

Duke University

The following information was submitted through the [STARS Reporting Tool](#).

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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.

Institutional Characteristics

Institutional Characteristics

The passthrough subcategory for the boundary

Credit
Institutional Boundary
Operational Characteristics
Academics and Demographics

Institutional Boundary

Criteria

This won't display

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

Institution type:

Doctorate

Institutional control:

Private non-profit

Which campus features are present and included in the institutional boundary?:

	Present?	Included?
Agricultural school	No	No
Medical school	Yes	Yes
Pharmacy school	No	No
Public health school	No	No
Veterinary school	No	No
Satellite campus	Yes	No
Hospital	Yes	Yes
Farm larger than 5 acres or 2 hectares	No	No
Agricultural experiment station larger than 5 acres or 2 hectares	Yes	Yes

Reason for excluding agricultural school:

Reason for excluding medical school:

Reason for excluding pharmacy school:

Reason for excluding public health school:

Reason for excluding veterinary school:

Reason for excluding satellite campus:

The inventory did not include leased space or satellite health system buildings and hospitals. The boundaries were decided by the Campus Sustainability Committee based on the ability to affect areas of campus and the level of control the central administration had over these units.

Reason for excluding hospital:

Reason for excluding farm:

Reason for excluding agricultural experiment station:

Narrative:

The boundaries of this submission include “Duke proper” – the university and health system buildings on or adjacent to the Durham Campus and the Beaufort Marine Lab. The inventory did not include leased space or satellite health system buildings and hospitals. The boundaries were decided by the Campus Sustainability Committee based on the ability to affect areas of campus and the level of control the central administration had over these units.

Operational Characteristics

Criteria

n/a

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

Endowment size:

6,100,000,000 US/Canadian \$

Total campus area:

8,547 Acres

IECC climate region:

Mixed-Humid

Locale:

Urban fringe of mid-size city

Gross floor area of building space:

18,502,474 Gross Square Feet

Conditioned floor area:

Floor area of laboratory space:

1,322,274 Square Feet

Floor area of healthcare space:

3,560,665 Square Feet

Floor area of other energy intensive space:

0 Square Feet

Floor area of residential space:

2,051,979 Square Feet

Electricity use by source::

	Percentage of total electricity use (0-100)
--	---

Biomass	0.00
Coal	32
Geothermal	---
Hydro	1.98
Natural gas	17.98
Nuclear	48
Solar photovoltaic	0.01
Wind	---
Other (please specify and explain below)	0.04

A brief description of other sources of electricity not specified above:

Other = oil

Energy used for heating buildings, by source::

	Percentage of total energy used to heat buildings (0-100)
Biomass	0
Coal	0
Electricity	0
Fuel oil	3.70
Geothermal	0
Natural gas	96.30
Other (please specify and explain below)	0

A brief description of other sources of building heating not specified above:

Academics and Demographics

Criteria

n/a

Submission Note:

10 Divisions -
Divinity School
Fuqua School of Business
Law School
Nicholas School of the Environment
Pratt School of Engineering
Sanford School of Public Policy
School of Medicine
School of Nursing
Trinity
Graduate School

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

Number of academic divisions:

10

Number of academic departments (or the equivalent):

62

Full-time equivalent enrollment:

14,850

Full-time equivalent of employees:

30,472

Full-time equivalent of distance education students:

0

Total number of undergraduate students:

6,471

Total number of graduate students:

8,379

Number of degree-seeking students:

14,600

Number of non-credit students:

0

Number of employees:

30,472

Number of residential students:

5,300

Number of residential employees:

0

Number of in-patient hospital beds:

957

Academics

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
Academic Courses
Learning Outcomes
Undergraduate Program
Graduate Program
Immersive Experience
Sustainability Literacy Assessment
Incentives for Developing Courses
Campus as a Living Laboratory

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution offers sustainability courses and/or courses that include sustainability and makes an inventory of those courses publicly available.

Part 2

Institution's academic departments (or the equivalent) offer sustainability courses and/or courses that include sustainability.

In order to report and earn points for this credit, the institution must conduct a course inventory. The inventory should consist of two parts:

- 1) An inventory of sustainability courses that includes, at minimum, the title, department (or equivalent), and level of each course (i.e. undergraduate or graduate), as well as a brief description if the sustainability focus of the course is not apparent from its title
- 2) An inventory of other courses that include sustainability. The inventory includes, at minimum, the title, department (or the equivalent), and level of each course and a description of how sustainability is integrated into each course.

A course may be a sustainability course or it may include sustainability; no course should be identified as both:

- A sustainability course is a course in which the primary and explicit focus is on sustainability and/or on understanding or solving one or more major sustainability challenge (e.g. the course contributes toward achieving principles outlined in the [Earth Charter](#)).
- A course that includes sustainability is primarily focused on a topic other than sustainability, but incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

For guidance on conducting a course inventory and distinguishing between sustainability courses and courses that include sustainability, see *Standards and Terms* and the Credit Example in the [STARS Technical Manual](#). An institution that has developed a more refined approach to course classification may use that approach as long as it is consistent with the definitions and guidance provided.

Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances. Asking faculty and departments to self-identify sustainability courses and courses that include sustainability using the definitions outlined in *Standards and Terms* 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.

This credit does not include continuing education and extension courses, which are covered by *EN 11: Continuing Education*.

Figures required to calculate the percentage of courses with sustainability content::

	Undergraduate	Graduate
Total number of courses offered by the institution	2,313	2,259
Number of sustainability courses offered	93	106
Number of courses offered that include sustainability	120	88

Number of academic departments (or the equivalent) that offer at least one sustainability course and/or course that includes sustainability (at any level):

42

Total number of academic departments (or the equivalent) that offer courses (at any level):

62

Number of years covered by the data:

One

A copy of the institution's inventory of its course offerings with sustainability content (and course descriptions):

[AC-1 Academic Courses 2013-2014.xlsx](#)

An inventory of the institution's course offerings with sustainability content (and course descriptions):

See attached spreadsheet for an inventory of courses with sustainability content as well as supporting documentation for academic department data.

The website URL where the inventory of course offerings with sustainability content is publicly available:

<http://sustainability.duke.edu/academics/courses/index.html>

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

Review of courses and course descriptions within the online course catalog that meet our definition of sustainability content. Courses are identified as either sustainability-related (some attention to sustainability) or sustainability-focused (primary attention to sustainability).

How did the institution count courses with multiple offerings or sections in the inventory?:

Each course was counted as a single course regardless of the number of offerings or sections

A brief description of how courses with multiple offerings or sections were counted (if different from the options outlined above):

Which of the following course types were included in the inventory?:

	Yes or No
Internships	No
Practicums	Yes
Independent study	No
Special topics	Yes
Thesis/dissertation	No
Clinical	Yes
Physical education	Yes
Performance arts	Yes

Does the institution designate sustainability courses in its catalog of course offerings?:

No

Does the institution designate sustainability courses on student transcripts?:

No

Learning Outcomes

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's students graduate from degree programs that include sustainability as a learning outcome or include multiple sustainability learning outcomes. Sustainability learning outcomes (or the equivalent) may be specified at:

- Institution level (e.g. covering all students)
- Division level (e.g. covering one or more schools or colleges within the institution)
- Program level
- Course level

This credit includes graduate as well as undergraduate programs. For this credit, "degree programs" include majors, minors, concentrations, certificates, and other academic designations. Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*. Programs that include co-curricular aspects may count as long as there is an academic component of the program. Learning outcomes at the course level count if the course is required to complete the program.

This credit is inclusive of learning outcomes, institutional learning goals, general education outcomes, and graduate profiles that are consistent with the definition of "sustainability learning outcomes" included in Standards and Terms.

Institutions that do not specify learning outcomes as a matter of policy or standard practice may report graduates from sustainability-focused programs (i.e. majors, minors, concentrations and the equivalent as reported for *AC 3: Undergraduate Program* and *AC 4: Graduate Program*) in lieu of the above criteria.

Submission Note:

In 2013-2014, 70 students graduated with degrees from multiple programs with sustainability learning objectives, including 38 undergraduates, 28 masters students, and 1 PhD student.

Several programs have been added to Duke's inventory of programs with sustainability learning objectives since our last submission. These programs existed -- likely with sustainability learning objectives -- at the time of our previous submission. They include the following:

- *Chemistry AB or BS with a concentration in Environmental Chemistry
- *History AB with concentrations in Human Rights & Social Movements and Race & Ethnicity
- *Political Science AB with concentration in Security, Peace, & Conflict
- *Interdepartmental AB with joint study in Economics & Environment, Economics & Public Policy, Economics & Sociology, and Environment & Sociology
- *Sociology PhD with concentrations in Economic Sociology; Stratification & Mobility; and Stratification, Mobility, & Labor Force Behavior

*PhD with a certificate in Toxicology & Environmental Health

Several programs with sustainability learning outcomes do not offer a terminal Master's degree. However, students leaving the PhD program may receive an MA or an MS. These students have been included.

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

Number of students who graduated from a program that has adopted at least one sustainability learning outcome:

1,799

Total number of graduates from degree programs:

4,578

A copy of the list or inventory of degree, diploma or certificate programs that have sustainability learning outcomes:

[AC-2 Learning Outcomes 2013-2014.xlsx](#)

A list of degree, diploma or certificate programs that have sustainability learning outcomes:

Nicholas School of the Environment (

<http://www.nicholas.duke.edu/about/mission-statement>

)

*AB in Environmental Sciences and Policy

*BS in Environmental Sciences

*AB in Earth and Ocean Sciences

*BS in Earth and Ocean Sciences

*Minor in Environmental Science and Policy

*Minor in Earth and Ocean Sciences

*Certificate in Energy and Environment

*Certificate in Marine Science and Conservation Leadership

*Master of Environmental Management Degree Program

*Master of Forestry Degree Program

*Certificate in Sustainable Systems Analysis (Masters students)

*PhD (Earth and Ocean Sciences, Environment, Marine Sciences and Conservation)

Chemistry (

<http://chem.duke.edu/undergraduate/requirements-chemistry-major>

)

*BS or AB with Environmental Chemistry concentration

Civil and Environmental Engineering (

<http://www.cee.duke.edu/undergraduate-studies>

-)
- *B.S.E. in Civil and Environmental Engineering
 - *MS in Civil and Environmental Engineering
 - *M.ENG. in Environmental Engineering
 - *M.ENG in Engineering Management
 - *PhD (Hydrology and Fluid Dynamics, Environmental Process Engineering)

Fuqua School of Business

- *MBA
- *PhD

Global Health Institute

- *Co-AB in Global Health
- *Minor in Global Health
- *Certificate in Global Health (Undergraduate or PhD)
- *MS in Global Health

History

- *AB in History, Human Rights & Social Movements concentration
- *AB in History, Race and Ethnicity concentration

Integrated Toxicology & Environmental Health Program (

<http://sites.nicholas.duke.edu/envhealth/about/faculty/>

-)
- *Certificate in Toxicology & Environmental Health (for PhD)

International Comparative Studies Program

- *AB in International Comparative Studies
- *Minor in International Comparative Studies

"Political Science

"

- *AB with concentration in Security, Peace, & Conflict

Sanford School of Public Policy

- *BA in Public Policy Studies
- *Master of International Development Policy (concentrations in Environmental Management & Policy, Peace & Conflict Resolution, and Social Policy)
- *Master of Public Policy
- *PhD

School of Nursing

- *BS in Nursing

School of Medicine

- *MD

Sociology

*PhD with concentrations in Economic Sociology, Stratification & Mobility, and Stratification, Mobility, & Labor Force Behavior

University Program in Ecology

*PhD in Ecology

A list or sample of the sustainability learning outcomes associated with degree, diploma or certificate programs (if not included in an inventory above):

Example learning outcomes from program websites

Nicholas School of the Environment: Bachelor of Arts in Environmental Sciences and Policy - The A.B. degree is designed for students interested in the interdisciplinary study of environmental issues. The major permits students to combine studies in natural sciences and engineering with courses in social sciences and humanities to develop particular focus areas or themes relevant to students' individual interests.

Solving the world's environmental problems requires an understanding not only of ecological systems but also of the cultural, social, economic, and political forces that act on those systems. The A. B. degree in Environmental Sciences and Policy provides students with this background.

Students who receive the A.B. degree in Environmental Sciences and Policy are well positioned for careers where the ability to think across traditional boundaries is valued. Possible careers include:

- * Environmental advising on Capitol Hill or in other local, state or federal government agencies
- * Environmental consulting
- * Research assistant
- * K-12 teaching
- * Environmental writing or publishing
- * Curriculum development
- * Education at museums or other outreach settings
- * Majors may also choose to enter a professional graduate program in law, business, public health, or public policy, in which their undergraduate major will provide the basis for specialization.

The A.B. degree stresses a firm foundation in basic natural and social sciences. The central core course, ENVIRON 101, relies on case studies to demonstrate the inherent interdisciplinary nature of environmental problems. Other requirements include a course in probability and statistics, a course in environmental policy, and an independent study, field experience or internship. The remaining required courses in the upper-level curriculum are selected in consultation with the student's advisor to address a specific theme, area of interest or career objective. At least two courses must be selected from each of the approved lists in natural sciences/engineering and social sciences/humanities.

Chemistry: Majors with a concentration in Environmental Chemistry must enroll in either ENVIRON 360 Environmental Chemistry and Toxicology, which includes the chemistry of pollutants and case studies focused on human health and ecosystem protection, or CE461L Chemical Principles in Environmental Engineering, which includes study of applied environmental systems such as water treatment, soil remediation, air pollution and green engineering.

Civil & Environmental Engineering: Our goals for the CEE program are to position our graduates to: use their knowledge and understanding of engineering sciences and design to advance their professional career; think critically when solving and managing tasks; communicate effectively in multidisciplinary, professional environments; exercise professional responsibility and sensitivity in the context of the social, economic, ethical and environmental implications of their engineering work; function effectively and efficiently as an individual and as a part of a team; and pursue life-long learning to earn relevant professional credentials (for example, licensure,

professional or graduate degrees).

Fuqua School of Business: excerpt from website - Connecting Disciplines – exploring how health, the environment, law and public policy are colliding with business. GLOBAL COMMITMENT - To remain true to our mission and produce global leaders of consequence, we are rethinking traditional geographic and intellectual boundaries. The world we now live in is multi-centric, globally interdependent, and dynamic. In order to play our part in addressing tomorrow's business challenges, we are becoming the world's first legitimately global business school, based in the economic and cultural hubs of world regions. These cities are in the countries that write their region's rules and set its cultural tone:

- Dubai, United Arab Emirates
- London, United Kingdom
- New Delhi, India
- Shanghai/Kunshan, China
- St. Petersburg, Russia

This global expansion is supported by the interdisciplinary culture and resources of Duke University.

Global Health Institute: Opportunities within the field of global health are expanding as the world becomes more interconnected. Recognizing that many global health problems stem from economic, social, environmental, political, and health care inequalities, Duke has designed a new paradigm in global health education and training... A required course for the certificate "introduces major global health problems and social, behavioral, economic, biomedical and environmental determinants of health in resource limited settings. Topics include communicable diseases i.e. HIV, malaria, tuberculosis and common childhood diseases; chronic diseases such as cancer, diabetes, cardiovascular disease and mental health; and determinants of health associated with these diseases, such as poverty, gender imbalance, culture, poor environmental sanitation, malnutrition, tobacco use, and climate change. Other topics may include health promotion, reproductive health, maternal and child health, and disaster preparedness."

History: *Concentration in Race & Ethnicity: At Duke, we are interested in what W. E. B. Du Bois so famously dubbed "the problem of the color line," as well as how race and ethnicity intertwine with other collective identities such as community or nation, class or gender. Although embodied and experienced individually, racial and ethnic identities have served to shape social interactions, set the boundaries of inclusion and exclusion, and guide allocations of resources and power... Coursework in racial formations, imperialism, social movements, and policy and political history all explore how race and ethnicity have been made in particular locales and historical moments, as well as how being racialized and ethnicized subjects has affected people's lived experience and material circumstance.

"Integrated Toxicology and Environmental Health Program (ITEHP): Research areas of ITEHP faculty are encompassed by three broad, intersecting themes:

*Human Environmental Health and Disease. This theme focuses on the impact of environmental influences on human health. Core focal areas include: (a) Cardio-pulmonary health and disease, (b) Development and children's health, (c) Neurological health and disease, (d) Cancer and the environment, and (e) Global environmental health.

*Exposure Science. This theme focuses on the impacts of environmental exposure on human health. ITEHP faculty have expertise in detection of organic pollutants including endocrine disrupters, pharmaceuticals, hydrocarbons, and flame retardants, inorganic pollutants including trace metals and metalloids, and organic and inorganic nanomaterials.

*Environmental Toxicology. The focus of this theme is to elucidate molecular mechanisms of action for toxins and other environmental influences on human health."

International Comparative Studies: The gateway core course examines capitalism and neo-liberal globalization and their relationships to culture, politics, economics, and other social forms and outcomes; considers the workings of transnationalism "from below"; explains and challenges linear and Western-centric thinking about progress and modernity; focuses a historical lens on a range of political discourses,

institutions, and projects (nationalist, statist, colonialist, imperialist, anti-colonialist, fundamentalist, and so on) in order to understand them contextually; demonstrates how cultures and identities are dynamically constituted in interaction with historical, material, political, and situational factors; considers how different kinds of inequality and contestation inflect most social formations and dynamics. The capstone seminar uses scholarship, literature and film to revisit some of the key critical transnationalism concepts and themes introduced in the ICS gateway course. Unifying critical transnationalism themes and topics are selected from the following: neo-liberal globalization and its consequences; inequality, power, and social justice; cultural and discursive formations; obstacles to and limits of constituting transnational or global communities in an interconnected world; interactions between identities and institutions on various scales; law, human rights, and memory projects.

School of Medicine: A required course in the MD program includes the following learning objective: Outline measured differences in access, quality and use of health care services for various local, national, and global populations, and outline the role of healthcare providers in contributing to disparity; explain the clinical and social implications for the disparate populations; be knowledgeable about the social determinants of health and social influence on health outcomes, including education, socio-economic status, race, gender, and other social influences; discuss the variety of challenges entailed in achieving health care parity.

School of Nursing: A required course for the BS in Nursing includes synthesizing the core public health functions while examining contemporary issues--locally, nationally, globally-- that increase risk or promote, maintain and restore health. Contemporary issues include health of immigrants and refugees, nursing care in disasters, person-health-environment interactions, and nursing's role in promoting social justice.

Sanford School of Public Policy: excerpt from School goals/learning outcomes-- As a liberal arts major, public policy studies teaches students to read critically, think analytically, and write concisely. Through rigorous coursework in multiple fields, including economics, statistics, political science, history and ethics; through electives in substantive areas; and through a policy oriented internship, PPS students learn how knowledge gained through research can be used to address domestic and international problems.

Mission Statement: A major in public policy studies aims to teach students how to make a difference in the complex policy issues of today. The curriculum provides students skills in political and economic analysis, knowledge about how to lead people and organizations, and a strong ethical foundation for decision-making.

The broad intellectual goals of any major should relate in some way to the goals of a liberal arts education. The Report on Yale College Education (April 2003), produced by a committee chaired by Richard Brodhead, listed the skills a liberal arts education should deepen. The public policy major at Duke encourages students to work toward the goals outlined in visions of a liberal arts education, which are also reflected in the Philosophy of Trinity College.

The goals of the major in public policy studies are both pedagogical and policy specific. First, we aim to create a learning environment in which students 1) draw on skills from multiple disciplines, 2) learn to write concisely and clearly, and 3) consider the ethical implications of their actions.

Second, the topics explored in the major should lead students 1) to think in terms of global problems and international relations, 2) to analyze the policies surrounding new advances in science (i.e., genomics) and technology (i.e., intellectual property and the Internet), and 3) to engage in solving important social problems.

