sustainability to improve the coordination of environmental sustainability programs across the university. The Office coordinates students, faculty and staff to ensure the University of Arizona is a top-ranked institution among its peers for leadership in environmental sustainability as it pertains to campus design, student engagement, operations, education, research, and outreach.

The number of people employed in the sustainability office :

6

The website URL where information about the sustainability office is available :

<http://portal.environment.arizona.edu/campus-sustainability/office-of-sustainability>
Campus Sustainability Data Collector | AASHE | Sierra Magazine

Does the institution have a sustainability coordinator? :

Yes

Sustainability coordinator's name :

Joe Abraham

Sustainability coordinator's position title :

Director, Office of Sustainability

A brief description of the sustainability coordinator's position :

The Director of the Office of Sustainability is responsible for coordinating efforts between the departments of the University of Arizona. The Director reports to the Vice President of Student Affairs and President's Advisory Council on Environmental Sustainability. In addition to serving in an administrative role, the Director serves as a central spokesman for the University on subjects of sustainability on behalf of the campus as a whole.

The website URL where information about the sustainability coordinator is available :

<http://portal.environment.arizona.edu/campus-sustainability/office-of-sustainability>

Strategic Plan

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution's current, formally adopted strategic plan or equivalent guiding document includes sustainability at a high level. The plan covers the entire institution.

An amendment to the strategic plan may count for this credit, as long as the institution always presents the amendment with the original plan.

Neither a physical campus plan (which is covered in *PAE Credit 3: Physical Campus Plan*) nor an independent sustainability plan (which is covered in *PAE Credit 5: Sustainability Plan*) counts for this credit.

"---" indicates that no data was submitted for this field

Year the strategic plan or equivalent was completed or adopted :

2010

Does the institution's strategic plan or equivalent guiding document include the environmental dimensions of sustainability at a high level? :

Yes

A brief description of how the strategic plan or amendment addresses the environmental dimensions of sustainability :

The strategic plan discusses the need for the UA to become more efficient in how it is governed and in its consumption patterns. Additionally, the plan pushes for a greater presence of The University of Arizona in climate and sustainability research.

Does the institution's strategic plan or equivalent guiding document include the social dimensions of sustainability at a high level? :

Yes

A brief description of how the strategic plan or amendment addresses the social dimensions of sustainability :

A key component of the strategic plan is to create an environment that is open and inviting to all people. Specifically, the strategic plan discusses ways to bring lower income individuals into higher education, increasing enrollment and financial aid, and through designing courses and resources that are open to all students.

Does the institution's strategic plan or equivalent guiding document include the economic dimensions of sustainability at a high level? :

Yes

A brief description of how the strategic plan or amendment addresses the economic dimensions of sustainability :

For the University of Arizona (UA), economic sustainability is a key goal in the strategic plan. Greater collaboration between departments is being fostered to determine ways to reduce wasteful processes in business and academic operations. On securing funding, UA is seeking to diversify its funding sources to include more private donors and expansion of UA scholarship endowment.

Through development of community partnerships and collaborations, UA is promoting the economic resilience of the community. The partnerships and collaborations fostered by UA allows students and faculty to engage the community while providing valuable service and experience. Through these efforts UA increases the economic sustainability of the entire state of Arizona.

The website URL where information about the strategic plan is available :

<http://provost.arizona.edu/files/strategic-plan2011-final.pdf>

Physical Campus Plan

Criteria

Institution's current plan for its physical campus (commonly referred to as the campus master plan) includes sustainability at a high level.

An amendment to the plan may count for this credit, as long as the institution always presents the amendment with the original plan.

Neither a strategic plan (which is covered in *PAE Credit 2: Strategic Plan*) nor an independent sustainability plan (which is covered in *PAE Credit 4: Sustainability Plan*) counts for this credit.

Plans developed at the system level are eligible for this credit. Likewise, multiple plans which together cover the institution's entire physical campus are eligible for this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Plan

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has a sustainability plan that was developed with input from faculty, staff, and students. The plan includes measurable goals with corresponding strategies and timeframes to achieve the goals. The plan need not be formally adopted.

The plan covers multiple sustainability topics and issues. Plans focused exclusively on climate change, which are covered by *PAE Credit 5: Climate Plan*, are not eligible for this credit.

Strategic or master plans that cover sustainability may count for this credit if they meet the other criteria outlined above.

Submission Note:

The University of Arizona incorporates sustainability into its strategic plan and comprehensive campus plans. As of this writing, a separate sustainability plan is currently under development that will focus more closely on the education aspects of sustainability in addition to physical aspects covered in the Comprehensive Campus Plan and Strategic Plans as well as other guiding documents on campus.