In 1971, with the help of Professor Joel Fleishman, Sanford launched Duke's public policy program in order to educate a new kind of pragmatic, ethical leader prepared to contribute in any work sector. An equally important goal was to make it possible for scholars and policymakers to interact with, and learn from, each other.

Nearly 40 years later, our public policy program continues to grow in remarkable ways. This maturation led to Sanford becoming Duke's tenth School in 2009. The change is attracting creative scholars to our faculty, which has grown by 50 percent in the last four years.

These scholars deepen our capacity to teach core analytical skills. They also expand our depth of expertise in environmental and energy policy, global governance and development policy, communications policy, child policy, social policy, and global health and population. Our leadership program, our visiting journalists program and numerous active research centers in areas such as philanthropy and civil society are bringing in fresh, outside perspectives. Students are benefiting from increased research opportunities and financial aid, and closer mentoring.

University Program in Ecology (UPE): A required course for UPE is "Ecological perspectives: Ecophys to Ecosystems", which includes a focus on human impacts that affect the movements of energy and materials in ecosystems.

The website URL where information about the institution's sustainability learning outcomes is available:

Undergraduate Program

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution offers at least one:

- Sustainability-focused program (major, degree program, or equivalent) for undergraduate students

And/or

- Undergraduate-level sustainability-focused minor or concentration (e.g. a concentration on sustainable business within a business major).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

Submission Note:

The Nicholas School has formally proposed an undergraduate experiential certificate program in sustainability engagement that will combine coursework with extensive, reflective experiences in the world. It may be available for students beginning in the fall of 2015.

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

Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for undergraduate students?:

Yes

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

Environmental Sciences and Policy

A brief description of the undergraduate degree program (1st program):

The A.B. degree is designed for students interested in the interdisciplinary study of environmental issues. The major permits students to combine studies in natural sciences and engineering with courses in social sciences and humanities to develop particular focus areas or themes relevant to students' individual interests.

Solving the world's environmental problems requires an understanding not only of ecological systems but also of the cultural, social, economic, and political forces that act on those systems. The A. B. degree in Environmental Sciences and Policy provides students with this background.

Students who receive the A.B. degree in Environmental Sciences and Policy are well positioned for careers where the ability to think across traditional boundaries is valued. Possible careers include:

Environmental advising on Capitol Hill or in other local, state or federal government agencies

Environmental consulting

Research assistant

K-12 teaching

Environmental writing or publishing

Curriculum development

Education at museums or other outreach settings

Majors may also choose to enter a professional graduate program in law, business, public health, or public policy, in which their undergraduate major will provide the basis for specialization.

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

<http://www.nicholas.duke.edu/programs/undergrad/bachelor-of-arts-in-environmental-sciences-and-policy>

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

Environmental Sciences

A brief description of the undergraduate degree program (2nd program):

The B.S. degree is designed for students interested in a scientific perspective on environmental issues. The major is designed to encourage breadth in the physical and life sciences and depth in a chosen area of scientific concentration, such as marine ecosystems, toxicology, hydrology and chemical cycling, or climate change. Students who receive the B.S. in Environmental Sciences are prepared for graduate study in a related field. They may also wish to pursue one of the following careers:

Environmental advising on Capitol Hill or in other local, state or federal government agencies

Environmental consulting

K-12 education

Research assistant in a university, institute, or other scientific agency

Education at museums or other outreach settings

Majors may also choose to enter a professional graduate program in medicine, law, business, or public health.

The B.S. degree stresses a firm foundation in the physical and life sciences and mathematics. Students are required to select five courses from six course options that focus on the atmosphere, the biosphere, chemical cycling, the solid earth, the hydrosphere, and the interface between humans and the environment. A probability and statistics course is also required. The remaining required courses in the upper-level curriculum are selected from the natural sciences, engineering and mathematics in consultation with the student's advisor to form a concentration area.

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

<http://www.nicholas.duke.edu/programs/undergrad/bachelor-of-science-in-environmental-sciences>

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

Earth and Ocean Sciences

A brief description of the undergraduate degree program (3rd program):

The A.B. degree in Earth and Ocean Sciences is designed as a flexible major for those students interested in the Earth, its atmosphere and the oceans. The major is intended to provide a general knowledge of the processes that shape and control the environment in which we live.

Students who receive the A.B. degree in Earth and Ocean Sciences may follow many different career paths, including:

Research at government agencies or in the nonprofit world

Policy advising in government agencies or think tanks

Science or nature writing or publishing

K-12 teaching

Science curriculum development

Outdoor education

Interpretation at museums and state or national parks

They may also attend a professional school in law, business, public policy, etc., using their undergraduate major as the basis for a sub specialization.

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

<http://nicholas.duke.edu/programs/bachelor-arts-earth-ocean-sciences>

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

Program II (in the past, students interested in environmental sustainability have used the Program II track to mix their environmental studies with a focus on business, social studies, the arts or another science).

<http://program2.duke.edu/>

Does the institution offer one or more sustainability-focused minors, concentrations or certificates for undergraduate students?:

Yes

The name of the sustainability-focused undergraduate minor, concentration or certificate (1st program):

Minor in Environmental Science and Policy

A brief description of the undergraduate minor, concentration or certificate (1st program):

The Nicholas School offers an option for a minor in Environmental Science and Policy. This minor complements majors in Public Policy, Biology, Chemistry, Evolutionary Anthropology, and Earth and Ocean Science among others.

Minor Requirements. The minor consists of five courses: two core courses; the remaining three courses selected from the 200-level and above ENVIRON or EOS courses, and may include one approved substitution of a course in another department.

Core Courses:

ENVIRON 102(25): Introduction to Environmental Sciences and Policy (a survey course; taught in the Fall and Spring). Students with AP credit must select an additional ENVIRON course in place of ENVIRON 102 (25) to equal five courses.

ENVIRON 201(101): Integration of Environmental Sciences and Policy (a case-based course that develops conceptual frameworks for interdisciplinary analysis of environmental problems using examples from local, regional and global levels).

The website URL for the undergraduate minor, concentration or certificate (1st program):

<http://nicholas.duke.edu/programs/minor-environmental-science-policy>

The name of the sustainability-focused undergraduate minor, concentration or certificate (2nd program):

Minor In Earth & Ocean Sciences

A brief description of the undergraduate minor, concentration or certificate (2nd program):

The Division of Earth and Ocean Sciences offers an option for a minor in Earth and Ocean Sciences. This minor complements majors in Public Policy, Biology, Chemistry, Biological Anthropology and Anatomy, among others.

Minor Requirements. Earth and Ocean Sciences 101(11) or 102(12), plus any four additional Earth and Ocean Sciences courses, of which three must be 200-level or higher.

The website URL for the undergraduate minor, concentration or certificate (2nd program):

<http://nicholas.duke.edu/programs/minor-earth-ocean-sciences>

The name of the sustainability-focused undergraduate minor, concentration or certificate (3rd program):

Certificate in Energy and the Environment

A brief description of the undergraduate minor, concentration or certificate (3rd program):

The Certificate in Energy and the Environment is designed to provide Duke undergraduates with an understanding of the breadth of issues that confront our society in its need for clean, affordable and reliable energy. An expertise in energy will expand career options in the private, non-profit, government and academic sectors. The goal of the Certificate is to develop innovative thinkers and leaders who understand the energy system as a whole and the important interconnections among policy, markets, technology and the environment.

The website URL for the undergraduate minor, concentration or certificate (3rd program):

<http://nicholas.duke.edu/programs/certificate-energy-and-environment-undergraduates-only>

The name, brief description and URL of all other undergraduate-level sustainability-focused minors, concentrations and certificates:

<http://nicholas.duke.edu/programs/undergraduate-degrees>

Graduate Program

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution offers at least one:

- Sustainability-focused program (major, degree program, or equivalent) for graduate students

And/or

- Graduate-level sustainability-focused minor, concentration or certificate (e.g. a concentration on sustainable business within an MBA program).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

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

Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for graduate students?:

Yes

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

Master of Environmental Management

A brief description of the graduate degree program (1st program):

Our renowned residential Master of Environmental Management (MEM) program teaches students how to analyze and manage natural environments for human benefit and ecosystem health.

Students benefit from daily interaction with their peers and our distinguished faculty while completing their course requirements and pursuing a master's project. The program lasts two years (four semesters).

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

<http://www.nicholas.duke.edu/programs/professional/mem>

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

Doctorate of Environment

A brief description of the graduate degree program (2nd program):

The mission of the Division of Environmental Sciences and Policy is education, research, and service focused towards an understanding of environmental processes, predicting and managing human effects, and developing approaches to study the interactions between environmental processes and human behavior.

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

<http://nicholas.duke.edu/programs/doctoral-degrees-environment>

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

Master of Forestry

A brief description of the graduate degree program (3rd program):

Our Master of Forestry (MF) program equips graduates for careers as expert environmental problem-solvers in forest ecology and management. Our goal is to create leaders with a progressive outlook in the forestry field.

During this two-year (four-semester) program, students gain the skills needed to manage forests for a variety of uses, including timber, nontraditional forest products, and conservation. Students enjoy close proximity to Duke Forest and benefit from hands-on experience as they pursue their coursework and complete a master's project.

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

<http://nicholas.duke.edu/programs/mf>

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

<http://nicholas.duke.edu/programs/doctoral-degrees>

Does the institution offer one or more graduate-level sustainability-focused minors, concentrations or certificates?:

Yes

The name of the graduate-level sustainability-focused minor, concentration or certificate (1st program):

Sustainable Systems Analysis Certificate

A brief description of the graduate minor, concentration or certificate (1st program):

Campus Sustainability Data Collector | AASHE

In-depth knowledge of sustainable sciences and sustainable systems theory as applied to global industry, supply chains and commerce.

Theoretical foundations and hands-on training in analytics to measure and report on firm, product and innovations for sustainability.

Multi-disciplinary project management skills to become organizational and technological innovators for sustainability and targets for hire by companies.

The website URL for the graduate minor, concentration or certificate (1st program):

<http://sites.nicholas.duke.edu/sustainableystems/>

The name of the graduate-level sustainability-focused minor, concentration or certificate (2nd program):

Energy and the Environment

A brief description of the graduate minor, concentration or certificate (2nd program):

The EE concentration trains students to work toward a sustainable energy future through a focus on innovative thinking and a fundamental understanding of the interconnections among policy, markets, technology, and the environment. It equips students for positions focused on transitioning from conventional to sustainable energy.

The website URL for the graduate minor, concentration or certificate (2nd program):

<http://nicholas.duke.edu/programs/ee>

The name of the graduate-level sustainability-focused minor, concentration or certificate (3rd program):

Global Environmental Change (GEC)

A brief description of the graduate minor, concentration or certificate (3rd program):

The Global Environmental Change (GEC) program trains students to analyze environmental changes that occur on a variety of temporal and spatial scales and to anticipate and respond to management and policy issues that arise from these changes. Global environmental change includes global climate change as well as widespread changes in the world's terrestrial environments, oceans, and coastlines. These changes, in turn, are affecting the well-being of human populations and of biological components of the global system.

The GEC program provides an integrated package of fundamental environmental science, analytical skills, and management and policy training. Graduates of the program will be well equipped to serve as environmental analysts and managers bridging the gap between advances in the science of global change and the policy initiatives needed to manage the consequences of global change. The program is designed to provide the necessary background for students to develop careers in public, private, or nonprofit sectors, or to pursue further studies in environmental science and policy. The program has particular strengths in global climate change, biodiversity, coastal environmental change, and earth surface processes, with faculty participating in a wide range of activities in these areas. Students in the GEC program have close interactions with a number of Duke centers, including the Center for Global Change, the Nicholas Institute for Environmental Policy Solutions, and the Duke University Marine Laboratory.

The website URL for the graduate minor, concentration or certificate (3rd program):

<http://nicholas.duke.edu/programs/gec>

The name and website URLs of all other graduate-level, sustainability-focused minors, concentrations and certificates:

<http://nicholas.duke.edu/programs/mem>

Immersive Experience

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution offers at least one immersive, sustainability-focused educational study program. The program is one week or more in length and may take place off-campus, overseas, or on-campus.

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

- It concentrates on sustainability, including its social, economic, and environmental dimensions

And/or

- It examines an issue or topic using sustainability as a lens.

For-credit programs, non-credit programs and programs offered in partnership with outside entities may count for this credit. Programs offered exclusively by outside entities do not count for this credit.

See the Credit Example in the STARS Technical Manual for further guidance.

Submission Note:

DukeEngage Kenya-Kakamega Program:

<http://dukeengage.duke.edu/immersion-programs/international-programs/kenya-kakamega>

DukeEngage Portland Program:

<http://dukeengage.duke.edu/about-dukeengage/dukeengage-green/the-portland-program>

Global Education at Duke:

<http://globaled.duke.edu/Programs>

School for International Training (SIT):

<http://www.sit.edu/studyabroad/>

School for Field Studies

<http://www.fieldstudies.org/>

Does the institution offer at least one immersive, sustainability-focused educational study program that meets the criteria for this credit?:

Yes

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

Duke offers students two sustainability-focused immersive experiences: civic engagement immersion through DukeEngage and study abroad programs.

DukeEngage, launched in 2007, empowers students to address critical human needs through immersive service (minimum of eight weeks). All student participants are fully funded, and since the program began more than 2800 Duke students have participated.

The civic engagement activities in each DukeEngage program involve at least one environmental, social, or economic dimension of sustainability, including environmental advocacy, community outreach, global health, education, and social justice. Multiple programs involve two or three dimensions. Programs with thematic areas in environmental advocacy and sustainability have been offered in the United States in Louisiana, North Carolina, Oregon, and Washington State, and internationally in Argentina, Ecuador, India, Jordan, Kenya, Peru, South Africa, Thailand, and Uganda.

For example, DukeEngage Kenya-Kakamega is organized by the Foundation for Sustainable Development, which promotes collaboration with communities to enhance the capacity of individuals and organizations to address local health, social, environmental, and economic issues for long-term development. Students work with partner organizations on specific projects. Recent students have...

*Designed rain water harvesting systems for local schools and trained schoolteachers to construct and maintain the systems, then conducted hygiene and health workshops with all students and faculty.

*Trained youth groups in waste management theory and how to run a business through turning garbage into income generating materials such as compost and charcoal briquettes.

Since 2010, DukeEngage has supported students in the "Managing Environmental Organizations" program in Portland, Oregon. This program is the first DukeEngage program that systematically fosters a holistic marriage of service to the environment with a personal commitment to voluntary simplicity and sustainable living. Students assess their carbon footprints through a personal carbon calculator, which tracks participants' behavior and monitors electricity usage, modes of transportation, and dietary decisions. The Portland program educates students on ways to reduce their carbon footprint through the use of public transportation; maintaining a vegetarian, locally focused, organic diet; and additional environmentally focused lifestyle choices. The group also participates in environmental projects in Portland on the weekends to collectively offset carbon that is not eliminated through behavioral changes, including beach cleanups, community gardens, and tree planting.

Duke's Study Abroad Office has approved several sustainability programs hosted by other organizations. The School for International Training (SIT) Study Abroad programs give students the opportunity to grapple with the complexities of critical issues such as global health, sustainable development, biodiversity, human rights, migration, and peacebuilding. Multiple programs engage with all three dimensions of sustainability. For example, major topics of study in the SIT program Peru: Indigenous Peoples & Globalization include "Indigenous rights, advocacy, and policy; Community empowerment; Identity recognition; Historical legacies and contemporary social movements; Impacts of global changes: society, culture, economy, and ecology." The program IHP/Comparative: Climate Change: The Politics of Food, Water, and Energy "examines the interconnections between the economics, politics, geography, and science of climate change and its effects on human society."

The School for Field Studies (SFS) sustainability-focused programs include Sustainable Development Studies in Costa Rica, where students "examine management schemes, identify the benefits of protected areas, and determine which systems offer the best option for

economic development, the maintenance of cultural norms, and the preservation of biodiversity."

The website URL where information about the immersive program(s) is available:

<http://dukeengage.duke.edu/about-dukeengage>

Sustainability Literacy Assessment

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution conducts an assessment of the sustainability literacy of its students. The sustainability literacy assessment focuses on knowledge of sustainability topics and may also address values, behaviors and/or beliefs. Assessments that focus exclusively on values, behaviors and/or beliefs are not sufficient to earn points for this credit.

Institution may conduct a follow-up assessment of the same cohort group(s) using the same instrument.

This credit includes graduate as well as undergraduate students.

Submission Note:

Duke has begun piloting the Sustainability Literacy Test as an assessment tool and is now planning how to use the Sustainability Literacy Test to assess sustainability literacy systematically among a representative sample of undergraduates.

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

The percentage of students assessed for sustainability literacy (directly or by representative sample) and for whom a follow-up assessment is conducted:

0.16

The percentage of students assessed for sustainability literacy (directly or by representative sample) without a follow-up assessment:

0.23

A copy of the questions included in the sustainability literacy assessment(s):

The questions included in the sustainability literacy assessment(s) :

Questions used in the Sustainability Literacy Test are not publicly available. Questions in the Sustainability Literacy Test pool may be viewed by registering for and taking the Sustainability Literacy Test.

<http://www.sustainabilitytest.org/>

A brief description of how the assessment(s) were developed:

The Sustainability Literacy Test is a sustainability literacy assessment initiative being developed by an international team, under the advisory guidance of several educational organizations in the United Nations. Each student receives questions pulled from the total pool of questions, such that each student is asked about economics, social justice, and the environment, and each student receives international and region-specific questions. More information at

<http://www.sustainabilitytest.org/>

A brief description of how the assessment(s) were administered:

In the spring of 2014, 25 graduate students in one course took the SLT one time over a two-week period outside of class in order to pilot the Sustainability Literacy Test and provide feedback about the process of taking the test.

In the fall of 2014 (outside of the primary reporting period for this submission), about 10 more students took the SLT one time outside of a class structure. Also in the fall of 2014, 25 undergraduate students enrolled in ENVIRON 245: Sustainability Theory & Practice took the SLT at the beginning and end of the semester.

A brief summary of results from the assessment(s):

The purpose of administering the Sustainability Literacy Test in spring 2014 was primarily to collect student feedback on the process of taking the assessment. Feedback from these students and from faculty and staff who also took the assessment was provided to the SLT developers. Student scores were poorer on sections of the exam related to social sustainability than environmental sustainability.

In the fall of 2014, an additional 25 undergraduate students enrolled in a sustainability course took the SLT at the beginning and end of the semester, showing improvement in their scores in the post-test.

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

<http://www.sustainabilitytest.org/>

Incentives for Developing Courses

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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 specifically 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.

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

Does the institution have an ongoing incentives program or programs that meet the criteria for this credit?:

Yes

A brief description of the program(s), including positive outcomes during the previous three years:

Duke's annual faculty development workshop on Leadership for Sustainability Across the Curriculum began in 2010. Over the five workshops, 67 Duke affiliates, including 46 faculty members, have participated in one- or two-day workshops of presentations, exercises, and discussions. At least 16 collegiate and K-12 educators from neighboring institutions have also participated. Participants reflect on new teaching methods, interdisciplinary connections with sustainability, opportunities for students' civic engagement around sustainability, and their own roles as campus leaders. In the following year, past fellows contribute from their growing expertise.

A brief description of the incentives that faculty members who participate in the program(s) receive:

Faculty participants in Duke's Sustainability and Curriculum workshop receive a stipend of \$500 for attending the workshop, incorporating sustainability into a course, writing a blog post about their experience, and providing the program with a new or revised syllabus indicating the sustainability components. They also become a part of a growing community of diverse faculty interested in incorporating sustainability in course curricula.

The website URL where information about the incentive program(s) is available:

<http://sites.duke.edu/trillium/>

Campus as a Living Laboratory

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution is utilizing its infrastructure and operations for multidisciplinary student learning, applied research and practical work that advances sustainability on campus in at least one of the following areas:

- Air & Climate
- Buildings
- Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Coordination, Planning & Governance
- Diversity & Affordability
- Health, Wellbeing & Work
- Investment
- Public Engagement
- Other

This credit includes substantive work by students and/or faculty (e.g. class projects, thesis projects, term papers, published papers) that involves active and experiential learning and contributes to positive sustainability outcomes on campus (see the Credit Example in the [STARS Technical Manual](#)). On-campus internships and non-credit work (e.g. that take place under supervision of sustainability staff or committees) may count as long as the work has a learning component.