"---" indicates that no data was submitted for this field

Does the institution have a sustainability plan that meets the criteria for this credit? :

Yes

A brief description of how multiple stakeholder groups were involved in developing the plan :

The process to develop a campus plan for the University of Arizona encouraged broad participation throughout a two-year planning period. During this time the planning team participated in hundreds of meetings involving more than 1,000 people. The work is the effort of a team of campus and community leaders, professional staff from Campus and Facilities Planning and Facilities Design and Construction, and the consultant group.

The 2003 Comprehensive Campus Plan was broken into phases in which presentations and meetings were held. Specifically, the phases were: Observations; Principles and Concept; Precinct Studies; Design Guidelines; and Final Plan.

In the 2009 Update to the 2003 Comprehensive Campus Plan, the planning process was similar but only had three phases: Observations; Concepts; and Final Plan. The six month planning process was led by a Project Steering Committee and managed by the Department of Campus & Facilities Planning. Three interactive workshops, open to faculty, staff, students, neighbors and representatives of community groups, were planned. The Update completion was overseen by the then newly formed Planning, Design and Construction unit (PDC).

A brief description of the plan’s measurable goals :

The Comprehensive Campus Plan focuses on eight areas in pursuit of sustainability: Institutional Action; Educational Initiatives; Integrated Processes and Systems; Operations; Energy; Regional Position; Transit; and Waste Stream.

Each area has a list of recommendations that would improve the University of Arizona's commitment to sustainability. The goals include the creation of committees; improvement of community services like bus transit; improvement of facilities and grounds; and fostering behavioral change by students, faculty and patrons. For more information please visit

http://www.cfp.arizona.edu/files/DG_Chapter_5B.pdf

A brief description of how progress in meeting the plan’s goals is measured :

The Arizona Board of Regents requires that The University of Arizona develop a comprehensive campus plan to guide the long-range physical growth of the campus, and calls for an update every five years.

Progress in meeting the University's sustainability goals as outlined in the Comprehensive Campus Plan are reported in the latest update in the Observations section. Recommendations and plan changes can be found in the Executive Summary or the Implementation and Recommendations section.

For more information please visit

<http://www.cfp.arizona.edu/>

The website URL where more information about the sustainability plan is available :

The year the plan was developed or last updated :

2009

Climate Action Plan

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Institution has a formal plan to mitigate its greenhouse gas emissions. The plan includes a measurable, numerical goal or goals and a corresponding date or dates by which the institution aims to achieve its goal(s). The plan has been adopted by the institution's administration.

A formal sustainability plan (i.e. a plan that has been adopted by the administration) counts for this credit if it includes climate change goals, strategies, and corresponding timeframes. Such a plan may also count toward *PAE Credit 4: Sustainability Plan*.

Submission Note:

The plan described herein reflects the commitment of the University of Arizona's Facilities Management which is responsible for the much of day to day operations of the University (utilities, waste management, etc.). As of this writing, a broader plan is in development, for which achievable emissions reduction goals will be available in June 2013.

"---" indicates that no data was submitted for this field

Does the institution have a plan to mitigate its greenhouse gas emissions that meets the criteria for this credit? :

Yes

A brief summary of the climate plan's long-term goals :

The plan has a goal of carbon neutrality by 2050. Specific measures for reaching this goal in terms of demand side energy reduction and supply side techniques are discussed below.

Demand side energy reduction

o Substantial further reductions in building specific energy use through:

- increased focus on energy use in design of new buildings,
- increased focus on energy use in building renovation projects, and
- re-commissioning of existing building systems to optimize performance.

o Substantial reductions in campus-wide energy use through:

- continued implementation of building automation, energy management, and controls,
- further development, sophistication, and real time use of campus energy metering, monitoring, and control, and
- increases in the levels of energy and greenhouse gas awareness, collaboration, and personal responsibility across the entire campus population.

o Further reductions in waste heat through:

- greater use of low temperature heat recovery,
- improvements to the steam distribution systems, and
- greater utilization of combined heat and power equipment.

Supply side shifts away from carbon based energy

o Carbon content of electric power purchased from Tucson Electric Power is anticipated to diminish somewhat as regulatory mandates to increase its renewable energy generation portfolio take effect.

o Increases in the ratio of campus combined heat and power to purchased electric power and natural gas for heat will reduce carbon emissions.

o Increase utilization of solar thermal energy for building heat, domestic water heat, and cooling.

o Increase utilization of on-campus photovoltaics utilizing available roof space and as integrated envelope components to future buildings.

o Develop, perhaps in conjunction with others, utility-scale off-campus solar energy power plants utilizing the University's substantial land holdings, existing power transmission infrastructure and the regions abundant solar resource.

o Alternative low carbon fuel sources for on-campus combined heat and power such as source separated urban biomass or cultivated biofuels may become regionally viable in later years of the plan.

A brief summary of the climate plan's short-term goals :

The University of Arizona will continue to renovate older buildings as well as employ newer more efficient technologies for water and energy consumption. Informing departments and units of practices that reduce waste and improve financial stability will also be encouraged.