This credit does not include immersive education programs, co-curricular activities, or community-based work, which are covered by AC 5: *Immersive Experience*, credits in the Campus Engagement subcategory, and credits in the Public Engagement subcategory, respectively.

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

Is the institution utilizing the campus as a living laboratory in the following areas?:

	Yes or No
--	-----------

Air & Climate	Yes
Buildings	Yes
Dining Services/Food	Yes
Energy	Yes
Grounds	Yes
Purchasing	Yes
Transportation	Yes
Waste	Yes
Water	Yes
Coordination, Planning & Governance	Yes
Diversity & Affordability	---
Health, Wellbeing & Work	Yes
Investment	Yes
Public Engagement	Yes
Other	Yes

A brief description of how the institution is using the campus as a living laboratory for Air & Climate and the positive outcomes associated with the work:

Since 1931, the Duke Forest has provided research opportunities for Duke University faculty and students in the fields of forestry, botany, zoology, and environmental science. Today the Forest is also used by local universities, as well as universities and institutions across the country, to study natural resource, environmental, ecological, and earth science issues. These include both short and long-term research projects covering such diverse topics as plant ecology, invertebrate zoology, forest economics, and global climate change.

The Duke Forest near Durham, NC, is home to a range of free-air carbon enrichment (FACE) experiments that are helping to answer questions about how forests adapt to rising levels of atmospheric carbon dioxide, and the effects of those adaptations on how and where trees store, or sequester, carbon.

Currently, there are two weather stations collecting data on the Duke Forest, both located in the Blackwood Division in Orange County. Data can be downloaded from these stations, dating back to 2000.

More on outcomes of research can be found here:

<http://www.srs.fs.usda.gov/compass/issue10/expforests.htm>

A brief description of how the institution is using the campus as a living laboratory for Buildings and the positive outcomes associated with the work:

The goal of the Duke Smart Home Program is to offer a research and educational program that emphasizes energy efficient, sustainable and ‘smarter’ living. Smarter living is defined as using technology for automation in a way that encourages behavior we want and need to achieve our values of energy efficient, sustainable living. The program operates and manages The Home Depot Smart Home as an evolving resource purposefully used to inform our ideas about sustainable, energy efficient, smart living.

The Duke Smart Home Program offers numerous opportunities for Duke students to pursue independent research and implementation projects on sustainability, energy efficiency, quality of life and home technology.

The Smart Home's goal is to provide the resources, guidance and infrastructure to move as many projects—whether for-credit or non-credit, student or faculty generated—through the design process and to an install ready stage. The design process is defined as a progress from an idea to planning, to developing a proof of concept, to building actual prototypes, to achieving an install-ready technology. The overarching goal is to install at least one student/faculty-derived technology in the smart home dorm each year.

Examples of successful student projects can be found here:

<http://smarthome.duke.edu/research>

A brief description of how the institution is using the campus as a living laboratory for Dining Services/Food and the positive outcomes associated with the work:

A 2014 Master's Project from a student at the Nicholas School of the Environment titled "Sustainable Food Sourcing in Higher Education: Definition and Goal-Setting for Duke University" helped to establish definitions of sustainable food at Duke. This study used semi-structured interviews, focus groups, and collection of material culture to evaluate Duke University's current sustainable food procurement initiatives and to research how peer institutions create and track progress towards sustainable food goals. Based on this research, the student researcher recommended a definition of sustainable food for Duke University in six product categories. The research also gives broad guidelines for “best practices” in setting and maintaining sustainable sourcing goals in dining services.

A brief description of how the institution is using the campus as a living laboratory for Energy and the positive outcomes associated with the work:

A 2014 Master's Project from students at the Nicholas School of the Environment titled "Duke University Health System Demand Response Prospectus" explored the profitability and environmental impacts of enrolling Duke University Health System and Duke University into Duke Energy's PowerShare demand response program. Student researchers analyzed the economic, environmental, and regulatory feasibility of using Duke University and Duke Medicine emergency generators in a Duke Energy demand response program

called PowerShare, more specifically the Generator Curtailment Option. Duke Carbon Offset Initiative credits, a Duke University funding mechanism to reduce carbon dioxide emissions, were also considered as a potential revenue source. In order to conduct the analysis, an MS Excel and Visual Basic model was created to calculate the impacts of enrollment. The model provided to the client was designed to offer an easy user interface to quickly conduct the analyses. It was also specially designed to offer the flexibility to incorporate future changes in the energy market and user preferences.

The model results indicated that, while feasible, demand response enrollment is not currently attractive from environmental and financial perspectives. From an environmental perspective, PowerShare is also not a favorable option. Instead of offering a carbon emissions reduction opportunity, PowerShare participation is actually expected to increase the amount of global carbon emissions because Duke University generators emit more carbon than Duke Energy's natural gas peak usage plants.

A brief description of how the institution is using the campus as a living laboratory for Grounds and the positive outcomes associated with the work:

In 2014 a student team in the course ENV 245: Theory and Practice of Sustainability completed a client-based project titled "Natural Resource Management: Save Our Trees! Battling the Cankerworms". The project client was Duke's Natural Resource Manager, from the grounds team of Facilities Management at Duke. Cankerworms are native pests that have reached epidemic levels likely due to a combination of climate change, elderly trees in Durham, and a decline in migratory bird species. To control this issue, citizens put sticky bands on their trees to catch the moths before they lay their eggs. Currently, the city, county and Duke are working together to put on workshops to educate the public, and to get students to help band trees.

Outcomes of the project included: A strategy for recruiting students to help band trees on campus, and how to reach people in the surrounding community, and an evaluation of the effectiveness of the information session, including information about what people knew before the sessions versus after, and if the sessions were helpful.

A brief description of how the institution is using the campus as a living laboratory for Purchasing and the positive outcomes associated with the work:

A 2013 Master's Project from students at the Nicholas School of the Environment titled "Sustainable Duke: Procurement & Waste" explored the effectiveness of Duke's current sustainable procurement policies and practices through website information review and interviews. Additionally, the students investigated the widely varying sustainable procurement approaches used by thirty other institutions of higher education to evaluate their relative merits. The student team recommended that Duke move to a more centralized purchasing system and proposed several suggestions to promote sustainable purchasing which have been taken under consideration by the Procurement department at Duke.

A brief description of how the institution is using the campus as a living laboratory for Transportation and the positive outcomes associated with the work:

A 2014 Master's Project from a student at the Nicholas School of the Environment titled "An Environmental and Economic Analysis of Converting Duke University's Police Fleet to Alternatively Powered Vehicles" analyzed the possibility for Duke University's Police fleet to serve as a visible platform for demonstrating progress toward the University's commitment to be carbon neutral by 2024. By working with the Duke University's Police Department and Duke's Sustainability Office, an in-depth analysis of fleet characteristics and officer needs was performed with the intention of identifying suitable alternatively fueled or powered replacement fleet vehicles. By focusing on minimizing lifetime costs, annual fuel costs, and lifetime carbon dioxide (CO₂) emissions, multiple vehicles and technologies have shown the potential to reduce lifetime fuel costs by over \$100,000 and lifetime GHG emissions by 200 tons. Duke University Police have since begun to alter their vehicle purchases, beginning with an electric recumbent bicycle produced locally from Organic Transit.

A brief description of how the institution is using the campus as a living laboratory for Waste and the positive outcomes associated with the work:

A 2014 Master's Project from a student at the Nicholas School of the Environment titled "Rethinking the Supply Chain: Uncovering Value with a Zero Waste-to-Landfill Initiative at Wallace Wade Football Stadium" informed a waste free football program that was launched at Duke in Fall 2014. The program led to a waste diversion rate of as high as 65% from stadium and tailgate areas during its pilot season.

A brief description of how the institution is using the campus as a living laboratory for Water and the positive outcomes associated with the work:

In the summer of 2013, Duke started construction on a \$9 million reclamation pond that will sit on a 12-acre site on campus. This pond will provide a place for education and research while also providing approximately 100 million gallons of nonpotable water for use in the campus chilled water plant. The pond, started purely as a utility initiative to save potable water in the campus chilled water system, has expanded to an educational and recreational amenity for campus.

In 2013, a student team in the course ENV 245: Theory and Practice of Sustainability completed a client-based project titled "More than Utility: educational, recreational, and research uses of the new Duke Water Reclamation Pond". Students on this team examined how Duke could balance the potentially competing and interdependent uses of this facility and measure its impact over time. How could Duke balance the ecosystem, educational, recreational and utility aspects of the Duke Water Reclamation Pond? How does a campus create a healthy, functional ecosystem while providing a necessary resource for campus education and utilities? Students researched other similar projects such as the Dells at UVA to see how peer institutions have tackled these questions. They also considered the broader implication of the Pond in Duke's stormwater management system and the local watershed. Students worked with clients to develop educational materials for the Pond to develop the "story" of this place on campus and to provide insight into the numerous benefits it provides to Duke. The students suggested creating an educational website, producing an informational video, and proposed topics for information signs. They produced a prototype of the website and video.

A brief description of how the institution is using the campus as a living laboratory for Coordination, Planning & Governance and the positive outcomes associated with the work:

Student research and course integration has consistently been a part of sustainability planning and governance at Duke University. For example, in 2014 a student team in the course ENV 245: Theory and Practice of Sustainability completed a client-based project titled, "What type of innovative carbon offset projects are other ACUPCC schools undertaking and what can Duke University learn from these projects?". The project's client was the program manager of the Duke Carbon Offsets Initiative. The Duke Carbon Offsets Initiative (DCOI) manages multiple projects that generate carbon offsets for the University including a swine waste-to-energy system and an energy efficiency employee benefit program. DCOI asked the student team to explore potential future projects for the University by researching what other ACUPCC schools have accomplished. Some questions the students answered include:

1. What ACUPCC schools are closest to reaching carbon neutrality?
2. What types of projects are these schools developing?
3. How could we compare expense, innovation, ease of management, benefits (social, educational, economic)?

By exploring these questions, the ENV 245 team provided valuable information that helped DCOI determine what types of offset projects to pursue in the future.

A brief description of how the institution is using the campus as a living laboratory for Diversity & Affordability and the positive outcomes associated with the work:

A brief description of how the institution is using the campus as a living laboratory for Health, Wellbeing & Work and the positive outcomes associated with the work:

In fall 2014, the Duke Campus Farm served as a client for a student team in the ENV 245: Theory and Practice of Sustainability course. This project include an additional client, a Duke employee who works in the Health System with a particular interest in the role medicinal herbs can play in health and wellness. With the guidance of the clients, the student team researched, developed, and cultivated a herb garden at the Duke Campus Farm, with a special emphasis on medicinal herbs. The students determined what kinds of herbs would bring the most benefit to the farm, and best sustain the human, animal, and plant ecologies that the farm supports. The Duke employee provided guidance to the team in a mutually beneficial relationship that strengthened the knowledge of both the students and employees, plus provided a hands-on outdoor reprieve from daily work and study responsibilities.

A brief description of how the institution is using the campus as a living laboratory for Investment and the positive outcomes associated with the work:

In 2011 and 2012 teams of Master's students from the Nicholas School of the Environment explored the financial viability of investing in Blue Carbon projects to generate carbon offsets for Duke University. The 2012 project titled "Business Plan for a Blue Carbon Project" created a business plan to outline a project for Duke Carbon Offset Initiative (DCOI) to engage in an innovative offset category, Blue Carbon. DCOI's goal is to assist the university in meeting its 2024 objective of becoming carbon neutral. While the campus has made significant strides in reducing energy use and increasing efficiency, there are some emissions of CO₂ and other green house gasses (GHG) that cannot feasibly be eliminated. For these sources, Duke University has begun exploring and developing carbon offset projects across North Carolina. This Blue Carbon project evaluated the potential for DCOI to become involved in a fast developing and newly identified offset site on the NC coastline. DCOI continues to monitor the viability of a Blue Carbon project while comparing the financial investment with offset projects in a variety of other categories.

A brief description of how the institution is using the campus as a living laboratory for Public Engagement and the positive outcomes associated with the work:

A 2014 group Master's Project from students at the Nicholas School of the Environment titled "Energy Efficiency Carbon Offsets" with the Duke Carbon Offsets Initiative as a client, explored engaging the Duke and Durham communities in developing carbon offsets for Duke University through home energy efficiency projects. The group of three Nicholas School of the Environment Master's candidates prepared a program for DCOI to implement energy efficiency measures in the homes of Duke community members faculty, staff and students, and generate carbon offsets. This program will aid Duke in achieving its carbon neutrality goal by reducing off campus carbon emissions.

Duke University aims to achieve carbon neutrality by 2024 by a combination of efforts to reduce on campus energy consumption and off campus carbon offset generation. One of the offset options that DCOI is evaluating is energy efficiency retrofits in residential buildings leading to indirect emission reductions. The problem we have attempted to address in our project is how Duke University can identify potential carbon offset opportunities in terms of improving energy efficiency in homes and businesses and how these offsets can be verified and quantified.

In order to determine the feasibility of energy efficiency carbon offsets the team started with evaluating data from a similar residential retrofitting project implemented by the City of Durham's Sustainability Office. The pre and post retrofit energy consumption data from these houses was analyzed to determine the energy savings and resultant carbon emissions reduction. The average emission reduction obtained from this project was then used to determine the carbon price. This carbon price was used to conduct a comparative analysis with carbon prices found in the market, literature and regulations. The second step of the project involved studying energy efficiency retrofit projects that have been undertaken in other regions at various levels and sizes. The last question that this project aimed to answer for DCOI was regarding the suitability of various financing mechanisms for the retrofitting project. In order to address this question a demand assessment survey was designed to determine the willingness of Duke employees to participate in such a program and pay for the retrofits.

This research has led to several ongoing pilot rounds of energy efficiency projects in employee homes. Read more:

<http://today.duke.edu/2015/01/homeenergy>

A brief description of how the institution is using the campus as a living laboratory in Other areas and the positive outcomes associated with the work:

Through an arts festival focused on environmental issues and direct research and course collaborations, Duke is using the campus as a living laboratory to understand the intersection of environment and the arts. In 2013 a student team in the course ENV 245: Theory and Practice of Sustainability completed a client-based project titled, "How can students, faculty, and a local environmental artist produce a piece of sustainable art in a public space on Duke's campus?"

Duke's commitment to climate neutrality and sustainability includes a promise to take actions that infuse these topics into the curriculum and other educational experience for all students. The Education Subcommittee of the Campus Sustainability Committee wishes to move sustainability more explicitly into disciplines less likely to be traditionally connected with this concept, such as arts and arts education. Therefore, through funding provided by the Duke Council for the Arts, and in collaboration with local environmental artist Bryant Holsenbeck, are Art faculty Bill Fick, a team of students designed "Bottlefall," a piece of public art made from bioplastic beverage bottles, gained approval for temporary installation on campus, and installed it in the CIEMAS lobby of the Pratt School of Engineering. Creating art with found objects allows many to participate in the creative process by collecting materials that will form the installation. Participants become part of a dynamic, relevant, and contemporary form of art making. Further, making art out of "stuff" we usually throw away or recycle empowers us, both with knowledge and with an intrinsic internal awareness of the volume we produce and the importance of considering relevant behavior change. Finally, materials costs are reduced as a result of sourcing disposed or recycled materials. For this project, the team also developed a handbook documenting useful steps and resources for creating art in public spaces on Duke's campus.

The website URL where information about the institution's campus as a living laboratory program or projects is available:

<http://sustainability.duke.edu/academics/CSCProjects.html>

Research

This subcategory seeks to recognize institutions that are conducting research on sustainability topics. 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
Academic Research
Support for Research
Access to Research

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution's faculty and/or staff conduct sustainability research and the institution makes an inventory of its sustainability research publicly available.

Part 2

Institution's academic departments (or the equivalent) include faculty and staff who conduct sustainability research.

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

In order to report for this credit, the institution should conduct an inventory to identify its sustainability research activities and initiatives.

Each institution is free to choose a methodology to identify sustainability research that is most appropriate given its unique circumstances. For example, an institution may distribute a survey to all faculty members and ask them to self-identify as being engaged in sustainability research or ask the chairperson of each department to identify the sustainability research activities within his or her department. The research inventory should be based on the definition of "sustainability research" outlined in Standards and Terms and include, at minimum, all research centers, laboratories, departments, and faculty members whose research focuses on or is related to sustainability.

Submission Note:

To estimate total faculty and staff engaged in research, we

- * included 1750 tenure-track faculty in Duke's 8 major schools that conduct research
- * estimated that 50% of the non-tenure-track faculty (total: 1648) conduct research
- * estimated that 25% of the School of Medicine and School of Nursing staff (total: 11,091) are involved in research
- * estimated that 5% of the staff on the remainder of campus (total: 8,280) are involved in research

Postdoctoral associates and graduate students are excluded in these estimates.

Duke's past submissions excluded faculty in the Schools of Medicine and Nursing and did not include staff.

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

Number of the institution's faculty and/or staff engaged in sustainability research:

284

Total number of the institution's faculty and/or staff engaged in research:

3,190

Number of academic departments (or the equivalent) that include at least one faculty or staff member that conducts sustainability research:

41

The total number of academic departments (or the equivalent) that conduct research:

77

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

[AC-9 Research 2013-2014 Faculty & Staff_1.xlsx](#)

Names and department affiliations of faculty and staff engaged in sustainability research:

See attached.

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

To update our inventory of faculty and staff who engage in sustainability research, we used the following process:

We began with Duke's October 2013 STARS submission. In that submission, we identified faculty who conduct sustainability research using multiple methods:

1. The Office of Research Support's Sponsored Projects Systems Database, searching by key word for sustainability related research. This search focused on grants funded for environmentally-focused sustainability research using keywords in the title or body of the text (climat*, sustainabl*, conservation, energy, water, environment*, ecosystem, renewable, fisheries, habitat, carbon dioxide, CO2, methane, greenhouse, waste, transportation, fuel -- with * as a character wild card).
2. Faculty listings in the Nicholas School of the Environment.
3. The Duke Campus Farm's website.
4. Faculty listings on departmental websites, including but not limited to Chemistry, Duke Global Health Institute, Economics, Law School, Sanford School of Public Policy, Sociology, Women's Studies

To update the inventory, we cleaned the previous database (removed duplicates and faculty we identified may not meet our sustainability criteria or who no longer work at Duke). Next we added to the inventory: We reviewed all research projects with awards received between July 1, 2012 and August 2014 (at

<https://ors.duke.edu/awards>

) and included the principal investigators of projects that, according to a trained reviewer, met environmental, economic, or social sustainability criteria.

We also added staff, including non-regular track faculty (who were excluded in the previous submission), laboratory managers, associates in research, etc., who conduct sustainability research from the departments identified in the inventory.

A brief description of notable accomplishments during the previous three years by faculty and/or staff engaged in sustainability research:

A Bass Connections Project is working to understand global health in the Peruvian Amazon

<http://research.duke.edu/video/25883>

Cathrine Hoyo is researching Environmental Influences on Health, Before Birth

<http://research.duke.edu/stories/duke-team-looks-environmental-influences-health-starting-birth>

Researchers Lauren Nichols and Jacqueline Mohan from the Nicholas School for the Environment are studying how today's forest trees will adjust to global climate changes

<http://research.duke.edu/stories/trees-global-warming>

Elizabeth A. Albright, from the Nicholas School for the Environment, is researching how policies and decisions are made in response to extreme climatic events. Further, she is interested in collaborative decision making processes, particularly in the realm of water resource management.