Year the climate plan was formally adopted or approved :

2010

An indication of whether institution has made a commitment to reduce GHG emissions a specific amount by a target year :

List which emissions (scope 1, 2, and/or 3) are included in its GHG emissions commitment :

The reduction level (percentage) institution has committed to :

The baseline year the institution used in its GHG emissions commitment :

The baseline emissions level institution used in its GHG emissions commitment :

The target year the institution specified in its GHG emissions commitment :

The website URL where information about the climate plan is available :

<http://www.fm.arizona.edu/documents/Sustainability/UA%20Climate%20Action%20Response%20v2.pdf>

Diversity and Affordability

This subcategory seeks to recognize institutions that are working to advance diversity and affordability on campus. In order to build a sustainable society, diverse groups will need to be able to come together and work collaboratively to address sustainability challenges. People of color and low-income communities tend to suffer disproportionate exposure to environmental problems. This environmental injustice happens as a result of unequal and segregated communities. To achieve environmental and social justice, society must work to address discrimination and promote equality. The historical legacy and persistence of discrimination based on racial, gender, religious, and other differences makes a proactive approach to promoting a culture of inclusiveness an important component of creating an equitable society. Higher education opens doors to opportunities that can help create a more equitable world, and those doors must be open through affordable programs accessible to all regardless of race, gender, religion, socio-economic status and other differences. In addition, a diverse student body, faculty, and staff provide rich resources for learning and collaboration.

Credit
Diversity and Equity Coordination
Measuring Campus Diversity Culture
Support Programs for Underrepresented Groups
Support Programs for Future Faculty
Affordability and Access Programs
Gender Neutral Housing
Employee Training Opportunities
Student Training Opportunities

Diversity and Equity Coordination

Criteria

Institution has a diversity and equity committee, office, and/or coordinator that are tasked by the administration or board of trustees to advise on and implement policies, programs, and trainings related to diversity and equity on campus.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Measuring Campus Diversity Culture

Criteria

Institution assesses attitudes about diversity and equity on campus and uses the results to guide policy, programs, and initiatives.

Institution may measure its culture of diversity and equity using one assessment for the entire institution or using separate assessments that taken together cover the entire institution.

Assessments conducted during the previous five years are eligible for this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Support Programs for Underrepresented Groups

Criteria

Institution has mentoring, counseling, peer support, affinity groups, academic support programs, or other programs in place to support underrepresented groups on campus.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Support Programs for Future Faculty

Criteria

Institution administers and/or participates in a program or programs to help build a diverse faculty throughout higher education.

Such programs could take any of the following forms:

- Teaching fellowships or other programs to support terminal degree students from underrepresented groups in gaining teaching experience. (The terminal degree students may be enrolled at another institution).
- Mentoring, financial, and/or other support programs to prepare and encourage undergraduate or other non-terminal degree students to pursue further education and careers as faculty members.
- Mentoring, financial, and/or other support programs for doctoral and post-doctoral students from underrepresented groups.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Affordability and Access Programs

Criteria

Institution has policies and programs in place to make it accessible and affordable to low-income students. Such policies and programs may include, but are not limited to, the following:

- Policies and programs to minimize the cost of attendance for low-income students
- Programs to equip the institution's faculty and staff to better serve students from low-income backgrounds
- Programs to prepare students from low-income backgrounds for higher education such as the federal TRIO programs
- Scholarships for low-income students
- Programs to guide parents of low-income students through the higher education experience
- Targeted outreach to recruit students from low-income backgrounds
- Other admissions policies or programs
- Other financial aid policies or programs

Institutions are not required to have programs or policies in each of the above areas in order to earn this credit. They may pursue the policies and programs that are appropriate for their context.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Gender Neutral Housing

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Employee Training Opportunities

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Student Training Opportunities

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Human Resources

This subcategory seeks to recognize institutions that have incorporated sustainability into their human resources programs and policies. This includes recognition for treating and remunerating their workers responsibly and fairly. An institution's people define its character and capacity to perform; and so, an institution's achievements can only be as strong as its community. An institution can bolster the strength of its community by making fair and responsible investments in its human capital. Such investments include offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers. Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital.

In addition, this subcategory recognizes faculty and staff training and development programs in sustainability. Faculty and staff members' daily decisions impact an institution's sustainability performance. Equipping faculty and staff with the tools, knowledge, and motivation to adopt behavior changes that promote sustainability is an essential activity of a sustainable campus.

Credit
Sustainable Compensation
Employee Satisfaction Evaluation
Staff Professional Development in Sustainability
Sustainability in New Employee Orientation
Employee Sustainability Educators Program
Childcare
Employee Wellness Program
Socially Responsible Retirement Plan

Sustainable Compensation

Criteria

Institution evaluates, and updates as appropriate, its wages and benefits policies and its guidelines for contractors operating on campus to ensure that total compensation (wages plus benefits) for all on-campus workers is sufficient to enable these employees to meet their basic needs, as defined by the institution. This evaluation is completed at least once every three years.

Student workers are not covered by this credit.

While wages and total compensation set in the following ways may constitute sustainable compensation, institutions should conduct a basic needs assessment to ensure that the total compensation is adequate before claiming points for this credit:

- Paying prevailing wages for job type or classification
- Paying average or above average wages for the region or city where the institution is located
- Paying minimum wages or a set amount above the minimum wage

Policies and practices adopted by entities of which the institution is part (e.g. state government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Employee Satisfaction Evaluation

Criteria

Institution conducts a survey or other evaluation that allows for anonymous feedback at least once every five years to measure employee satisfaction. The survey or equivalent may be conducted institution-wide or may be done by individual departments as long as all departments are covered by a survey. The institution has a mechanism in place to address issues raised by the evaluation.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Staff Professional Development in Sustainability

Criteria

Institution makes available training and/or other professional development opportunities in sustainability to all staff at least once per year.

Separate training opportunities for each department would count for this credit, as long as each staff member has an opportunity to learn about sustainability at least once per year.

It is not necessary that each staff member attend such trainings; the credit is based on making training *available* to all staff.

This credit applies to staff members only; it does not include faculty members.

The following training opportunities are not sufficient for this credit:

- Specialized training for a small group of staff
- The opportunity to participate in an institutional sustainability committee or group

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability in New Employee Orientation

Criteria

Institution covers sustainability topics in new employee orientation and/or in outreach and guidance materials distributed to new employees, including faculty and staff.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Employee Sustainability Educators Program

Criteria

Institution administers or oversees an ongoing faculty/staff peer-to-peer sustainability outreach and education program. In the program, employee sustainability educators are formally designated and receive formal training or participate in an institution-sponsored orientation. The institution offers financial or other support to the program.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Childcare

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Employee Wellness Program

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Socially Responsible Retirement Plan

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Investment

This subcategory seeks to recognize institutions that make investment decisions that promote sustainability. Most institutions invest some of their assets in order to generate income. Together, colleges and universities invest hundreds of billions of dollars. Schools with transparent and democratic investment processes promote accountability and engagement by the campus and community. Furthermore, institutions can support sustainability by investing in companies and funds that, in addition to providing a strong rate of return, are committed to social and environmental responsibility. Investing in these industries also supports the development of sustainable products and services. Finally, campuses can engage with the businesses in which they are invested in order to promote sustainable practices.

Throughout this subcategory, the term “sustainable investment” is inclusive of socially responsible, environmentally responsible, ethical, impact, and mission-related investment.

Credit
Committee on Investor Responsibility
Shareholder Advocacy
Positive Sustainability Investments
Student-Managed Sustainable Investment Fund
Sustainable Investment Policy
Investment Disclosure

Committee on Investor Responsibility

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution has a formally established and active CIR or similar body that makes recommendations to the Board of Trustees on socially and environmentally responsible investment opportunities across asset classes, including proxy voting. The body has multi-stakeholder representation, which means its membership includes faculty, staff, and students and may include alumni, trustees, and/or other parties.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the investment policies and activities of those entities.

A general committee that oversees the institution's investments does not count for this credit unless social and environmental responsibility is an explicit part of its mission and/or agenda.

This credit applies to institutions with endowments of US \$1 million or larger. Institutions with endowments totaling less than US \$1 million may choose to omit this credit.

"---" indicates that no data was submitted for this field

Does the institution have a committee on investor responsibility or similar body that meets the criteria for this credit?

:

No

The charter or mission statement of the CIR or other body, which reflects social and environmental concerns, or a brief description of how the CIR is tasked to address social and environmental concerns :

The University of Arizona does not have a CIR specifically tasked to environmental concerns

Members of the CIR, including affiliations :

None

Recent examples (within the past 3 years) of CIR actions :

Not applicable

The website URL where information about the committee is available :

[Campus Sustainability Data Collector](#) | [AASHE](#) | [Sierra Magazine](#)

Shareholder Advocacy

Criteria

There are two possible approaches to earning this credit.

1) Institution filed or co-filed one or more shareholder resolutions that address sustainability or submitted one or more letters about social or environmental responsibility to a company in which it holds investments, during the previous three years.

and/or

2) Institution has conducted a negative screening of its entire investment pool within the last three years. This could take the form of prohibiting investment in an industry (e.g. tobacco or weapons manufacturing) or participating in a divestment effort (e.g. companies operating in South Africa during apartheid). The negative screen includes selling all but \$2,000 or less of the affected direct holdings and writing a letter to all fund managers encouraging them to remove affected holdings as well.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the shareholder advocacy activities of those entities.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Positive Sustainability Investments

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

Institution invests in any of the following:

- Sustainable industries, such as renewable energy or sustainable forestry
- Businesses selected for exemplary sustainability performances
- Sustainability investment funds, such as a renewable energy investment fund
- Community development financial institutions (CDFI)
- Socially responsible mutual funds with positive screens.