Erika Weinthal studies war's effects on water, and the use of the vital resource to build peace. One of Weinthal's current areas of research, conducted in cooperation with the United Nations Environmental Programme and the Environmental Law Institute, seeks to understand war's impact on water resources and to determine how water management can serve as a platform for political reconciliation, the fostering of regional cooperation, and the building of trust and confidence among previously warring parties.

The website URL where information about sustainability research is available:

<http://sustainability.duke.edu/academics/research/index.html>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution encourages and/or supports sustainability research through one or more of the following:

- 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. The program specifically aims to increase student sustainability research.
 - 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. The program specifically aims to increase faculty sustainability research.
 - Formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions.
 - Ongoing library support for sustainability research and learning in the form of research guides, materials selection policies and practices, curriculum development efforts, sustainability literacy promotion, and e-learning objects focused on sustainability.
-

"---" 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:

1. Bass Connections is a university-wide initiative, funded by a \$50 million grant, providing students (undergraduate and graduate) with greater exposure to inquiry across the disciplines, partnership with unlikely fellow thinkers, sustained mentorship in teams, and the chance to experience the intersections of the academy and the broader world. All Bass Connections participants will experience the complexity of global, societal problems in their real-world form, the value of integrating bodies of specialized knowledge, and the imperative of teamwork to begin finding solutions to the most pressing problems of the day. The interdisciplinary nature of these teams leads to strong ties to sustainability in project themes:

Brain & Society: Many of the core problems of our time – climate change, financial crises, addiction, and social inequality – arise from individuals and their choices. Brain research on cognition, emotions, expression, and decision-making will be translated in this theme to address collective challenges and increase understanding of what makes us human. Curricular and project elements will build connections between basic research in neuroscience (and related biological sciences) and socially challenging questions in medicine, the humanities, public policy, economics, ethics, and law, to understand issues such as physical and social responses to transformative events; the

workings of the brain in rhetoric and the arts; memory in legal testimony; and the role of decision processes in shaping our institutions and public policies. Project deliverables will be diverse, including, but not limited to: co-authored articles, artistic solutions, policy briefs, smartphone applications, curricula, and community outreach programs.

Global Health: Through Bass Connections in Global Health, students – undergraduate through doctoral – have the opportunity to participate in courses, experiential learning and faculty-led field projects to find solutions to global health challenges. Its education programs and activities help develop participants’ ability to work creatively and collectively to address health disparities worldwide, and cultivate strong mentoring, research and teaching skills of graduate and professional students, and postdoctoral scholars.

Energy: Bass Connections in Energy capitalizes on the University’s broader Energy Initiative, a university-wide interdisciplinary collaboration addressing today’s pressing energy challenges related to the economy, the environment, and security. Projects include research on energy communication, the intersection of energy & peace-building, energy efficiency in industry, distributed solar for Duke employees, behavior change and energy use, and the feasibility of an energy-producing digester on Duke’s campus. Several of these programs are part of the Duke Carbon Offsets Initiative, working to provide high-quality emissions offsets to help Duke become carbon-neutral.

Education & Human Development: Based on the recognition that successfully reaching adulthood is about more than test scores, the Bass Connections Education & Human Development (EHD) theme encompasses an interdisciplinary framework to engage students and faculty to develop the data, tools, and practices that better link how we raise our children—in schools, in families, and in communities—to positive life outcomes in an interconnected global society. We see “education” not just as formal K-12 schooling but also as learning via families and social channels, and “human development” as encompassing valued life outcomes across ages including health, social and familial connections, happiness, income, and employment.

2. Graduate student fellowships in the Duke Center for Sustainability & Commerce: Each spring the Duke Center for Sustainability & Commerce accepts applications, and conducts interviews, with exceptional Duke graduate students from across the campus who wish to obtain fellowship status with the Center. Under the direction of Director Jay Golden and affiliated faculty, fellows are tasked with sustainability research projects and take on leadership roles that include coordinating our student led Innovation Awards Program and Thought Leader Seminar Series. The Center places graduate-level multidisciplinary student teams, trained in sustainable systems and life cycle analytics, with organizations to help them address real-world sustainability issues.

<http://center.sustainability.duke.edu/education/student-fellowships>

3. The Global Health Doctoral Scholars: This program contributes 50% of the scholar's nine-month expenses for fees and stipends as well as office space. Initial funding lasts one year and can be renewed for up to three years upon student's successful application for continuation. A Global Health Scholar is a doctoral candidate with a substantive interest in global health from the perspective of the student's primary discipline. A global health perspective is interdisciplinary and is influenced by social, economic, and cultural contexts of health. The Scholar's dissertation would be based on a project undertaken in a low- or middle-income country.

URL:

<https://globalhealth.duke.edu/education-and-training/graduate/doctoral-scholars>

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

<http://interdisciplinary.duke.edu/bass-connections>

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:

Duke has several programs that encourage faculty research in sustainability and the incorporation of sustainability into additional courses across campus. These include:

1. Duke's Trillium Project is a faculty learning community dedicated to increasing the prevalence and quality of concepts of sustainability in academic courses at Duke. Each year, there is a campus workshop where "graduates" of prior Trillium Project workshops mentor other faculty in how to incorporate sustainability concepts into their new or revised syllabi across all disciplines and departments. To date, 66 faculty and staff have become Trillium Fellows.

<http://sites.duke.edu/trillium/>

2. The Bass Connections program described above, funded by a \$50 million grant, offers funding to allow faculty leaders of interdisciplinary research teams to support students on projects the faculty oversee but does not provide faculty funding itself. The majority of these teams are thematically tied to sustainability.

<http://today.duke.edu/2013/01/bassconnections>

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

Has the institution formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions?:

Yes

A brief description or the text of the institution's policy regarding interdisciplinary research:

Duke emphasizes the importance of interdisciplinary research in the 2006 Strategic Plan (

<http://stratplan.duke.edu/pdf/plan.pdf>

), which identifies interdisciplinarity as an enduring theme for the University. A fundamental planning mandate of the plan is to "further develop our capacity to support creative, entrepreneurial, interdisciplinary teaching and research among our faculty and students," which fed into the development of 2 strategic goals focused on interdisciplinarity. The first goal seeks to increase the capacity of Duke's faculty to develop and communicate disciplinary and interdisciplinary knowledge, which calls for the creation of a Faculty Enhancement

Initiative that "foster[s] shared searches between schools and institutes and centers" and "enable[s] accelerated and cluster hiring for school and university strategic priorities." A second goal is to strengthen the engagement of the University in real world issues by recommitting to flagship interdisciplinary programs. This high-level emphasis on interdisciplinary research is also present in the tenure and promotion process; internal and external candidates are required to submit "synops[es] of...intellectual interests, especially concerning interdisciplinary research" (located at the URL below under "Solicitation of Dossier Items from Candidate").

The website URL where information about the treatment of interdisciplinary research is available:

<http://www.facultyaffairs.provost.duke.edu/templates.html>

Does the institution provide ongoing library support for sustainability research and learning that meets the criteria for this credit?:

Yes

A brief description of the institution's library support for sustainability research and learning:

The Duke University Libraries' collections and librarians have supported interdisciplinary research in fields intersecting with sustainability for many years.

Duke Libraries will customize sustainability resources upon request for specific research or educational activities. For example:

<http://guides.library.duke.edu/architecture-sustainability>

The Libraries currently provide extensive research and instructional support for key fields, that form the foundation for interdisciplinary work in sustainability, including earth and ocean sciences, economics, engineering, environment and public policy. Subject area librarians in Cultural Anthropology, Sociology, Public Policy, Political Science, Engineering, Economics, and Environment are committed to building the existing collections to undergird study and research in sustainability and are open to requests for additional materials that would be of interest to faculty and students. The Libraries have collected and continue to actively collect relevant books, ebooks, journals, research databases, reports and datasets in fields ranging from environmental science to economics to documentary studies. The David M. Rubenstein Manuscript & Rare Book Library has a long history of collecting material that documents activities focusing on social advocacy and social change. Areas of strength include the civil rights movement, the Vietnam War, the labor movement, women's and children's rights, LGBT materials, and prisoner's rights and capital punishment. Finally, the Libraries maintain an extensive collection of feature films and documentaries on environmental issues and their impact on society. Many of Duke's journals and all of Duke's research databases are available online, and researchers may use the print and archival collections in all Duke University Libraries.

The Duke Libraries also hosted a 2009 exhibit about sustainability at Duke:

<http://library.duke.edu/exhibits/sustainability/index.html>

The website URL where information about the institution's library support for sustainability is available:

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has a formally adopted open access policy that ensures that versions of all future scholarly articles by faculty and staff and all future theses and dissertations are deposited in a designated open access repository.

The open access repository may be managed by the institution or the institution may participate in a consortium with a consortial and/or outsourced open access repository.

Submission Note:

The 10 major divisions referenced above are Duke's 10 schools:

Divinity School
Fuqua School of Business
Graduate School
Law School
Nicholas School of the Environment
Pratt School of Engineering
Sanford School of Public Policy
School of Medicine
School of Nursing
Trinity School of Arts & Sciences

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

Total number of institutional divisions (e.g. schools, colleges, departments) that produce research:

10

Number of divisions covered by a policy assuring open access to research:

10

A brief description of the open access policy, including the date adopted and repository(ies) used:

Duke's Open Access Policy for faculty scholarship applies to all divisions at Duke.

In March 2010, the Duke University Academic Council adopted an open access policy that applies to all Duke faculty members and, unless individual authors choose to opt-out, provides Duke a license to make scholarly articles authored by Duke faculty freely available
[Campus Sustainability Data Collector](#) | [AASHE](#)

via a Duke University Libraries repository known as DukeSpace. The text of the policy is found in Appendix P of the Faculty Handbook. If a publisher requests a formal letter waiving the faculty open access policy (i.e., asking to opt out), that can be accommodated.

In 2010, Duke joined the Compact for Open-Access Publishing Equity (COPE) and established a fund to help Duke researchers cover author fees and to remove the financial barriers to publishing in OA journals.

A copy of the open access policy:

The open access policy:

Policy on Open Access to Research

Adopted by Academic Council, 18 March 2010

http://provost.duke.edu/wp-content/uploads/FHB_App_P.pdf

The Faculty of Duke University is committed to disseminating the fruits of its research and scholarship as widely as possible. In addition to the public benefit of such dissemination, this policy is intended to serve faculty interests by promoting greater reach and impact for articles, simplifying authors' retention of distribution rights, and aiding preservation. In keeping with these commitments, the Faculty adopts the following policy.

Each Faculty member grants to Duke University permission to make available his or her scholarly articles and to reproduce and distribute those articles for the purpose of open dissemination. In legal terms, each Faculty member grants to Duke University a nonexclusive, irrevocable, royalty-free, worldwide license to exercise any and all rights under copyright relating to each of his or her scholarly articles, in any medium, and to authorize others to do so, provided that the articles are not sold. The Duke faculty author remains the copyright owner unless that author chooses to transfer the copyright to a publisher.

The policy will apply to all scholarly articles authored or co-authored while the person is a member of the Faculty except for any articles completed before the adoption of this policy and any articles for which the Faculty member entered into an incompatible licensing or assignment agreement before the adoption of this policy. The Provost or Provost's designate will waive application of the license for a particular article or delay access for a specified period of time upon written request by a Faculty member.

To assist the University in distributing the scholarly articles, each faculty member will make available, as of the date of publication or upon request, an electronic copy of the final author's version of the article at no charge to a designated representative of the Provost's Office in an appropriate format (such as PDF) specified by the Provost's Office. The Provost's Office will make the article available to the public in Duke's open-access repository. In cases where the Duke license has been waived or an embargo period has been mutually agreed, the article may be archived in a Duke repository without open access for the period of the embargo, or permanently in cases of waiver.

The Office of the Provost, in consultation with the Executive Committee of the Academic Council, will be responsible for interpreting this policy, resolving disputes concerning its interpretation and application, and recommending changes to the Faculty from time to time.

The Faculty calls upon the Library Council and Duke University Libraries to develop and monitor a plan for a service or mechanism that would render compliance with the policy as convenient for the faculty as possible.

The policy and service model will be reviewed after three years and a report presented to the Faculty.

For more information on the implementation of this policy, see

<http://library.duke.edu/openaccess/>

or contact Kevin Smith <

kevin.l.smith@duke.edu

>, Scholarly Communications Officer at Duke University Libraries.

The website URL where the open access repository is available:

<http://dukespace.lib.duke.edu/dspace/handle/10161/2841>

A brief description of how the institution's library(ies) support open access to research:

At Duke, one of the signature themes of our mission is putting knowledge in the service of society. This means making the fruits of Duke research available as broadly as possible — not just to researchers at places like Duke that have subscription access to scholarly literature via their libraries but to anyone who might benefit from the scholarship being done here. Duke University and Duke University Libraries support open access through a number of initiatives and encourages Duke scholars to work toward making their research openly accessible.

Duke University Libraries hosts a repository called DukeSpace. The DukeSpace repository hosts articles made available under the open access policy, as well as other scholarly resources from Duke. The Duke University Graduate School requires all students to submit their theses and dissertations electronically. All submissions are accessible in the DukeSpace repository under a Creative Commons license.

The Duke Medical Center Library & Archives also supports open access to health and medical information.

Open Access Journal Publishing: Duke University Libraries can help researchers create a peer-reviewed online journal or transition an existing one to an open access online version by providing a platform and technical support. We currently support several journals using the Open Journal Systems platform.

Open Access at Duke Law: In 1998, the Duke University School of Law became the first in the country to make all the articles published in its law journals — including back issues — freely accessible online. The Duke Law Scholarship Repository continues to provide free, full-text access to more than 3,000 scholarly articles written by Duke Law faculty or published in Duke Law journals.

The website URL where information about open access to the institution's research is available:

<http://library.duke.edu/research/openaccess>

Engagement

Campus Engagement

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.

In addition, this subcategory recognizes institutions that support faculty and staff engagement, 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
Student Educators Program
Student Orientation
Student Life
Outreach Materials and Publications
Outreach Campaign
Employee Educators Program
Employee Orientation
Staff Professional Development

Student Educators Program

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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 (paid and/or volunteer),
- Provides formal training to the educators in how to conduct outreach, and
- Offers faculty or staff and/or other 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.

This credit recognizes ongoing student educator programs that engage students on a regular basis. For example, student educators may be responsible for serving (i.e. directly targeting) a particular subset of students, such as those living in residence halls or enrolled in certain academic subdivisions. Thus, a group of students may be served by a program even if not all of these students avail themselves of the outreach and education offerings.

Sustainability outreach campaigns, sustainability events, and student clubs or groups are not eligible for this credit unless the criteria outlined above are met. These programs are covered by *EN 5: Outreach Campaign* and *EN 3: Student Life*.

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

Does the institution coordinate one or more ongoing student, peer-to-peer sustainability outreach and education programs that meet the criteria for this credit?:

Yes

Number of degree-seeking students enrolled at the institution:

14,850

Name of the student educators program (1st program):

Students for Sustainable Living

Number of students served (i.e. directly targeted) by the program (1st program):

14,850

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

Students for Sustainable Living (SSL) is a student employment program run by Sustainable Duke. SSL is a paid, 15-member student corps dedicated to greening Duke's campus culture through education and outreach with the ultimate goal of reducing the University's environmental footprint. A team of graduate and undergraduate students work approximately 3-5 hours per week throughout the academic year and receive between \$8 and 10 per hour.

Students learn about current sustainability efforts at Duke and select an area of campus sustainability that they are passionate about. Working in teams, students design and implement campus sustainability projects throughout the year. Past projects have included a staff sustainability education program, green dining awards, a showcase "green dorm room" and creating eye-catching signs with sustainability messages at key decision-making points across campus.

SSL creates change by researching, meeting with administrators and creatively outreaching to the Duke community. As a strong, collaborative community, SSL participants meet together weekly, along with the Sustainability Outreach Coordinator, to share updates and ideas.

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

Duke's Sustainability Outreach Coordinator distributes an application at the beginning of the Fall semester, reviews applications, and selects roughly 15 graduate and undergraduate students to participate in SSL for the academic year. The application asks students to discuss their interest in SSL, their perspective on campus environmental problems, and how SSL could impact sustainability at Duke.

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

Students learn about current sustainability efforts at Duke and select an area of campus sustainability that they are passionate about. Training includes presentations by the Sustainability Outreach Coordinator about present and past sustainability efforts across campus, as well as regular meetings with resource staff in areas relevant to students' projects. The Sustainability Outreach Coordinator also meets weekly with all students in the program and provides feedback and resources.

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

Duke's Sustainability Outreach Coordinator works with students individually and student groups on setting short and long-term goals, creating timelines, measuring project success, and assisting students with contacting other campus staff. The Coordinator meets weekly with SSL participants to share updates and ideas and is available to meet with students individually or in teams. Students are paid for their work throughout the year, which results in an approximate total cost of \$12,000 for the sustainability office. Additionally, resources are made available to students through the Green Grant Fund program to fund any aspects of their projects that have a monetary cost.

Name of the student educators program (2nd program):

East Campus Dorm Eco-Reps

Number of students served (i.e. directly targeted) by the program (2nd program):

1,721

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

Sustainable Duke's Dorm Eco-Reps are unpaid freshmen student leaders for sustainability in the 14 East Campus residence halls at Duke. They educate peers about sustainability and develop fun and engaging programming to lower the environmental footprint of the residence halls and their residents.

The Dorm Eco-Reps run the Green Dorm Room Certification program on East Campus. Other Eco-Rep projects from recent years have included displaying a sustainable “tip of the week” in each dorm, a sustainable fashion show, auditing the presence of dual-flush toilets, posting informative maps about the location of cardboard recycling dumpsters.

Dorm Eco-Reps volunteer approximately 1-3 hours per week of their time. As a strong, collaborative community, Dorm Eco-Reps meet together for one hour every other week to share updates and ideas.

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

Each fall, two student co-coordinators and the Sustainability Outreach Coordinator work together to select Dorm Eco-Reps after reviewing applications that ask for ideas regarding sustainability and potential projects for the dorms.

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

The Dorm Eco-Reps team receives a series of presentations each fall about past, present, and ongoing sustainability efforts across campus. As a strong, collaborative community, Dorm Eco-Reps meet together for one hour every other week to share updates and ideas. Two student leaders and the Sustainability Outreach Coordinator provide feedback and resources to the group.

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

Duke’s Sustainability Outreach Coordinator oversees two paid Students for Sustainable Living students who work closely with and coordinate the Eco-Reps. The Coordinator meets weekly with the two SSL students to share updates and ideas. The SSL students meet for one hour every other week with the Dorm Eco-Reps. Resources are made available to students through the Green Grant Fund program to fund any aspects of their projects that have a monetary cost.

Name of the student educators program (3rd program):

Campus Sustainability Fellows

Number of students served (i.e. directly targeted) by the program (3rd program):

14,850

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

The Campus Sustainability Fellows (CSF) program is a paid student corps that assists individual Duke schools in assessing and reducing their environmental impact while connecting to broader campus sustainability initiatives.

The CSF program is open to upper-class undergraduate and masters/graduate students. Fellows work an average of 8-10 hours a week at \$11.50/hr and are assigned to a particular school at Duke such as the Fuqua School of Business. With guidance from Sustainable Duke, fellows identify, collaborate with and provide resources to staff clients within each school who are interested and engaged in sustainability and workplace greening. Fellows work to assess schools' environmental impact and identify opportunities for greenhouse gas (GHG) emission reductions. Fellows report school assessments and progress to the Campus Sustainability Committee to better connect their efforts with campus sustainability priorities.

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

Each fall, applications for the program are reviewed by the Director of Sustainability. Applications ask for students to discuss their interest in sustainability and the fellowship program, their experiences in project management and sustainability, their perspective on campus environmental problems, and how they could impact sustainability at Duke

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

Campus Sustainability Fellows meet regularly with the Environmental Sustainability Director, who provides support and resources for their projects.

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

The Environmental Sustainability Director works with students to set goals and implement their projects. Students are paid hourly for their work. Additionally, resources are made available to students through the Green Grant Fund program to fund any aspects of their projects that have a monetary cost.