Investment in a socially responsible mutual fund with only negative screens (i.e. one that excludes egregious offenders or certain industries, such as tobacco or weapons manufacturing) does not count for this credit.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the investment policies and activities of those entities.

"---" indicates that no data was submitted for this field

Total value of the investment pool :

520000000 US/Canadian \$

Value of holdings in sustainable industries, such as renewable energy or sustainable forestry :

5209271 US/Canadian \$

Value of holdings in businesses selected for exemplary sustainability performances :

0 US/Canadian \$

Value of holdings in sustainability investment funds, such as a renewable energy investment fund :

1931705 US/Canadian \$

Value of holdings in community development financial institutions (CDFIs) :

0 US/Canadian \$

Value of holdings in socially responsible mutual funds with positive screens :

A brief description of the companies, funds, and/or institutions referenced above :

The Leuthold Global Clean Technology Fund will generally invest in four clean technology groups including: “Alternative Energy,” “Resource Conservation,” “Clean Water,” and “Clean Environment.” Securities are selected based on their expectations for long-term capital appreciation. The Fund may invest in companies of all sizes and industries as well as in “growth” stocks and “value” stocks.

Equity securities are selected on a company-by-company basis primarily through the use of fundamental analysis. The Fund attempts to identify companies for possible investment by analyzing their valuations and growth prospects based on an understanding of their leadership potential, proprietary and technological advantages, financial condition, sales and earnings growth potential, and economic, political and regulatory environment.

The Fund will normally invest at least 40% of its asset in securities from international markets

Technology Partners is an investment company that invests solely in Cleantech, specifically in energy, water, and advanced-materials companies; and Life Sciences, specifically neuromedicine, cost-effective medicine, and consumer medicine.

GMO Renewable Resources is arm of GMO LLC. The Renewable Resources are focus primarily on the timber market. GMO’s Renewable Resources Division launched the Long Horizons Forestry strategy, which invests in non-traditional species with a 15- to 20-year time horizon.

The website URL where information about the institution’s sustainability investment activities is available :

http://www.uafoundation.org/about/presidents_office/financial_services/financial.shtml

Student-Managed Sustainable Investment Fund

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainable Investment Policy

Responsible Party

Joseph Abraham
Director
Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution have a policy, practice or directive to consider the social and/or environmental impacts of investment decisions, in addition to financial considerations? :

No

A brief description of the sustainable investment policy :

Arizona Board of Regents Policy states that the university investment funds are to be invested to maximize rate of return.

The website URL where information about the policy is available :

Investment Disclosure

Responsible Party

Joseph Abraham

Director

Office of Sustainability

"---" indicates that no data was submitted for this field

Does the institution make a snapshot of its investment holdings, including the amount invested in each fund and/or company and proxy voting records, available to the public? :

Yes

A brief description of the institution's investment disclosure practices :

The University of Arizona Foundation discloses its assets in annual reports, endowment reports, and 990 Federal Tax forms. Most of the Foundation's investments in mutual funds and limited liability companies are based upon the premise that they will not be subject to disclose all of their respect holdings such as individual company stocks managed on behalf of the University of Arizona.

Information from the UA Foundation can be found at

http://uafoundation.org/about/presidents_office/financial_services/990s_statements.shtml

.

The University's Financial Services Office also discloses information on bonds that the office manages. Reports can be found through the Office of Investments at

<http://fso.arizona.edu/Investments/index.html>

.

The website URL where information about investment disclosure available :

Public Engagement

This subcategory seeks to recognize institutions that give back to their communities through community service, engagement, and partnerships. Volunteerism and the sense of compassion that community service helps develop are fundamental to achieving sustainability. From tutoring children to removing invasive species to volunteering at a food bank, students, faculty, and staff can make tangible contributions that address sustainability challenges through community service. Community engagement can help students develop leadership skills while deepening their understandings of practical, real-world problems. Institutions can contribute to their communities by harnessing their financial and academic resources to address community needs. For example, faculty research and courses can focus on how to address community problems. In addition, colleges and universities can offer incentives for their graduates to pursue careers that fill community needs, and schools can use their prominence to advocate for sustainability outside of their institutions.

Credit
Community Sustainability Partnerships
Inter-Campus Collaboration on Sustainability
Sustainability in Continuing Education
Community Service Participation
Community Service Hours
Sustainability Policy Advocacy
Trademark Licensing
Graduation Pledge
Community Service on Transcripts
Farmers' Market

Community Sustainability Partnerships

Criteria

Institution has formal partnership(s) with the local community, including school districts, government agencies, non-profit organizations, or other entities, to work together to advance sustainability within the community.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Inter-Campus Collaboration on Sustainability

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

Institution collaborates with other colleges and universities to support and help build the campus sustainability community.

"---" indicates that no data was submitted for this field

Does the institution collaborate with other colleges and universities to support and help build the campus sustainability community? :

Yes

A brief summary of papers, guides, presentations, and other resources the institution has developed to share their sustainability experience with other institutions :

University of Arizona Residence Life promotes the use of its recycling tips and program materials for use by other schools associated with the Recyclemania competition.

Another way that the University of Arizona supports the campus sustainability is through modeling practices that create a more inclusive and accepting campus and work culture. One example in particular is the Life and Work Connections program administered by Human Resources. The program recently was touted in case study by Caryn Jung, David Swihart, and Darci Thompson as a model program for establishing a family friendly campus.

Lastly, the University of Arizona's Office of Sustainability Director serves as a regional chair with United States Green Building Council (USGBC) charged with helping develop student USGBC chapters at Arizona universities and colleges.

The names of local, state, regional, national, and other campus sustainability organizations or consortia in which the institution participates and/or is a member :

Climate Assessment for the Southwest (CLIMAS)
Southwest Institute for Research on Women (SIROW)
Joint International Unit on Water, Environment and Public Policy
SRC/SEMATECH Engineering Research Center for Environmentally Benign Semiconductor Manufacturing (

<http://erc.arizona.edu/>

A brief summary of additional ways the institution collaborates with other campuses to advance sustainability :

The University of Arizona has many departments and research programs that focus on furthering the cause of sustainability issues. Through projects like the Climate Assessment for the Southwest (CLIMAS) and collaborative projects of the Water Research Resource Center UA has advanced environmental sustainability. As a top research university, UA is also involved in many National Science Foundation funded projects as well as other non-climate related projects such as those promoted by the Bureau of Applied Research in Anthropology and other research centers on campus.

The website URL where information about cross-campus collaboration is available :

Sustainability in Continuing Education

Criteria

Part 1

Institution offers continuing education courses that are focused on or related to sustainability.

Courses that can be taken for academic credit are not included in this credit. They are covered by the *Curriculum* subcategory.

Part 2

Institution has a sustainability-related certificate program through its continuing education or extension department.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Community Service Participation

Criteria

Institution engages its student body in community service, as measured by the percentage of students who participate in community service.

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Community Service Hours

Criteria

Institution engages students in community service, as measured by average hours contributed per full-time student per year.

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Policy Advocacy

Criteria

Institution advocates for federal, state, or local public policies that support campus sustainability or that otherwise advance sustainability.

The policy advocacy must be done by the institution, not by students or a student group.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Trademark Licensing

Criteria

Part 1

Institution is a member of the Fair Labor Association or Worker Rights Consortium.

Part 2

Institution has signed on to participate in the Designated Suppliers Program.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Graduation Pledge

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Community Service on Transcripts

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Farmers' Market

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Innovation

Innovation

These credits recognize institutions that are seeking innovative solutions to sustainability challenges and demonstrating sustainability leadership in ways that are not otherwise captured by STARS.

Credit
Innovation 1
Innovation 2
Innovation 3
Innovation 4

Innovation 1

Responsible Party

Joseph Abraham
Director
Office of Sustainability

Criteria

- 1) Innovation credits are reserved for new, extraordinary, unique, groundbreaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
 - 2) In general, innovation credits should have roughly similar impacts or be on the same scale as Tier One credits.
 - 3) The innovative practice, policy, program, or outcome should have occurred within the past three years.
 - 4) The innovative practice or program has to be something that the institution has already done; planned activities do not count.
 - 5) An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted.
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A brief description of the innovative policy, practice, program, or outcome :

At the University of Arizona, cooling is crucial. In a city where summertime temperatures linger for half the year, an inefficient air-conditioning system is more than a money-guzzler—it's an unnecessary drain on limited water and energy resources.

So the university turned to ice. Throughout the evening and early morning hours, water is frozen and stored in central refrigeration plants. During the day, as temperatures rise and air conditioners fire up, the chilled water is circulated through buildings across the main campus and at the Arizona Health Sciences Center. The process moves the bulk of the UA's electrical load from the hot daytime hours to the cooler nighttime hours, when cooling requires less energy. By using the stored "thermal" energy of ice to cool the buildings during the daytime peak-usage periods, the system decreases daytime electrical consumption and dependence on fossil fuel-produced electricity.

The bulk of the ice-making occurs in 165 eight-foot-tall tanks in the campus's Central Refrigeration Building. These tanks, along with another 49 tanks in the main campus Central Heating and Refrigeration Plant, can produce more than 900 tons of ice per hour, which, once melted, reaches buildings across campus through an intricately managed network of chillers, cooling towers, pumps and underground pipes that connect the campus.

Estimated energy savings are \$40,000 per month, with annual savings reaching \$480,000.