Name(s) of the student educator program(s) (all other programs):

Number of students served (i.e. directly targeted) by all other student educator programs:

A brief description of the program(s), 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 financial or other support the institution provides to the program (all other programs):

Total number of hours student educators are engaged in peer-to-peer sustainability outreach and education activities annually:

3,480

The website URL for the peer-to-peer student outreach and education program(s):

http://sustainability.duke.edu/campus_groups/index.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution includes sustainability prominently in its student orientation activities and programming. Sustainability activities and programming are intended to educate about the principles and practices of sustainability. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

Because orientation activities vary from one institution to another, prominent inclusion of sustainability may not take the same form on each campus. Prominent inclusion of sustainability may also take different forms for different types of students (e.g. undergraduate students, transfer students, graduate students). When reporting for this credit, each institution will determine what prominent inclusion of sustainability means given its particular context. (See the Credit Example in the STARS Technical Manual.)

As this credit is intended to recognize programming and student learning about sustainability, incorporating sustainability strategies into event planning (e.g. making recycling bins accessible or not serving bottled water) is not, in and of itself, sufficient for this credit. Such strategies may count if they are highlighted and are part of the educational offerings. For example, serving local food would not, in and of itself, be sufficient for this credit; however, serving local food and providing information about sustainable food systems during meals could contribute to earning this credit.

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

The percentage of entering students that are provided an opportunity to participate in orientation activities and programming that prominently include sustainability:

100

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

Duke's Office of Sustainability incorporates information on how to move in and furnish your dorm room sustainably in orientation materials distributed to incoming freshmen. A Green Dorm Room is also displayed each summer for all campus tours of prospective students. Programs including Sustainable Duke, Dorm Eco-Reps, Duke Campus Farm, and the Nicholas School of the Environment engage new students at resource fairs during orientation. Reusable water bottles are distributed to all incoming first year students and students are encouraged to fill their bottles at water bottle filling stations around campus. Duke's office of sustainability and Duke Sanitation and Recycling Services collaborate to throw a zero-waste welcome picnic, in which all materials distributed are either recyclable or compostable. At the picnic, volunteers educate students about the importance of waste reduction and Duke's efforts to compost dining waste on campus.

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

http://sustainability.duke.edu/news_events/items/2014/2014_06_04shortList.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has co-curricular sustainability programs and initiatives. The programs and initiatives fall into one or more of the following categories:

- Active student groups focused on sustainability
- Gardens, farms, community supported agriculture (CSA) or fishery programs, and urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems
- Sustainable enterprises that include sustainability as part of their mission statements or stated purposes (e.g. cafés through which students gain sustainable business skills)
- Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills
- Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience
- Cultural arts events, installations or performances related to sustainability that have students as the intended audience
- Wilderness or outdoors programs (e.g. that organize hiking, backpacking, kayaking, or other outings for students and follow Leave No Trace principles)
- Sustainability-related themes chosen for themed semesters, years, or first-year experiences (e.g. choosing a sustainability-related book for common reading)
- Programs through which students can learn sustainable life skills (e.g. a series of sustainable living workshops, a model room in a residence hall that is open to students during regular visitation hours and demonstrates sustainable living principles, or sustainability-themed housing where residents and visitors learn about sustainability together)
- Sustainability-focused student employment opportunities offered by the institution
- Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions
- Other co-curricular sustainability programs and initiatives

Multiple programs and initiatives may be reported for each category and each category may include institution-governed and/or student-governed programs.

Submission Note:

<http://www.dukestartupchallenge.org/>

<http://today.duke.edu/2013/09/%E2%80%98fort-duke%E2%80%99-sets-world-record-reused-cardboard-boxes#video>

<http://studentaffairs.duke.edu/new-students/preorientation-programs>

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

Does the institution have one or more co-curricular sustainability programs and initiatives that fall into the following categories?:

	Yes or No
Active student groups focused on sustainability	Yes
Gardens, farms, community supported agriculture (CSA) or fishery programs, or urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems	Yes
Student-run enterprises that include sustainability as part of their mission statements or stated purposes	Yes
Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills	No
Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience	Yes
Cultural arts events, installations or performances related to sustainability that have students as the intended audience	Yes
Wilderness or outdoors programs that follow Leave No Trace principles	Yes
Sustainability-related themes chosen for themed semesters, years, or first-year experiences	Yes

Programs through which students can learn sustainable life skills	Yes
Sustainability-focused student employment opportunities offered by the institution	Yes
Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions	No
Other co-curricular sustainability programs and initiatives	Yes

The name and a brief description of each student group focused on sustainability:

There are two main student groups at Duke University actively involved in campus sustainability. Environmental Alliance (EA) is an undergraduate student group committed to promoting the implementation of sustainable practices at Duke University (

<http://sites.duke.edu/dukeea/>

). Through organization, advocacy, and outreach, this organization strives to make Duke a model campus for environmental stewardship. EA's mission is to support and defend the environmental values in the campus community and beyond. This group's goal is to minimize the university's ecological footprint on the planet through the implementation of sustainable practices on Duke's campus and in Durham.

The Duke University Greening Initiative (DUGI) is a primarily graduate student organization (

<http://web.duke.edu/greening/mission.html>

). While the organization is project-based, it focuses on projects that will further the institutionalization of sustainability at Duke.

In addition to EA and DUGI, there are a number of other student groups at Duke focused on sustainability, including the Duke Food Project, Food for Thought, WOODS, REMEDY, Business and Environment Club, Duke MBA Environment Club, Duke Energy Club, Nicholas School Energy Club, Green Wave, Farmhand, Duke Environmental Law and Policy Forum, Divest Duke, Duke Environmental Law Society, and the Duke chapter of Net Impact. All groups listed are student-governed.

The website URL where information about student groups is available:

http://sustainability.duke.edu/campus_groups/index.html

A brief description of gardens, farms, community supported agriculture (CSA) or fishery programs, and urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems:

The Duke Community Garden is a student run-organization that seeks to improve campus sustainability by providing organic food to campus eateries and providing students, staff, and faculty with educational and recreational opportunities related to gardening. The garden provides its members with a place to relax and enjoy nature, as well as an opportunity to enjoy fresh produce. The plants in the garden are regularly maintained with crops optimal for the season and climate. Any student or staff member is able to participate, and the garden will

provide instruction in optimizing and tending crops. The community garden is student-governed.

In addition to the community garden, in 2010 Duke also started the Duke Campus Farm, a 1-acre vegetable farm located close to campus in Duke Forest. The Duke Campus Farm not only produces vegetables for the dining halls on campus, but it also serves as an educational setting to teach students and community members about farming and sustainable agriculture. Every semester classes, workshops, and tours are hosted at the farm, and every year the farm's network of professors, researchers, and students grows. Two full time staff members manage the farm with the help of student interns.

The website URL where information about the organic agriculture and/or sustainable food systems projects and initiatives is available:

<http://sites.duke.edu/farm/>

A brief description of student-run enterprises that include sustainability as part of their mission statements or stated purposes:

There are several student enterprises at Duke that achieve the objective of education in sustainable business skills:

DukeFish

DukeFish is a student organization whose mission is to promote sustainable fishing and consumer practices by reaching out to our peers, community members, and local industry. In 2009, DukeFish organized a community-supported fisheries (CSF) pilot project called Walking Fish. Walking Fish is a community supported fishery (CSF) that links fishermen on the coast of North Carolina to consumers in the Triangle. The CSF involves pre-payment by consumers for a 'share' of fresh, locally harvested seafood (i.e., a set amount of seafood generally picked up by the consumer on a weekly or bi-weekly basis). Just as CSAs can encourage sustainable and profitable farming practices, CSFs have the potential to do the same for fishing.

<http://www.dukefish.org/>

<http://walking-fish.org/>

Duke Start Up Challenge

The Duke Start-Up Challenge, founded in 1999, is designed to help Duke's entrepreneurship community flourish, with a year long entrepreneurship competition followed by an accelerator program. The Challenge includes two sustainability related tracks, "Clean Energy" and "Social Enterprises".

<http://www.dukestartupchallenge.org/>

Farmhand

Farmhand began in fall 2006 as a volunteer effort geared toward building awareness of sustainable agriculture throughout the Nicholas School community by providing physical labor for local small-scale farmers that produce healthy food for the Durham/Triangle community through sustainable agriculture. In addition to the organization of an annual Fall Festival and Spring Sustainable Dinner, for

which the group collects revenue, students also maintain a program selling local food boxes, providing local farm food to the Duke community.

<https://wiki.duke.edu/display/nickipedia/Farmhand>

The website URL where information about the student-run enterprise(s) is available:

<http://www.dukefish.org/>

A brief description of the sustainable investment or finance initiatives:

The website URL where information about the sustainable investment or finance initiatives is available:

A brief description of conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience:

Duke University holds many major events related to sustainability each year. Examples of major events include: Summoned Toward Wholeness Conference (Duke Divinity School), Shared Tables: A Triangle Symposium on Global and Local Food Studies; and the annual presentation of the Duke LEAF Award for Lifetime Environmental Achievement in the Fine Arts. Duke typically hosts more than 30 sustainability-focused events throughout Earth Month, including speakers, workshops, tours, and an Earth Day Festival led by the Nicholas School of the Environment.

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

http://sustainability.duke.edu/news_events/index.php

A brief description of cultural arts events, installations or performances related to sustainability that have students as the intended audience:

The 2013 Duke Arts Festival featured a sustainability theme. As part of the festival in September 2013, the Duke community constructed "Fort Duke," a structure comprised 3,500 used cardboard boxes that were collected when students moved in on campus. It stood 16 feet tall and occupied a 70-by-70 square foot area on the Chapel Quad. At its core was a tower surrounding the James B. Duke statue. The fort was designed by Todd Berreth, a research programmer in the Department of Art, Art History and Visual Studies. About 300 people participated in the construction of the building over the course of 10 hours. The structure was dismantled the same day and the boxes were then recycled. The event kicked off this semester's Duke Arts Festival, which had a theme of using recycled materials and promoting messages of environmental stewardship. The organizers of Fort Duke were the Duke Arts Festival, Sustainable Duke, and Duke Sanitation and Recycling Services.

The website URL where information about the cultural arts event(s) is available:

<http://arts.duke.edu/artsjournal/2013-duke-arts-festival-focus-sustainability>

A brief description of wilderness or outdoors programs for students that follow Leave No Trace principles:

Project WILD began as Duke's first pre-orientation program in 1974 with the help of the Carolina Outward Bound School. Since then, the program has grown to include a spring break trip, a house course, a low ropes course, and a fall trip for Durham area high school students. Over the past 30 years, thousands of Duke students have started their college experience with Project WILD, and through the low ropes course and Step into the WILD, the Durham community benefits from wilderness experiential education as well.

Duke Outdoor Adventures (

<http://recreation.duke.edu/recreation/outdoor-adventures/>

) provides regular guided outdoor trips to students, staff, and faculty. Trip activities include camping, hiking, backpacking, paddling, and rock climbing. Leave No Trace principles are incorporated into the outdoor education program during these trips.

A part of Duke Outdoor Adventures is the Duke Outpost. The Duke Outpost (

<http://recreation.duke.edu/recreation/outdoor-adventures/trips-and-clinics/the-outpost-gear-rentals/>

tals/

) loans camping gear and sports equipment to Duke students, faculty and staff. The Outpost also provides a gathering space for student group and individuals seeking outdoor recreation opportunities and has many resources about activities, parks, and sites in and around North Carolina.

The website URL where information about the wilderness or outdoors program(s) is available:

<http://recreation.duke.edu/recreation/outdoor-adventures/>

A brief description of sustainability-related themes chosen for themed semesters, years, or first-year experiences:

Duke's Focus Program for first-year students provides clusters of courses designed around an interdisciplinary theme. Students explore a range of issues and ideas from different viewpoints across the humanities, sciences, and social sciences; Focus faculty from diverse academic departments are leading researchers in their fields. The Focus program has had several sustainability-related clusters over the past few years, among these clusters have been "Evolution and Humankind," "Engineering Frontiers," and "Ethics, Leadership, and Global Citizenship," all of which included sustainability classes and components.

In addition, PBuild and PWild are pre-orientation programs that feature a sustainability theme. PBuild students spend a day working on small construction projects at the Duke Campus Farm while PWild is an outdoor education program.

The website URL where information about the theme is available:

<http://focus.duke.edu/>

A brief description of program(s) through which students can learn sustainable life skills:

Campus Sustainability Data Collector | AASHE

During the summers at Duke, prospective students on campus tours view a model Green Dorm Room that displays how live sustainably at Duke and includes a check-list of sustainable items to bring to campus (i.e. bicycle and helmet, reusable grocery bag). The Green Dorm Room was created by student employees in the Students for Sustainable Living program.

Funded by a \$500 grant from the Green Grant Fund, the room is furnished with approximately 20 sustainable items purchased from Whole Foods Market, Target and

[Etsy.com](https://www.etsy.com)

, a website that sells sustainable goods made by independent artisans around the world. According to results from Duke's Green Devil Challenge - a monthly effort to promote sustainable behavior at Duke - students at the university average about one metric ton of carbon dioxide emissions annually from dorm room energy and water usage.

Biodegradable toiletries and cleaning products, and a power strip that automatically turns off electronics are some items featured in the room. A sign accompanies each product and explains what the item is and how it makes the room more sustainable.

Due to a shortage of rooms for residential students, the Green Dorm room is not currently available during the academic year. However, in true sustainable fashion, all items are reused each summer as a highlight of Duke campus tours.

What's in the room?

- * Organic sheets & pillows
- * "Smart" power strip that turns off electronics
- * Lamp made with recycled bottles
- * Area rug made of recycled plastic
- * Clothes drying rack
- * Aluminum water bottle
- * Biodegradable laundry detergent
- * Reusable shopping bag
- * Compact florescent light bulbs
- * Bike helmet
- * Chemical-free cosmetics
- * Biodegradable cleaning supplies
- * Wall art printed on recycled paper with soy inks

The website URL where information about the sustainable life skills program(s) is available:

http://sustainability.duke.edu/campus_initiatives/buildings/GrnDrmRm.html

A brief description of sustainability-focused student employment opportunities:

Two student internship programs are available with Sustainable Duke. The Students for Sustainable Living program (

http://sustainability.duke.edu/campus_groups/ssl.html

) provides students interested in sustainability an opportunity to work on campus-wide projects relating to outreach, green dining, sustainable transportation, and other key areas of campus sustainability. Students work 3-5 hours per week and are paid hourly.

The Campus Sustainability Fellows program (

http://sustainability.duke.edu/campus_groups/fellows.html

) provides students interested in careers in sustainability the opportunity to serve as consultants for various schools across Duke, to help client staff members in their schools improve their sustainability and decrease their environmental footprint. Fellows work 8-10 hours per week and are paid hourly.

The website URL where information about the student employment opportunities is available:

http://sustainability.duke.edu/campus_groups/index.html

A brief description of graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions:

The website URL where information about the graduation pledge program is available:

A brief description of other co-curricular sustainability programs and initiatives:

Sustainable Duke maintains a list of ideas for on-campus, client-based student and group projects in areas like energy, water, recycling, transportation and carbon offsets. The list is updated prior to each semester and interested students are connected with the sustainability resource person who proposed the project.

A few current project examples include:

- Create baseline metrics for Duke's irrigation system and standards for irrigation in new construction;
- Develop "Shut the Sash" fume hood behavioral campaign in labs at Duke;
- Develop an urban forestry carbon offsets pilot project; and
- Work with Parking & Transportation Services staff to collect bicycling shortcut data for a campus bike map.

The Duke University campus also offers many living laboratories for diverse co-curricular educational experiences in sustainability including:

- Home Depot Smart Home – Students living in the home use and develop "smart technology", courses are offered on sustainable living topics such as "Smart Home Technology Development" and "Sustainable Structures"
- Duke Campus Farm – Courses in law, marketing and food issues have used the farm as a research client, students can propose projects in their particular areas of interest
- Duke Forest – The Forest hosts up to 50 research projects at a time, with topics like the effects of elevated carbon dioxide (CO₂) levels on forest ecosystems
- Duke Lemur Center – Research by faculty and students in areas like cognition, behavior, and communication furthers Lemur conservation
- SWAMP – Outdoor classroom and field laboratory for wetland restoration
- Duke Marine Lab – Students and faculty at the Marine Lab are engaged in research, education, and service to understand marine systems, including the human component, and to develop approaches for marine conservation and restoration

The website URL where information about other co-curricular sustainability programs and initiatives is available:

<http://sustainability.duke.edu/academics/CSCProjects.html>

Outreach Materials and Publications

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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
- Social media platforms (e.g. Facebook, Twitter, interactive blogs) that focus specifically on campus sustainability
- 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 and/or landscaping strategies employed
- A sustainability walking map or tour
- A guide for commuters about how to use alternative methods of transportation
- Navigation and educational tools for bicyclists and pedestrians (e.g. covering routes, inter-modal connections, policies, services, and safety)
- 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

A single outreach material or publication that serves multiple purposes may be counted more than once. For example, a sustainability website that includes tools for bicyclists and pedestrians may be counted in both categories.

Submission Note:

Sustainable Duke YouTube -

<https://www.youtube.com/playlist?list=PL3A3850338AF933D5>

Sustainability signage in buildings -

http://sustainability.duke.edu/campus_initiatives/buildings/Signs.html

Sustainable grounds and landscaping strategies -

<http://www.fmd.duke.edu/grounds/Sustainability.php>

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

Does the institution produce the following outreach materials and/or publications that foster sustainability learning and knowledge? :

	Yes or No
A central sustainability website that consolidates information about the institution’s sustainability efforts	Yes
A sustainability newsletter	Yes
Social media platforms that focus specifically on campus sustainability	Yes
A vehicle to publish and disseminate student research on sustainability	Yes
Building signage that highlights green building features	Yes
Food service area signage and/or brochures that include information about sustainable food systems	Yes
Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed	No
A sustainability walking map or tour	Yes
A guide for commuters about how to use alternative methods of transportation	Yes
Navigation and educational tools for bicyclists and pedestrians	Yes
A guide for green living and incorporating sustainability into the residential experience	Yes
Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat	Yes
Other sustainability publications or outreach materials not covered above	Yes

A brief description of the central sustainability website:

Duke's Office of Sustainability maintains and regularly updates a public website that consolidates all information regarding sustainability efforts on campus.

The website URL for the central sustainability website:

<http://www.sustainability.duke.edu/>

A brief description of the sustainability newsletter:

Duke's Office of Sustainability publishes a twice monthly newsletter with updates regarding sustainability efforts and events on campus and in the Durham community. This newsletter is sent to an email listserv that reaches over seven thousand Duke students, staff members, and faculty.

The website URL for the sustainability newsletter:

http://sustainability.duke.edu/news_events/index.php

A brief description of the social media platforms that focus specifically on campus sustainability:

Duke's Office of Sustainability manages a Facebook page and YouTube account focused on campus sustainability news and sustainable living tips. The Facebook page is updated several times a week and currently has 1,277 likes. The Sustainable Duke YouTube offers 44 videos and has over 1,000 views. Community members also tag @sustainableduke on Twitter.

The website URL of the primary social media platform that focuses on sustainability:

<https://www.facebook.com/pages/Sustainable-Duke/108474052525523>

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

Sustainable Duke tracks and shares research from Nicholas School Masters Projects related to campus sustainability on the sustainability website. The list of projects is updated on the website each year.

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

<http://sustainability.duke.edu/academics/livinglab.html>

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

Buildings on campus with LEED certification are marked. Additionally, small signs throughout most buildings on campus encourage use of sustainable features such as water-filling stations, and stairs instead of elevators.