In addition to these financial incentives, ice storage also provided the unique ability to increase cooling capacity while improving the overall efficiency of the plant—in other words, less input for a cooler output. The water is cooled at a highly efficient rating of 0.683 kilowatts per ton. In comparison, a home air conditioner generates energy at about 1.5 kilowatts per ton.

The thermal ice storage project, connected to the largest chilled water loop system in the world, attracts the attention of engineers and building managers from around the globe, many of whom come to Tucson to tour the UA's facilities. The unique system is also used to teach engineering students at the university about chilled water technology and other heating and cooling processes.

Besides making triple-digit temperatures bearable, air conditioning is a necessity in many research facilities and medical centers across the UA campus. The innovative solution to keeping the university cool has had significant and immediate effects on both the university's carbon emissions as well as its bottom line financials.

A letter of affirmation from an individual with relevant expertise :

[STARS Thermal Ice Project Letter.pdf](#)

The website URL where information about the innovation is available :

<http://www.fm.arizona.edu/se/sustain-home.html>

Responsible Party

Joseph Abraham

Director

Office of Sustainability

Criteria

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A brief description of the innovative policy, practice, program, or outcome :

Atop the University of Arizona's Student Recreation Center sit 346 solar thermal collectors. They aren't solar panels, which convert solar energy into electric power. Instead, this Solar Thermal Array turns heat into chill—no small feat in a desert town like Tucson.

Within the solar thermal collectors are 5,336 argon-filled vacuum tubes that collect heat energy from the sun to drive an absorption chilling system that cools the 55,500-square foot facility. While using heat for cooling purposes may seem counterintuitive, unlike a refrigerator or an air conditioner, which draws its energy from electric power, an absorption cooler transforms heat into productive energy. Specifically, a water-glycol mix heated by the sun is pumped through the absorption cooler, producing chilled water that is fed into the University's main chilled water loop, thus cooling campus buildings.

A byproduct of the cooling system is heat energy, which, in many similar systems, is released in an adjacent cooling tower. But at UA's Recreation Center, the excess heat energy produced by the system is cycled under the Recreation Center pool, heating its 55,000 gallons of water and closing the solar loop.

This innovative system is the first of its kind in the nation, as no other campus in the U.S. uses solar energy to power both heating and cooling operations.

Maintaining 55,000 gallons of water at a comfortable and consistent temperature would otherwise require a significant amount of natural gas; however, by utilizing the byproducts of the absorption cooling processes, the Recreation Center is able to replace a third of the energy needed to heat the pool.

The energy collected by these 346 solar thermal collectors harvests an estimated annual equivalent of 1.9 million kilowatt hours of electricity, thus reducing greenhouse gas emissions by 1,317 metric tons a year.

A letter of affirmation from an individual with relevant expertise :

[STARS Rec Center Solar Letter.pdf](#)

The website URL where information about the innovation is available :

<http://www.uanews.org/node/42207>

Responsible Party

Joseph Abraham

Director

Office of Sustainability

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A brief description of the innovative policy, practice, program, or outcome :

Before you buy a car, you test drive it—you ask about performance and durability and efficiency. The same idea drives research at the UA TEP Solar Photovoltaic Test Yard, where students and faculty at University of Arizona's Research Institute for Solar Energy (AzRISE) are monitoring different photovoltaic systems to evaluate how they perform in the field.

The Solar Panel Test Yard, the largest of only a dozen in the nation, includes over 600 photovoltaic modules from 20 different manufacturers. Faculty and students work together to measure how different weather conditions, air temperatures, panel placement, and quality and direction of sunlight impact the energy yields of each type of photovoltaic system—and how such systems hold up to the test of time.

While solar cell technology continues to improve in the laboratory, one of the big challenges for solar panels is that they're still very expensive. Which panel makes the most power per cost? The most watts per dollar?

These are key questions not only for utility companies planning to invest in large-scale solar projects, but also for homeowners considering installing solar panels on their roofs.

In 2009, Tucson Electric Power was planning to shut down the test yard because they didn't have the staff to maintain it. Faculty at AzRISE recognized the opportunity for the university to not only engage students in a real-world analysis of grid-tied photovoltaic technology, but also help address the challenges and opportunities for wide-scale implantation of solar energy. Although TEP continues to own the test site—which daily contributes about 90 kilowatts of power to the grid—it is entirely operated and run by UA students and faculty.

In addition to assessing new solar energy technology, a major component of the test yard's mission is to educate the public about photovoltaic systems. The UA TEP Solar Test Yard is the only such yard in the nation open to the public. Since 2009, the yard has had over 2,000 visitors, and given public lectures to over 6,000 people. Additionally, all data collected at the test yard is free and available online.

This unique intersection between academic research, business interest, and public education at the UA TEP Solar Test Yard allows a wide range of interests to work together to solve some of the key problems in wide-scale implementation of solar technology in Arizona.

A letter of affirmation from an individual with relevant expertise :

[STARS Solar Test Yard.pdf](#)

The website URL where information about the innovation is available :

<http://uanews.org/node/24896>

Innovation 4

Responsible Party

Joseph Abraham

Director

Office of Sustainability

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A brief description of the innovative policy, practice, program, or outcome :

What is a tree worth? It's hard to put a price on the value trees add to our communities—harder still to put a price on nearly 8,000 of them. But that's precisely what University of Arizona students are doing.

The UA Campus Arboretum consists of 7,810 mature trees spread across 387 acres, the oldest continually maintained green space in Arizona. Though in some ways these trees are priceless, weaving the campus together like a green thread, in fact each of these unique trees contributes a quantifiable value to the campus and greater community.

As the growing university expands within its borders, assessing and assigning value to these trees is a crucial step in preserving their continued presence within the campus landscape. So UA students and faculty, along with the City of Tucson's Office of Conservation and Sustainable Development, have initiated a comprehensive study to quantify the value these trees contribute to the university and Tucson community.

Six UA students are involved in the project, and will traverse the campus from February to May to inventory and assess every one of those 7,810 trees. Students are collecting data using i-Tree software, which was developed by a former UA professor, Greg McPherson, who now heads the Center for Urban Forest Research at the University of California at Davis. Though the software is now used to catalogue trees around the world, it is rarely used on university campuses. In fact, only 2 individuals in southern Arizona are trained to use the software. With the completion of the arboretum inventory project, the six UA students will quadruple that number.

The i-Trees software considers both economic and environmental components, providing a comprehensive evaluation of a tree's role in the local ecosystem. Environmental benefits considered in tree valuation include atmospheric carbon reduction, air quality benefits, stormwater runoff reductions, as well as aesthetic and other benefits. Many economic considerations are direct, such as maintenance expenses, but others are indirect, such as the replacement value of large trees and energy cost savings. For example, by lowering the campus temperature and shading buildings, the nearly 8,000 trees of the Campus Arboretum save the university thousands of dollars every year in energy costs.

In addition to environmental and economic benefits, the arboretum offers unique educational opportunities. The UA arboretum contains 522 distinct species of trees, including 12 one-of-a-kind species, found nowhere else in the world, and 4 heritage trees. Species in the collection were selected from around the world due to their adaptations to arid landscapes, which provides students and scholars the chance to study a diverse array of drought-resistance horticulture and arid lands ecosystems within a narrow space.

By quantifying the value that specific trees add to the campus landscape, the project not only provides a justification for further plantings, but also hones in on those species that offer the greatest return on investment—the greatest bang for leafy buck.

A letter of affirmation from an individual with relevant expertise :

[STARS Tree Inventory and Valuation Project.pdf](#)

The website URL where information about the innovation is available :

<http://arboretum.arizona.edu/>

Supplemental

Supplemental Data

The supplemental section includes reporting fields that are not part of STARS, but that have been requested by campus survey organizations (the Sustainable Endowments Institute, The Princeton Review, and Sierra magazine). Institutions that wish to share their data with one or more of these organizations should complete the fields in full or contact the relevant organization(s) for guidance regarding minimum reporting requirements.

Credit
New Student Orientation
Food Education
Food and Beverage Purchases
Confinement-Free Food Purchases
Vegetarian-Fed Food Purchases
Hormone-Free Food Purchases
Seafood Purchases
Dishware
Energy Initiatives
Energy Use by Type
Procurement
Bike Sharing
Water Initiatives
Endowment
Sustainability Staffing

New Student Orientation

Criteria

Institution provides details about how it incorporates sustainability into new student orientation.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Food Education

Criteria

Institution provides education about eco-positive food and gardening techniques.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Food and Beverage Purchases

Criteria

Institution provides details of its food and beverage purchases.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Confinement-Free Food Purchases

Criteria

Institution provides details of its confinement-free animal product purchases.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Vegetarian-Fed Food Purchases

Criteria

Institution provides details of its vegetarian-fed animal product purchases.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Hormone-Free Food Purchases

Criteria

Institution provides details of its hormone-free animal product purchases.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Seafood Purchases

Criteria

Institution provides details of seafood products purchased that meet Marine Stewardship Council Blue Ecolabel standards and/or Monterey Bay Aquarium Seafood Watch guidelines.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Dishware

Criteria

Institution provides details of the dishware its provides at its dining services locations.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Energy Initiatives

Criteria

Institution provides details about its energy initiatives.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Energy Use by Type

Criteria

Institution reports its energy use by type.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Procurement

Criteria

Institution provides details about its procurement efforts.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Bike Sharing

Criteria

Institution reports the number of bicycles available through bike sharing programs.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Water Initiatives

Criteria

Institution provides details about its water initiatives.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Endowment

Criteria

Institution provides details about its endowment.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Sustainability Staffing

Criteria

Institution reports the amount of weekly time worked by people employed in the sustainability office, if applicable (in full-time equivalent).

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.