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

http://sustainability.duke.edu/campus_initiatives/buildings/LEEDBuildings.html

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

Signs in the two main campus eateries highlight the sustainability efforts of Duke Dining and Bon Appétit, the company that services these dining halls, including use of local ingredients and efforts to reduce waste. Signs above waste stations in the campus eateries remind students to leave all food waste on their trays so that the kitchen staff can compost it. Many other campus eateries at Duke incorporate sustainable efforts and advertize these on menus and through other signage in the eatery.

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

<http://studentaffairs.duke.edu/dining/sustainable-dining>

A brief description of signage on the grounds about sustainable groundskeeping and/or landscaping strategies:

Sustainable groundskeeping and landscaping strategies are highlighted in signage in several ways across campus. For instance, in the Sarah P. Duke Gardens, native North Carolina plants are highlighted with educational signage. Additionally, a recent effort to widen and restore a stream that runs through campus included signage explaining the focus of the project on restoring the natural stream habitat.

The website URL for signage on the grounds about sustainable groundskeeping and/or landscaping strategies:

<https://gardens.duke.edu/about/blomquist-garden>

A brief description of the sustainability walking map or tour:

The Duke Campus Tree Tour was created by Duke Facilities Management Department (FMD) Grounds Maintenance Office to highlight a few of the trees that inhabit the Duke University and Duke Medical Center campuses. An online version of the tour is located at the URL below, and paper copies are available in the Admissions Building. Presently an additional sustainability pocket map of campus is under design, and additional sustainability-related locations are being added to Duke's online campus map in a comprehensive sustainability layer.

The website URL of the sustainability walking map or tour:

http://sustainability.duke.edu/news_events/items/2009_04_28TreeTour.html

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

Duke's Parking & Transportation Services maintains a web guide to alternative transportation options including information about Duke buses and vans, carpool, vanpool, bicycling, carshare, and walking.

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

<http://parking.duke.edu/commuting/index.php>

A brief description of the navigation and educational tools for bicyclists and pedestrians:

The Parking & Transportation Services website offers navigational and safety resources for bicyclists and pedestrians, including a reminder to wear a helmet and links to more information on NC laws and best practices for bikers. Bike and hike navigational maps are provided as well.

The website URL for navigation and educational tools for bicyclists and pedestrians:

<http://parking.duke.edu/commuting/bicycling/index.php>

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

First-year students receive information each year about how to live green on campus before they even arrive. All first-year students have receive a link to the Green Book, a guide to eco-friendly living at Duke. Students discover information about dining, recycling, alternative transportation, getting involved in sustainability, and other aspects of green living. The Green Book also provides information that is useful to students before they arrive on campus, such as a shopping list for a green dorm room and ways to get around Duke and Durham without bringing a car to campus. A second version of the Green Book also highlights resources specific to graduate and professional students.

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

<http://sustainability.duke.edu/action/greenbook/index.html>

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:

Environmental Alliance, the primary undergraduate environmental group currently publishes a twice monthly environmental column in the student newspaper, The Chronicle.

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://www.dukechronicle.com/articles/2015/02/13/no-more-burgers#.VOc-aC7MjEa>

A brief description of another sustainability publication or outreach material not covered above (1st material):

Sustainable Duke and Students for Sustainable Living have placed signs around dormitories and academic buildings to remind students, staff, and faculty to observe particular environmentally-friendly practices ranging from reducing their shower time to taking the stairs instead of the elevator. The signs themselves are sustainable, printed on recyclable plastic with eco-solvent ink. Funded by Sustainable Duke and Housing, Dining & Residence Life, these signs have been placed in all dorms on campus and the majority of academic buildings.

The website URL for this material (1st material):

http://sustainability.duke.edu/campus_initiatives/buildings/Signs.html

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

Yes

A brief description of this material (2nd material):

Working@Duke is the primary print publication for Duke University faculty and staff. Each month, a page of this newsletter is dedicated to sustainability news. Stories from June 2011 to August 2014 are compiled at the link below.

The website URL for this material (2nd material):

http://issuu.com/workingatduke/docs/sustduke_jun2011-aug2014/1

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

Yes

A brief description of this material (3rd material):

Dukenvironment Magazine is published by the Nicholas School of the Environment twice per year.

The website URL for this material (3rd material):

<http://nicholas.duke.edu/dukenvironment>

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

Yes

A brief description of this material (4th material):

The ENO magazine was created by a group of students at faculty at the Nicholas School of the Environment at Duke in 2011 in order "to create and sustain a literary journal that serves the Nicholas School community by publishing works of creative non-fiction, fiction, poetry, mixed-genre writing, photography, and visual art, encouraging submissions from Nicholas school students, staff, and faculty, alumni, and other relations, and creating a sustainably printed magazine that is distributing widely within the Nicholas School and Duke University."

The website URL for this material (4th material):

<http://sites.nicholas.duke.edu/eno/>

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

Yes

A brief description of this material (5th material):

The Nicholas Institute at Duke University has an online collection of publications written by Nicholas Institute staff and Duke professors and researchers.

"The Nicholas Institute for Environmental Policy Solutions at Duke University improves environmental policymaking worldwide through objective, fact-based research in the areas of climate change, the economics of limiting carbon pollution, emerging environmental markets, oceans governance and coastal management and freshwater concerns at home and abroad. The Nicholas Institute is part of Duke University and its wider community of world-class scholars."

The website URL for this material (5th material):

<http://nicholasinstitute.duke.edu/publications>

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

Yes

A brief description of this material (6th material):

Sustainable Duke produces an annual progress report to Duke's Sustainability Strategic Plan, including updates on Duke's carbon neutrality goal and many other areas of campus sustainability. The report is primarily distributed electronically, with a few hard copies printed as necessary.

The website URL for this material (6th material):

<http://sustainability.duke.edu/about/reports/index.html>

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

Yes

A brief description of this material (7th material):

The Duke Campus Farm publishes an annual report.

The website URL for this material (7th material):

<http://sites.duke.edu/farm/about/annual-reports/>

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

A brief description of this material (8th material):

The website URL for this material (8th material):

Outreach Campaign

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution holds at least one sustainability-related outreach campaign directed at students that 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.

Part 2

Institution holds at least one sustainability-related outreach campaign directed at employees that yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution or an employee organization.

The campaign(s) reported for this credit could take the form of a competition (e.g. a residence hall conservation competition), a rating or certification program (e.g. a green labs or green office program), and/or a collective challenge (e.g. a campus-wide drive to achieve a specific sustainability target). A single campus-wide campaign may meet the criteria for both parts of this credit if educating students is a prime feature of the campaign and it is directed at both students and employees.

To measure if a campaign yields measurable, positive results, institutions should compare pre-campaign performance to performance during or after the campaign. The following impacts are not sufficient for this credit:

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

Submission Note:

Unpark Yourself Challenge -
<http://sustainability.duke.edu/action/unpark/index.php>

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

Has the institution held at least one sustainability-related outreach campaign directed at students within the previous three years that has yielded measurable, positive results in advancing sustainability?:

Yes

Has the institution held at least one sustainability-related outreach campaign directed at employees within the previous three years that has yielded measurable, positive results in advancing sustainability?:

Yes

The name of the campaign (1st campaign):

Eco-Olympics

A brief description of the campaign (1st campaign):

Eco-Olympics is a waste, water, and energy reduction competition held every fall between Duke first year dorms. The competition is run by the undergraduate organization Environmental Alliance. During the competition students from each dorm are encouraged to participate in a series of educational events in addition to lowering their waste production and energy usage.

The dorm with the highest participation and resource use reduction rates wins the competition. Individuals who demonstrate exceptional enthusiasm for and dedication to sustainability during the program are also eligible for prizes.

A brief description of the measured positive impact(s) of the campaign (1st campaign):

During Eco-Olympics, freshmen learn about energy conservation, recycling, and worldwide environmental issues. The goal is to educate and engage students for the rest of their time at Duke and after graduation. Most Duke upperclassmen can recall the competition and at least one environmentally friendly practice that they learned while it was taking place. The first year dorms have a strong sense of community, which enhances the spirit of competition. Holding the competition on East Campus targets students early in their time at Duke, allowing them to later build on what they've learned. Energy reductions during the competition have been as high as 54% for the winning dorm, but the average is usually between 11% and 15%. These reductions are calculated from energy readings provided weekly by Facilities Management.

The website URL where information about the campaign is available (1st campaign):

<http://sites.duke.edu/dukeea/eco-olympics/>

The name of the campaign (2nd campaign):

Green Devil Smackdown

A brief description of the campaign (2nd campaign):

The Green Devil Smackdown competition focused on a variety of areas of sustainability and was held for three consecutive years from 2012 to 2014. Students, faculty and staff competed in team of between 10 and 100 members. Members of each team earned points for taking different sustainable actions and accepting weekly challenges during the competition. Groups earned points for successful participation in sustainability challenges including individuals challenges, team actions, and quizzes.

A brief description of the measured positive impact(s) of the campaign (2nd campaign):

Over the three years of the Green Devil Smackdown, 3,478 students, faculty and staff participated in the competition to adopt environmentally-friendly behaviors. This included 150 teams that competed over the three year period and 6,536 individual challenges accepted.

The website URL where information about the campaign is available (2nd campaign):

<http://sustainability.duke.edu/action/smackdown/index.php>

A brief description of other outreach campaigns, including measured positive impacts:

This year Sustainable Duke is hosting the "Unpark Yourself Challenge" for graduate students and employees, encouraging use of sustainable transportation options. Participants will form teams and complete various challenges aimed at reducing their transportation carbon footprints. Participants will take a transportation carbon footprint calculator before and after the challenge to measure the impact of the competition, as well as track their daily commute during the last three weeks of the competition.

Employee Educators Program

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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 recognizes ongoing programs that engage employees on a regular basis. For example, employee educators may represent or be responsible for engaging workers in certain departments or buildings. Thus, a group of employees may be served (i.e. directly targeted) by a program even if not all of these employees avail themselves of the outreach and education offerings.

Training and/or professional development opportunities in sustainability for staff are excluded from this credit. These activities are covered in *EN 8: Staff Professional Development*.

Submission Note:

Green Classroom Certification -

<http://sustainability.duke.edu/action/certifications/classroom/index.php>

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

Does the institution administer or oversee an ongoing faculty/staff peer-to-peer sustainability outreach and education program that meets the criteria for this credit?:

Yes

Total number of employees:

30,472

Name of the employee educators program (1st program) :

Duke Green Workplace Certification

Number of employees served by the program (1st program):

1,508

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

Duke Green Workplace Certification is a program created by Sustainable Duke to help staff reduce the environmental footprint of their workplace. The program helps to train and foster staff sustainability leaders within a department and provides resources to guide the process of greening their workplace. Green Workplace Certification is awarded based on completion of a checklist of actions. Only staff who have attended the Leading for Environmental Sustainability Workshop are eligible to complete the checklist on behalf of their department. The checklist is accessible online to these staff members. While some offices may have only a few staff members working closely on the checklist, all staff in the office should be familiarized with the checklist and personal actions they can take that contribute to office sustainability. For this reason, the certification is recommended for groups of 5 to 20 staff. Of the 58 items on the checklist, 40 items must be completed to receive certification. Certified offices receive a sticker for display in their workplace, as well as recognition on Sustainable Duke's website, on Duke Today, and in the sustainability e-newsletter.

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

Staff from across the university and health system who are interested in sustainability attend the Leading for Environmental Sustainability Workshop (more info in question below). These staff leaders are then tasked with sharing information back to their departments through e-mails, newsletter, bulletin boards, staff meetings and more. Sustainable Duke provides resources like PowerPoint presentations to help staff share this information with their coworkers and engaged them in completing the Duke Green Workplace Certification.

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

Duke's Sustainability Outreach Coordinator hosts training and provides presentations to individual departments on campus that are working to become more sustainable. The Sustainability Outreach Coordinator also communicates with leaders of green teams regularly via e-mail and telephone in order to provide resources, advice, and assistance with green team projects. Additionally, Sustainable Duke manages the Duke Green Workplace Certification process, including media promotions of newly certified offices. Finally, Sustainable Duke supports departments financially in their workplace greening projects through funding from the Green Grant Fund, provides a sticker to each certified workplace, provides refreshments at trainings, and hosts sustainability leaders at an annual awards luncheon.

The website URL where information about the program is available (1st program):

<http://sustainability.duke.edu/action/greenworkplace/staffworkshop.html>

Name of the employee educators program (2nd program):

Duke Green Lab Certification

Number of employees served by the program (2nd program):

560

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

The Duke Green Lab Certification was created to provide research and instructional staff with the opportunity to reduce the environmental impact of Duke University's research and teaching labs. Certified labs will receive signage to place on their door and a Green Lab logo to post to their lab website. In addition they will receive recognition from the University for their achievement.

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

Prior to submitting a checklist for Duke Green Lab Certification, a staff or faculty member of the lab must attend a monthly Green Labs at Duke meeting to discuss challenge and opportunities for lab greening. Green Labs at Duke is a group of faculty, staff and students dedicated to promoting sustainable practices in Duke University's research and teaching laboratories. The certification process is overseen by several members of Green Labs at Duke who visit each lab that is seeking certification to walk through the checklist with lab staff and ensure that items are completed correctly.

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

University staff manage training and oversight of the certification. Green Lab funding is available through the Green Grant Fund. For lab staff working to achieve the Duke Green Lab Certification, Sustainable Duke seeks to provide financial support for energy and water efficient equipment, as well as smaller items to make the lab a greener workplace. For instance, funding could support an energy-saving retrofit of freezer gaskets and seals. For the purchase of new equipment, funding can support the incremental increase in cost for models that save energy and water. Lab staff can also apply for small items to make the workplace greener, such as reusable water bottles or coffee mugs.

The website URL where information about the program is available (2nd program):

<http://sustainability.duke.edu/action/certifications/labs/index.php>

Name(s) of the employee educator program(s) (all other programs):

Leading for Environmental Sustainability Workshop; Duke Green Classroom Certification

Number of employees served by all other programs:

458

A brief description of how the employee educators are selected (all other programs):

Sustainable Duke hosts a quarterly three-hour staff sustainability workshop through Learning & Organization Development. The workshop is open to all staff. Staff who attend the workshop are tasked with being a leader for sustainability in their workplace and many engage their coworkers in completing the Duke Green Workplace Certification. Staff are added to a listserv maintained by Sustainable Duke, which is used for discussion about workplace greening efforts and to engage staff in additional sustainability programming.

The Duke Green Classroom Certification is a voluntary program created to provide faculty with the opportunity to reduce the environmental impact of their courses and classrooms at Duke University while demonstrating eco-friendly behaviors to students. Faculty are encouraged to engage peer faculty within their departments in the certification as well. Green Teaching can constitute a number of different teaching strategies, including reduction of paper use or paperless teaching, reduction of energy use in the classroom, and reduction in use of classroom supplies other than paper. Faculty who achieve Duke's Green Classroom Certification take significant steps to green the delivery of their course. Examples of common practices implemented by faculty to reduce the environmental impact of their course include allowing electronic submission of assignments, providing online readings and turning off lights and electronics in the classroom when they are not in use. The eco-friendly aspects of course delivery may vary by faculty, by course, and throughout the semester. Certification must be obtained prior to the start date of the course. Duke Green Classroom Certification is awarded based on the completion of 25 of the 35 items on a checklist.

A brief description of the formal training that the employee educators receive (all other programs):

The three-hour, interactive Leading for Environmental Sustainability Workshop covers: sustainability efforts at Duke University; personal changes staff can make to reduce their environmental footprint at work; guiding a department through the Duke Green Workplace Certification; starting and leading a green team; and resources provided by Sustainable Duke.

For the faculty community participating in the Green Classroom Certification, Sustainable Duke offers a training in partnership with the Center for Instructional Technology at Duke at their annual teaching showcase.

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

Sustainable Duke provides snacks for the Leading for Environmental Sustainability Workshop. All employees (staff & faculty) are eligible to apply for Green Grant Funding to fund their campus sustainability project ideas.

The website URL where information about the program(s) is available (all other programs):

<http://sustainability.duke.edu/action/certifications/greenworkplace/staffworkshop.html>

Employee Orientation

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution covers sustainability topics in new employee orientation and/or in outreach and guidance materials distributed to new employees, including faculty and staff. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

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

The percentage of new employees that are offered orientation and/or outreach and guidance materials that cover sustainability topics:

52

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

New Staff Orientations take place at a 4 hour event every two weeks. Duke's Sustainability Outreach Coordinator created a video which is played at each orientation introducing staff to Duke's sustainability commitments and ways that they can become a leader for sustainability. Highlights include the Duke Green Workplace Certification and the Leading for Environmental Sustainability Workshop for staff.

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

<http://www.youtube.com/watch?v=JafO6lBS6v8>

Staff Professional Development

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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
-

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

Does the institution make available training and/or other professional development opportunities in sustainability to all staff at least once per year?:

Yes

A brief description of the sustainability trainings and professional development opportunities available to staff :

Sustainable Duke facilitates a quarterly staff training through Learning & Organization Development in Human Resources at Duke. This training is open to all staff members at Duke and focuses on understanding sustainability, learning about existing sustainability efforts at Duke, and professional development for staff members that will assist them in taking action to create a more sustainable workplace.

Below is a description of the workshop content:

Leading for Environmental Sustainability - Would you like to become a more sustainable staff member and help reduce the environmental impact of your workplace? This 2 hour workshop will provide you with the materials and skills necessary to “green” your office. Sustainability is an expanding field and a serious commitment at Duke. Becoming the sustainability expert in your office provides a competitive advantage in the workplace while helping the planet. In addition to providing ample time for discussion and networking with other staff about their challenges and successes with office greening, the workshop covers:

- sustainability efforts at Duke University
- personal changes you can make to reduce your environmental footprint at work
- guiding your department through the Duke Green Workplace Certification

- starting and leading a green team
- resources provided by Sustainable Duke to assist you in office greening.

The percentage of staff that participated in training and/or other professional development opportunities in sustainability during the previous year:

0.01

The website URL where information about staff training opportunities in sustainability is available:

<http://sustainability.duke.edu/action/greenworkplace/staffworkshop.html>

Public Engagement

This subcategory seeks to recognize institutions that help catalyze sustainable communities through public engagement, community partnerships and service. Engagement in community problem-solving is fundamental to sustainability. By engaging with community members and organizations in the governmental, non-profit and for-profit sectors, institutions can help solve sustainability challenges. Community engagement can help students develop leadership skills while deepening their understandings of practical, real-world problems and the process of creating solutions. Institutions can contribute to their communities by harnessing their financial and academic resources to address community needs and by engaging community members in institutional decisions that affect them. In addition, institutions can contribute toward sustainability broadly through inter-campus collaboration, engagement with external networks and organizations, and public policy advocacy.

Credit
Community Partnerships
Inter-Campus Collaboration
Continuing Education
Community Service
Community Stakeholder Engagement
Participation in Public Policy
Trademark Licensing
Hospital Network

Community Partnerships

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has one or more formal partnership(s) with the local community, including school districts, government agencies, non-profit organizations, businesses and/or other entities, to work together to advance sustainability within the community.

Each partnership conforms to one of the following types:

Type of Partnership	Indicators
<p>A. Supportive</p>	<ul style="list-style-type: none"> • <i>Scope:</i> Addresses a sustainability topic or a specific aspect of sustainability (e.g. community garden, environmental remediation, community environmental health and education) • <i>Duration:</i> May be time-limited (short-term projects and events), multi-year, or ongoing • <i>Commitment:</i> Institutional involvement may include financial and/or staff support or may be limited to resource sharing and/or endorsement • <i>Governance:</i> Campus and community leaders or representatives are engaged in program/project development
<p>B. Collaborative</p>	<ul style="list-style-type: none"> • <i>Scope:</i> Addresses one or more sustainability challenge and may simultaneously support social equity and wellbeing, economic prosperity, and ecological health (e.g. a green jobs program in an economically disadvantaged neighborhood) • <i>Duration:</i> May be time-limited, multi-year, or ongoing • <i>Commitment:</i> Institution provides faculty/staff, financial, and/or material support • <i>Governance:</i> Campus and local community members are both engaged in program/project development, from agenda setting and planning to decision-making, implementation and review

C.Transformative

- *Scope:* Catalyzes community resiliency and local/regional sustainability by simultaneously supporting social equity and wellbeing, economic prosperity, and ecological health on a community or regional scale (e.g. “transition” projects and partnerships focused on community adaptation to climate change)
- *Duration:* Is multi-year or ongoing and proposes or plans for institutionalized and systemic change
- *Commitment:* Institution provides faculty/staff and financial or material support
- *Governance:* Partnership has adopted a stakeholder engagement framework through which community members, vulnerable populations, faculty, staff, students and other stakeholders are engaged in program/project development, from agenda setting and planning to decision-making, implementation and review

An institution may have multiple partnerships of each type, however no single partnership may be both supportive and collaborative, collaborative and transformative, or supportive and transformative.

Recognizing the diversity of forms that community partnerships may take, it is not required that a partnership meet all of the criteria listed to be considered supportive or collaborative. A partnership must meet all of the criteria listed to be considered transformative, however. For further guidance in identifying community partnerships that meet the criteria for each type, see the Credit Example in the [STARS Technical Manual](#).

This credit recognizes campus-community partnerships that advance sustainability in an explicit and participatory way. Participatory, community-based research and engaged scholarship around issues of sustainability may be included if it involves formal partnership(s). Although community service activities (e.g. academic service learning, co-curricular service learning and volunteer activities, Work-Study community service and paid community service internships) may involve local partnerships and contribute toward sustainability, they are not included in this credit. Community service is covered by *EN 12: Community Service*.

Submission Note:

Duke Carbon Offsets Initiative home energy efficiency program -
http://sustainability.duke.edu/carbon_offsets/efficiency.php

Duke Engage -
<http://dukeengage.duke.edu/>

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

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “supportive”?:

Yes

A brief description of the institution’s supportive sustainability partnership(s) with the local community:

There are several ongoing student-run initiatives promoting sustainability and environmental education in the community surrounding Duke. For instance, Wilderness Outdoor Opportunities for Durham Students (WOODS) is a program that is run by Duke students promoting nature and environmental experiential education in the Durham area. The goal of WOODS is not only to educate the children they work with, but to help them gain a sense of self-worth and build their self-esteem. Aspects of ecology, the environment, and basic natural principles are taught through team building exercises, games, and spending time outdoors.

In a partnership between Duke University (in particular the grounds team within Facilities Management), Durham's city government and Keep Durham Beautiful, Duke has assisted the "Trees Across Durham" campaign. The Duke Campus Farm provided a space for 63

young willow oaks to grow from local acorns for two years, and provided volunteers to help transplant these trees as they are moved to parks and schools around Durham.

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “collaborative”?:

Yes

A brief description of the institution's collaborative sustainability partnership(s):

The Duke Carbon Offsets Initiative is conducting research and implementing a pilot program to determine how residential energy efficiency can provide social and economic benefits to the surrounding communities while also providing energy efficiency credits or carbon offsets to help Duke University become climate neutral by 2024.

Duke University’s Carbon Offsets Initiative (DCOI) has partnered with the Clinton Climate Initiative to bring a customized version of the Home Energy Affordability Loan program (HEAL) to a select number of Duke employees. The DCOI-HEAL program is offering free home energy assessments and Personal Energy Plans (a \$500 value) to a limited number of Duke University employees in Durham County.

The program is designed to assist employees in making energy efficiency improvements to their homes through an easy, no-hassle process. By participating in this program, employees have the opportunity to save energy and money within their homes and help Duke University meet its goal to become carbon neutral by 2024.

The first round of the pilot resulted in energy usage reductions of an average of thirteen percent in the seven homes. DCOI is currently seeking 20 additional employees to participated in a second round of the pilot.

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as “transformative”?:

Yes

A brief description of the institution's transformative sustainability partnership(s) with the local community:

The Office of Durham and Regional Affairs is home to the Duke-Durham Neighborhood Partnership and the Community Service Center. Duke’s Board of Trustees created the office in 2008 to expand and deepen the university’s engagement with Durham Public Schools, the City of Durham, local neighborhoods and non-profits, and the region at large.

Durham and Regional Affairs staff members work to build and sustain partnerships and programming that advance community goals, with a special focus on local youth, K-12 education and economic development.

Duke’s support for Durham Public Schools is broad. We celebrate the ingenuity of Durham’s students through initiatives like the Duke Regional Spelling Bee; advance the professional development and community connections of school staff through programs like Visions; and respond to schools’ most pressing needs through a range of programs that address kindergarten readiness, early literacy and Latino student engagement.

Support for local schools is a natural part of Duke’s mission as an educational institution. We believe Duke’s engagement with public schools not only enhances the education of local youth; it enriches the lives of Duke students, faculty and staff.

It's impossible to fully capture or quantify the close ties between Duke and Durham, or the endless exchange of knowledge, relationships, business and ideas. Here are a few examples of Duke's roles as a neighbor, employer, investor and partner in Durham:

--Through the Southside Housing Incentive Program, Duke is supporting the City of Durham's efforts to revitalize the historic Southside neighborhood while providing high-quality housing to its own middle-income employees.

--Since Duke and Self-Help entered into a loan agreement in 1994, more than 220 units of affordable housing have been built in the Walltown and Southwest Central Durham communities, with input from neighbors and support from local non-profit developers.

--With funding from Duke, the City of Durham and the federal government, the Bull City Connector bus route launched in 2010 to provide fare-free service between downtown, Duke Medical Center and the university.

--The Maplewood Square apartment building opened in 2010 for low-income seniors living in the heart of Durham's West End community. The project was a collaboration between the City of Durham, DHIC, Durham Community Land Trustees, Duke and Self-Help.

Additionally, Duke University's Office of Community Affairs directly coordinates the Duke-Durham Neighborhood Partnership. The Partnership, which was formed in 1996, has a focus on affordable home ownership, educational achievement, youth outreach, neighborhood safety, and quality health care.

A brief description of the institution's sustainability partnerships with distant (i.e. non-local) communities:

Many of the domestic and international programs offered to Duke students through Duke Engage are either focused on sustainability or include elements of sustainability. DukeEngage empowers students to address critical human needs through immersive service, in the process transforming students, advancing the University's educational mission, and providing meaningful assistance to communities in the U.S. and abroad.

Students each year participate in a vast range of civic engagement activities, including environmental advocacy, community outreach, global health, education, social justice and more. Since 2007, students have:

- launched mentoring and school enrichment programs;
- created community support initiatives;
- designed health education and outreach programs;
- improved a community's health information infrastructure;
- produced environmental education documentaries;
- developed microfinance opportunities for disadvantaged women and families.

The website URL where information about sustainability partnerships is available:

<https://community.duke.edu/>

Inter-Campus Collaboration

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution collaborates with other colleges and universities to support and help build the campus sustainability community.

See the Credit Example in the STARS Technical Manual for guidance on identifying appropriate collaborations.

"---" 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:

Presentations

- 2014 NC Sustainable Energy Conference, "Sustainability 101 for Universities", Tavey Capps, Raleigh, NC, April-14
- 2014 Smart & Sustainable Campuses Conference, "Culture of Sustainability: The Power of Gaming, Rewards & Social Norms", Casey Roe, Baltimore, MD, Mar-14
- 2013 AASHE Conference Presentation, "Promoting Sustainable Agriculture and Access to Local Food in the Carolinas Program: Campuses to Communities", Tavey Capps, Nashville, TN, Oct-13
- 2013 NC APPA, "Working Together to Find Solutions", Tavey Capps, Arwen Buchholz, Greensboro, NC, Apr-13
- 2013 Smart and Sustainable Campuses Conference, Casey Roe - "Inspiring Behavior Change with Competition ", Bethesda, MD, April 2013.
- 2012 AASHE Conference Presentation, Casey Roe - "Campus as a Training Ground for Careers in Sustainability", Los Angeles, CA, October 2012.
- 2012 Smart and Sustainable Campuses Conference, Casey Roe, Emily Sloss - "The Duke Campus Farm as a Learning Laboratory", College Park, MD, April 2012.
- 2012 AASHE Conference Presentation, "Sustainability Offices 2.0", Tavey Capps, Los Angeles, CA, Oct-12
- Greening the Campus 2012, "Bridging the Operation and Academic Sustainability Gap – Lessons Learned through Collaboration at Duke University", Tavey Capps, Charlotte Clark, Muncie, ID, Mar-12
- 2012 Academic Facilities Council Annual meeting, "Duke's Sustainability Efforts and DCOI", Tavey Capps, Tanja Vujic, Durham, NC, Apr-12
- 2011 Smart and Sustainable Campus Conference, "Public Sustainability Commitments", Tavey Capps, College Park, MD, Apr-11
- 2011 NCSU Net Impact, "University Sustainability Panel", Tavey Capps, Raleigh, NC, Sep-11
- 2010 Smart Sustainable Campus Conference, "Change Behavior – Change Climate: Effective Transportation Demand Management

Strategies in Reducing Campus Carbon Emissions", Tavey Capps, College Park, MD, Mar-10

- 2010 Smart and Sustainable Campus Conference Plenary Session, "The Rewarding, Bold and Sometimes Bumpy Road to Climate Neutral", Tavey Capps, College Park, MD, Mar-10

-2010 AASHE Conference Presentation, Casey Roe –“Doing More with Less: Tapping Campus Partnerships and Online Resources”, Denver, CO, October 2010.

-2010 AASHE Conference Presentation, Casey Roe—“Measuring and managing sustainability using SAS at Duke University”, Denver, CO, October 2010.

-2010 Ivy Plus Sustainability Meeting, Casey Roe—“ Green Marketing and Outreach in Athletics”, Philadelphia, PA, April 2010.

-2010 AASHE Conference Presentation, Heather Hosterman – “Local Carbon Offset Projects lessons from Duke University”, Denver, CO, October 2010.

-The Duke Endowment, Tatjana Vujic & Heather Hosterman – “The Duke Endowment Campus Sustainability Summit” (an update on the offset initiative with a focus on energy), Davidson College, Davidson, NC, September 14-15, 2010.

-Climate Action Reserve: Special Topics Series, Tatjana Vujic & Heather Hosterman – “The Duke Carbon Offsets Initiative”, webinar, August 26, 2010.

Documents

-Duke Carbon Offsets Initiative & Nicholas Institute – "A Spatial-Economic Optimization Study of Swine-Waste Derived Biogas Infrastructure Design in North Carolina", April 2013 (see

<http://www.hr.duke.edu/media/sustainability/SwineBiogas.pdf>

)

-National Wildlife Federation Campus Ecology Case Study— "Duke Waste Reduction 2012"

-National Wildlife Federation Campus Ecology Case Study—“DukeEngage Carbon Offsets Pilot Project at Duke University”

-2010 AASHE Case Study—“DukeEngage Carbon Offsets Pilot Project at Duke University”

-US EPA, Duke University, Environmental Defense Fund—“Facilitating Carbon Offset Projects on North Carolina Swine Farms to Encourage Greenhouse Gas Emission and Other Pollution Reductions” (see

<http://sustainability.duke.edu/documents/dukeoffsets.pdf>

)

-Sustainable Duke & Nicholas Institute – “The Role of Offsets in Meeting Duke University’s Commitment to ‘Climate Neutrality’: A Feasibility Study”, November 2008 (see

<http://sustainability.duke.edu/images/OffsetsFeasibilityStudy.png>

)

-Swine Carbon Offset Estimator (see

http://sustainability.duke.edu/carbon_offsets/swine.php

)

-"Growing Green: Becoming a Carbon Neutral Campus", October 2009 (see

http://sustainability.duke.edu/climate_action/Duke%20Climate%20Action%20Plan.pdf

)

The names of local, state/provincial, regional, national, or international campus sustainability organizations or consortia in which the institution participates and/or is a member:

- Ivy Plus sustainability group
- Southeast Sustainability Network
- Association for the Advancement of Sustainability in Higher Education
- The Duke Endowment (partnership on sustainability with Davidson College, Johnson C. Smith University, & Furman University)
- Triangle Area Sustainability Coordinators group
- Triangle Area Sustainability Outreach Coordinators group
- Southeast Eco-Reps Conference

A brief summary of additional ways the institution collaborates with other campuses to advance sustainability :

The sustainability staff at Duke University collaborate regularly with other campuses to advance sustainability in higher education as a whole. We regularly participate in and contribute to discussions and questions on the Green Schools listserv. We take part in monthly calls focused on sustainability and annual meetings with the Ivy Plus schools and with the SE Sustainability Network Schools.

Additionally, our sustainability director and outreach coordinator periodically meet with their peers from local triangle universities and cities.

We also organize and coordinate events with other schools on an ad-hoc basis. For instance, in May of 2010, Duke University hosted 7 other area North Carolina universities for a "train-the-trainers" workshop teaching faculty to integrate sustainability into their courses.

Duke University frequently collaborates with peer schools on conference presentations, such as a Spring 2015 presentation on social media at the Smart & Sustainable Campuses Conference with sustainability outreach coordinators from UNC Greensboro, UNC Chapel Hill, NC State and Elon. In the spring of 2015, Duke will participate in a local alternative transportation competition with other universities in the area.

The website URL where information about cross-campus collaboration is available:

Continuing Education

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution offers continuing education courses that address sustainability.

Courses that address sustainability include continuing education sustainability courses and continuing education courses that include 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 at least one sustainability-themed certificate program through its continuing education or extension department.

Degree-granting programs (e.g. programs that confer Baccalaureate, Masters, and Associates degrees) and certificates that are part of academic degree programs are not included in this credit. They are covered in the Curriculum subcategory.

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

Does the institution offer continuing education courses that address sustainability?:

Yes

Number of continuing education courses offered that address sustainability:

23

Total number of continuing education courses offered:

601

A copy of the list and brief descriptions of the continuing education courses that address sustainability:

A list and brief descriptions of the continuing education courses that address sustainability:

Approaches to Community Development

2 CEUs

Duration: 5 Weeks

Description: Explore both the structure and practice of community development around the world. Engage in a critical analysis of different approaches to community development, their historical development and underlying assumptions. Gain an understanding of the structural and practical issues that promote or detract from the goal of community empowerment.

Upon completion of this course participants will be able to:

- Outline the historical development and underlying assumptions of different approaches to community development.
- Identify the issues faced by the rapidly changing field of community development.
- Distill key structures and practices for becoming more effective.

Community-Based Food Systems

2 CEUs

Duration: 5 Weeks

Description: The cultivation, preparation, distribution, and consumption of food are practices that shape how we organize ourselves socially, economically, and politically. Control over food is central to the sustainability and self-determination of communities. In this seminar, you will learn about different approaches to building community-based food systems and movements for food justice around the world. Together, we will evaluate various strategies for protecting community food resources and rebuilding local food economies, as well as the factors that threaten these efforts. With special consideration for marginalized communities in the global North and South, students will develop a conceptual toolkit and set of resources to help them assess the limitations and possibilities of their own community's food system.

Upon completion of this course participants will be able to:

- Understand the historical and economic “root causes” of global hunger, peasant displacement, and environmental degradation.
- Understand the key differences between the “dominant paradigm” of food system change and alternative models based in food sovereignty and food justice.
- Identify concrete examples of political and practical strategies, in the global North and South, for promoting community-based food systems and evaluate the effectiveness of these strategies.
- Support local and global movements for community-based food systems by engaging in informed activism.

Community-Based Health

2 CEUs

Duration: 5 Weeks

Description: Access to health care and other resources, such as nutritious foods, employment, clean water, safe housing, education, etc. are crucial to maintaining health and well-being. In an ideal world, everyone would have access to these essential means for survival; however, it is all too apparent this is not the case for many communities and populations around the world. It is desirable, therefore, for those groups who are not supported by a formal health care system to seek alternative solutions for the resources they lack. Using case studies and other readings, along with group discussion, this course will explore the global, social, political, economic, and cultural factors that contribute to poor health. It will also look at methods for empowering communities who lack access to health care to create practical solutions that are relevant to their unique situations. Community-Based Participatory Research will be one of the key strategies dealt with in this course due to its focus on promoting change at the grass roots level.

Upon completion of this course participants will be able to:

- Identify micro and macro level factors that affect health and well-being.
- Collaborate with communities to evaluate their needs in regard to health and cultivate ideas for appropriate actions to address those needs.
- Provide support for community-based solutions to health issues by establishing connections to information and resources.

Community-Based Mapping

2 CEUs

Duration: 5 Weeks

Description: Mapping can be a powerful tool for communities to use to better manage their resources, plan for the future, record and utilize local knowledge, raise awareness about areas of concern in their environmental and social landscape, and communicate their priorities and concerns to external agencies or government officials. This course will explore theories, ethics, applications, and methods of community-based mapping and its role in participatory learning and action as well as larger processes of integrated community-based development. This course, while drawing on many of the recent case studies, academic writings, and reports from the field, will be highly interactive and will emphasize the sharing of experiences, ideas, and insights from course participants.

Upon completion of this course participants will be able to:

- Understand the basic principles, theories, and ethics of community-based mapping and its role in community-based development.
- Identify which mapping methods and tools are most appropriate to achieve the desired objectives in your community.
- Locate and utilize existing geographic information data sets, online and elsewhere, for specific project areas.
- Learn some basic mapping functions (including projecting GPS coordinates onto a map, downloading and projecting satellite images, creating features from aerial imagery, and more).

Community-Based Organizing

2 CEUs

Duration: 5 Weeks

Description: The importance of an approach to community development that increases the rights of poor and marginalized people within governing structures has never been more apparent. Situations of severe oppression and marginalization demand organizing techniques that go beyond a traditional “hand-out” style approach to development. Taking a practical hands-on perspective, this course will explore the theories, tools, styles, and challenges of community-based organizing. It will discuss practical strategies for developing community leadership and working with marginalized communities. Together, we will discover the impact that ordinary individuals can have on the world.

Upon completion of this course participants will be able to:

- Apply basic organizing techniques, such as popular education and direct action.
- Understand the role of privilege, race, gender, and class in struggles for change.
- Understand the history and basic principles of community organizing.
- Design methods to help support and organize the local community.

Community Participation and Dispute Resolution

2 CEUs

Duration: 5 Weeks

Description: Over the last three decades, community dispute resolution has become a worldwide export, embraced by many organizations throughout the world. This practice includes community mediation, facilitation, collaborative problem solving, conflict resolution, conflict transformation, and even conflict transcendence. Looking closely at these processes and practices, we will explore their social and cultural significance and applicability in various communities. We will ponder the power dynamics of disputes and their contexts and how we seek to find our own center in relation to such disputes. The course will be largely issue-focused, with an eye toward working with indigenous communities and in other sensitive cultural contexts.

Upon completion of this course participants will be able to:

- Examine the nature of community dispute resolution processes and practice.
- Reflect upon cultural assumptions about dispute resolution.
- Explore the dynamics and contexts of power in disputes.

Community Mobilization

2 CEUs

Duration: 5 Weeks

Description: Explore what turns a group of individuals into an organization or social movement. Consider what structural, social, or psychological barriers inhibit or prevent individuals and groups from getting involved and working together for change. Examine the definition of community mobilization as both an initial and ongoing process central to any community and social change effort with a common goal or vision that seeks to build support and participation of individuals, groups, and institutions. Learn from the theories and

methods of Brazilian educator Paulo Freire, whose work has guided some of the most successful development and education programs around the globe, including the Orangi Pilot Project in Pakistan, the NAAM movement in Burkina Faso, and the Sarvodaya Shramadana Movement in Sri Lanka, among others.

Upon completion of this course participants will be able to:

- Identify the role of community mobilization in the context of human rights-based approaches to community development.
- Outline the causes and psychological effects of poverty oppression.
- Communicate with individuals and communities to enhance trust and solidarity.
- Assist communities in the analysis and transformation of their world.

Development and the Politics of Empowerment

2 CEUs

Duration: 5 Weeks

Description: Over the last few decades, many scholars have begun to challenge traditional conceptions of development. Their work has generated an intense debate between those that attribute “underdevelopment” to cultural factors, and those that dismiss such ideas as racially motivated and instead recognize poverty and marginalization as primarily structural and systemic issues. Indeed, the concept of poverty itself has been challenged. Employing this critical lens, the course will examine the assertion that development should not only be seen as an economic process of wealth accumulation, but rather as a socio-political process of empowerment. This realization has major implications for how NGOs approach development, as it brings to light the fact that this work has a substantial political component. In order to overcome the disadvantages of poverty, structural barriers to success must be addressed. Through a careful investigation of the historical applications of development, we will explore the idea that development is an inherently political process and challenge the claim that any development NGO is apolitical. Additionally, we will strive to identify successful methods of community empowerment through political organization.

Upon completion of this course participants will be able to:

- Analyze the underlying political implications and perspectives of seemingly apolitical actions in development work.
- Apply and refine techniques of empowerment and advocacy.
- Explain the history of development thinking as it relates to politics.
- Articulate a broader understanding of key terms, such as empowerment, participation, politics, and power.

Gender Equity in Development

2 CEUs

Duration: 5 Weeks

Description: Women’s participation and empowerment in development is one of the major Millennium Development goals and has become an important ideal in a lot of development policy and theory. Yet there has been little dialogue as to how gender equity can actually be implemented in practice.

Women centered projects, such as microcredit and cooperatives, create new assets and enlarge the amount of available resources to communities but often do not address control of existing resources. Genuine gender equity must take into account existing relationships as well as newly developed ones.

This course will seek to understand and recognize the various forms of women’s power, potentials for disempowerment in many development initiatives, and how practitioners can facilitate gender equity in community-based sustainable development.

The course will be highly interactive and will emphasize the sharing of experiences, ideas, and insights from participants. Participants will be encouraged to test the ideas discussed by applying them to their own communities or development projects. This course will use case studies and readings to understand gender equity in development.

Upon completion of this course participants will be able to:

- Compare women in development vs. gender equity approaches.
- Incorporate gender equitable methodologies into community development activities.
- Design a gender equitable project for your community or project area.

Local Communities and Climate Change Mitigation Strategies

2 CEUs

Duration: 5 Weeks

Description:

“The environment and the economy are really both two sides of the same coin. You cannot sustain the economy if you don’t take care of the environment because we know that the resources that we use whether it is oil, energy, land ... all of these are the basis in which development happens. And development is what we say generates a good economy and puts money in our pockets. If we cannot sustain the environment, we cannot sustain ourselves.” -- Wangari Maathai

This course provides an overview of how climate change is impacting the livelihoods of local and indigenous communities and looks at mitigation strategies proposed to combat climate change effects while promoting sustainable livelihoods. We will examine the role of science and local traditional knowledge in mitigating climate change. We will look at carbon trading, carbon offsets and REDD (Reducing Emissions from Deforestation and Degradation) and PES (Payment for Environmental Services), and we will analyze the international policy context in which these solutions were born. We will critically analyze mitigation solutions and various projects, assess their local impacts, making sure we capture the community’s perspective. Our planet is heating up due to anthropogenic greenhouse gas emissions. This is manifesting in different ways and all around the Earth: weather patterns are changing, desertification is expanding, sea level is rising, oceans are becoming more acid, and many species are on the brink of extinction. In an effort to mitigate climate change, economists, governments, corporations and environmentalists have proposed, since early 1990s, the use of ‘offsetting’ mechanisms to help polluting industries to compensate for their CO2 emissions by either expanding or protecting forests somewhere else. The idea of offsetting industrial carbon emissions through biological carbon sequestration and storage has been fiercely debated since it was first proposed, as well as putting a price on nature and on the “services” provided to our planet. Big conservation organizations, developed country governments and lately the private sector see these mechanisms fit to help combat climate change, whereas some NGOs, developing country governments and many local communities remain skeptical to their efficiency and even see them as dangerous and working against locals. Description: This course provides an overview concerning how climate change impacts the livelihoods of local and indigenous communities and looks at mitigation strategies proposed to combat climate change effects while promoting sustainable livelihoods in local communities.

We will examine the role of science and local traditional knowledge in mitigating climate change. We will look at carbon offsets and REDD (Reducing Emissions from Deforestation and Degradation), and we will analyze the international policy context in which these solutions were born. We will critically analyze various mitigation solutions and projects undertaken in communities and assess their local impacts, making sure we also capture the community’s perspective.

Our planet is heating up due to anthropogenic greenhouse gas emissions. Climate change manifests in different ways and all around the earth: weather patterns are changing, desertification is expanding, sea level is rising, oceans are becoming more acid, and many species are on the brink of extinction. In an effort to mitigate climate change, economists, governments, corporations, and environmentalists have proposed since early 1990s the use of ‘offsetting’ mechanisms to help polluting industries compensate for their CO2 emissions by either expanding or protecting forests somewhere else. The idea of offsetting industrial carbon emissions through biological carbon sequestration and storage has been fiercely debated since it was first proposed. There are split opinions on the benefit of such schemes. Big conservation organizations, developed country governments, and lately the private sector see REDD and carbon offsetting as the best mechanisms to help combat climate change, whereas some NGOs, developing country governments, and many local communities remain skeptical to their efficiency and even see them as dangerous and working against local communities.

Upon completion of this course participants will be able to:

- Understand the variety of issues and challenges faced by organizations, nations, and local and indigenous communities related to climate change mitigation.
- Critically assess the impacts of climate change mitigation strategies on local communities.
- Understand the role of traditional knowledge in mitigating climate change.
- Make informed decisions when analyzing carbon offsetting/REDD projects.

Micro-Finance Projects: Sustainable Community Development and the Role of Women

2 CEUs

Duration: 5 Weeks

Description: In the context of developing communities across the world, the role of microenterprise is crucial. Identification of people

who would undertake micro enterprise is the first important step. Identification of projects to fit the people and their needs and equipping people with the basic skills to run micro-enterprises profitably is the next step in the process. Women-oriented projects are vital as self-esteem building activities for women whose micro enterprises typically, in the long run, produce far reaching economic and social impact for the entire community.

Micro-enterprises have become an important vehicle of development for developing economies. They are small-scale, low-investment projects that provide fulfillment and fairly immediate income generation. This has a great impact on boosting self-confidence which in turn affects family and social life.

Micro enterprises greatly influence the women who, in developing economies, are generally uneducated or semi-educated, are dominated by men, and have relatively low societal status. Micro enterprises energize women to become economically self-sufficient, empower them to be emotionally self-confident, and enable them to have a voice in society. Their newly acquired influence reflects in improved living conditions at home and better prospects for their children's futures.

Upon completion of this course students will be able to:

- Explain the role and impacts of micro-finance.
- Recognize the different types of micro-enterprises: manufacturing, agricultural and non-agricultural based industries, marketing and providing services.
- Develop a microfinance pilot project.

Participatory Monitoring and Evaluation

2 CEUs

Duration: 5 Weeks

Description: Discover participatory methods in monitoring and evaluation for community development where multiple stakeholders are involved in the process of planning, collecting, interpreting, communicating, and using information. Gain skills in using regular monitoring and evaluation processes in order to lead to continuous improvements.

Upon completion of this course participants will be able to:

- Plan a monitoring and evaluation project.
- Develop evaluation questions that address stakeholders' needs.
- Select the most appropriate data collection method for a given situation.
- Effectively communicate monitoring and evaluation data.
- Use monitoring information for effective feedback and improvement.

Participatory Water Resource Management

2 CEUs

Duration: 5 Weeks

Description: Millions in both urban and rural communities worldwide are becoming vulnerable to water scarcity, social exclusion from access to water, and polluted water sources and water-borne diseases. Overpopulation, falling groundwater tables, the mismanagement of water sources, pollution, and over-extraction all threaten to exacerbate the already severe decline in available water resources. A community-based and participatory approach involving and empowering users and managers of local communities is necessary to balance the various needs and demands on available resources. This course will explore important concepts and strategies for successful participatory water conservation strategies to ensure long-term, sustainable solutions to managing water resources effectively in communities around the world.

Upon completion of this course participants will be able to:

- Work with communities using tools such as social asset mapping to identify value-based water and sanitation priorities and implement these into their community development plans.
- Deliver training and develop capacity of local communities.
- Understand how to integrate users and managers of local communities, government bodies, and various stakeholders into all components of effective water management plans.

Social Entrepreneurship and Enterprise Development

2 CEUs

Duration: 5 Weeks

Description: One of the biggest challenges we face in today's global economy is the alleviation and ultimate elimination, of poverty. Unemployment, lack of economic opportunities and the inability to provide for one's needs and those of one's family, lead to destructive consequences at the individual level and can lead to crime and armed conflict at the social level. While the latest development theory recognizes the importance of entrepreneurship and micro-enterprise generation in combating poverty, providing employment and increasing income, in order to address poverty at the grass-roots level, we need to explore the intersection of traditional business concepts with social venturing. This course aims to provide an understanding of social entrepreneurship that will help us put theory into practice in a meaningful way.

This course will examine entrepreneurship and enterprise generation as a key foundation of the development of both economic and social capital, as well as individual and community empowerment. Its main emphasis will be the exploration of entrepreneurship with an imperative to drive social change and build sustainable ventures. Its focus will be on designing enterprises for the base of the economic pyramid in the context of disadvantaged communities. We will participate in the unfolding dialogue about what constitutes a "social entrepreneur", develop an understanding of the power of "disruptive innovation", and study success stories from around the world, thereby gaining valuable insights into how to develop our own enterprises.

This course will require critical thinking, be highly interactive, and students will share their experiences, ideas, insights and challenges. Participants will be able to apply the learning from this course to their own start-ups and field projects.

Upon completion of this course participants will be able to:

- Understand the role of enterprise development in poverty reduction.
- Identify key elements to designing a successful social venture.
- Analyze social entrepreneurship in the context of developing sustainable businesses.
- Network with resource organizations for social enterprise development projects.

Technology and Community Development

2 CEUs

Duration: 5 Weeks

Description: Explore how technology, both a blessing and curse, is critical for individuals and communities accessing and managing resources. Consider equitable distribution of technology and its productive gains, environmental impacts, debt burdens, health consequences, and impacts on the social and cultural fabric of a community. Examine some of the practical and ethical challenges faced by communities and community workers in their efforts to develop or introduce new technologies to enhance human well-being. Discover important concepts and strategies for successful participatory technology development, emphasizing principles developed by thinkers such as Ghandi and E.F. Schumacker.

Upon completion of this course participants will be able to:

- Outline the history and basic principles of appropriate technology.
- Work with communities to analyze their situation, develop strategic directions, and generate appropriate technology packages.
- Support community-based technology generation efforts by creating linkages to information and resources.

Tourism and Development

2 CEUs

Duration: 5 Weeks

Description: Globally, tourism initiatives receive considerable public funding and private investment as a means of economically developing low-income communities. NGOs are taking on a growing role in local tourism initiatives, as well as voluntourism, in hopes of injecting capital into the communities where they work. Amongst proponents, tourism is seen as a mechanism for local communities to capitalize on assets such as the natural environment and cultural heritage. Yet critiques often note that tourism can be destructive, elite and at times oppressive. In light of this critical lens, we will explore both successful and problematic tourism initiatives. We will critically examine the nature of tourism, its impacts on communities and considerations that must be taken into account in order for a tourism project to have the desired impact of development without destroying.

Upon completion of this course participants will be able to:

- Identify best practices for successful tourism initiatives.
- Work with a community to evaluate how tourism may impact their lives.

- Network with private, public and non-profit institutions in the field of tourism and development.
- Understand common challenges and issues with eco-tourism and voluntourism.

THE WORLD TODAY

This course is for those who are interested in current events. Each week we discuss news from the United States, the world, and the Triangle. We begin each class with a list of proposed topics and discuss those of interest to the group. Class members also offer topics for discussion.

Active participation by class members is encouraged (but not mandatory), as it expands our mutual understanding of the many events that might affect us. Discussions are enriched by the variety of backgrounds, expertise, and viewpoints of class members. Topics are discussed knowledgeably, respectfully, and sometimes with passion, but we always end with humor, looking forward to the next class. We offer two sections of this class. The discussion leaders will rotate between the two sections. While not necessarily experts in the field, each has participated in “The World Today” discussions many times; each brings a distinctive style and background to the class, and most important, each will elicit a wide spectrum of views from class members.

ENERGY UPDATE:

Our National Addiction Continues

We have become a nation of energy addicts. Without electricity at the flick of a switch and gasoline at the pump, our comfortable world would collapse into a miserable struggle for subsistence. Is that overly dramatic? Think about it. In this course, we will discuss how we reached this state of dependency over the past couple of centuries and what is being done to prepare for the day when we begin to run short of the ancient—and nonrenewable—reserves of fossil fuels that provide most of today’s energy and contribute to major environmental problems. We will mix a bit of history with a dash of technology, add some simple economics, and, of course, throw some politics into the stew. By the end of the course we should know enough to try to understand whether the United States has a rational energy policy.

CURRENT PUBLIC POLICY ISSUES—2014

This course will explore public policy issues that are currently areas of contention between conservative, liberal, and other groups. We will begin with forty minutes of presentations followed by fifty minutes of class questioning and discussion. Among the topics will be the following:

- 1 K-through-12 education—what is the best way to educate our children?
- 1 workforce training—preparation for employment
- 1 fiscal policy—growth, deficits, and taxation
- 1 monetary policy—the Fed, inflation, and asset bubbles
- 1 foreign policy and defense—vital national interests and defense of the homeland
- 1 healthcare—optimizing quality and access
- entitlements—Social Security and Medicare nonmeans tested programs going broke
- 1 immigration—by ability and skills or uniting families and refugees
- 1 energy policy—cheap energy to grow economy or expensive energy to reduce pollution
- 1 federal regulations—rationale for costly market interference (OSHA, EPA, FCC, FDA, etc.)
- 1 elections—the new law explained

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THOMAS BERRY'S

DREAM OF THE EARTH:

Foundations of an Ecological Civilization Thomas Berry, formerly of Greensboro, is the leading thinker in human ecology of our time. 2014 is the 5th anniversary of his death and the 100th anniversary of his birth. The Dream of the Earth, his landmark book, has sold over 100,000 copies. First published in 1988, it is still regarded as the key source for his thought. Berry taught that the universe expresses itself as a succession of dream experiences and that humans are part of the dream of the Earth. The question, then, is not what do we want Earth to be, but what does Earth want us to be? Drawing on the wisdom of Western philosophy, Asian thought, and Native American traditions, as well as contemporary physics and evolutionary biology, Berry recasts our understanding of science, technology, politics, religion, ecology, and education. In this course, we will explore Berry's ideas and how he speaks to us today.

NATIVE AMERICAN VIEWS OF LAND:

Space and Place as Sacred

Almost all of the Native American tribes have a traditional concept of land as a mother held in sacred esteem. This course will explore how space and place are central to different tribes' spiritual philosophies and practices, as well as how animals and plants fit into their sacred ecology. These views will be contrasted to those of European colonizers who viewed land as property and nature as resource. We will examine how conflicting views played out historically, from Europeans' "legal" justifications to appropriate native land in early colonization to the nineteenth-century Allotment Act's attempt to teach Indian people the concept of "private property." We will also look at how these conflicting views are evident in contemporary land and resource issues affecting American Indians. Throughout the course, we will bracket the deeper question of what these indigenous traditional sacred ecologies might teach mainstream America about the environmental issues facing us today.

ENERGY & THE ENVIRONMENT:

Exploring Paths toward a Cleaner Future

To frack or not to frack? Is clean coal an oxymoron? Nuclear energy—a cleaner choice or a catastrophe waiting to happen? These are central questions to the great energy debate that rages in our country. In this course, we'll study the historical and economic events that frame the current energy debate. We'll learn about the scientific basis for the most controversial forms of energy generation, and we'll examine the environmental impacts of these processes with a special focus on North Carolina. The end goal is to become informed citizens so we can participate in the debate with full knowledge of all the complexities involved. Course topics will include fracking, clean coal, nuclear energy, wind energy, solar energy, and biogas.

Does the institution have at least one sustainability-themed certificate program through its continuing education or extension department?:

Yes

A brief description of the certificate program:

The Sustainable Community Development program offers online, noncredit courses designed for people who currently work in community development and desire to advance their careers as well as those who plan to work or volunteer in this field. A Certificate of Completion is awarded to those who pass four as part of a specialization or pre-approved custom track. Specializations include:

- Community Planning and Development
- Economic Development
- Food Security / Agriculture
- Participatory Facilitation
- Political Empowerment
- Service and Civic Engagement

Courses are taught by practitioners employed by the educational partner, Village Earth. The instructors focus on applied knowledge to prepare students to meet today's challenges as project directors, community leaders, grassroots activists, funders, and field workers in community-based organizations and governmental and nongovernmental organizations.

Year the certificate program was created:

2,014

The website URL where information about sustainability in continuing education courses is available :

http://www.learnmore.duke.edu/certificates/sustainable_community

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution engages its student body in community service, as measured by the percentage of students who participate in community service.

Part 2

Institution engages students in community service, as measured by the average hours contributed per full-time student per year.

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

Submission Note:

<http://doinggood.duke.edu/>

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

Number of students engaged in community service:

5,300

Total number of students :

14,600

Does the institution wish to pursue Part 2 of this credit (community service hours)?:

Yes

Total number of student community service hours contributed during a one-year period:

265,000

Does the institution include community service achievements on student transcripts?:

Yes

A brief description of the practice of including community service on transcripts, if applicable:

DukeEngage empowers students to address critical human needs through immersive service, in the process transforming students, advancing the University's educational mission, and providing meaningful assistance to communities in the U.S. and abroad. Students participate in an immersive (minimum of eight weeks) service experience by meeting a community need locally, domestically or internationally. Students are given academic credit for participation in DukeEngage and this is tracked on student transcripts.

Does the institution provide incentives for employees to participate in community service (on- or off-campus)?:

Yes

A brief description of the institution's employee community service initiatives:

Duke's Office of Durham and Regional Affairs gives the Employee Community Service Award annually to a Duke employee who demonstrates an outstanding commitment to service. The award comes with a gift of \$200 to the organization where the employee volunteers.

Every year, the Doing Good in the Neighborhood campaign invites Duke employees to make a difference in Durham through community-based philanthropy. Whether big or small, our combined gifts have a great impact on the schools, neighborhoods and non-profits that benefit from the campaign. Employees can donate through payroll deduction, credit card or check. And Doing Good in the Neighborhood emphasizes donor choice, so you decide how your gift improves quality of life in Durham and the Triangle. You can give to any combination of the following categories: Community Care Fund; Health; Neighborhoods; Schools; Young People; United Way of the Greater Triangle.

A program of Trinity College of Arts & Sciences, Duke Service-Learning supports faculty, staff, students, and community partners involved in service-learning courses, in order to foster a passion for learning and a commitment to making a difference in the world.

The website URL where information about the institution's community service initiatives is available:

<http://civic.duke.edu/>

Community Stakeholder Engagement

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has adopted a framework for community stakeholder engagement in governance, strategy and operations. The framework includes:

1) Policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution’s activities (e.g. planning and development efforts, capital investment projects, and/or other activities and decisions that affect the broader community)

And

2) Established practices to identify and engage relevant community stakeholders, including any vulnerable or underrepresented groups.

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

This credit does not include the engagement of internal campus stakeholders (e.g. students, faculty and staff); internal stakeholder engagement is covered in *PA 3: Governance*.

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

Has the institution adopted a framework for community stakeholder engagement in governance, strategy and operations?:

No

A brief description of the policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution’s activities:

A brief description of how the institution identifies and engages community stakeholders, including any vulnerable or underrepresented groups:

List of identified community stakeholders:

A brief description of successful community stakeholder engagement outcomes from the previous three years:

The website URL where information about the institution's community stakeholder engagement framework and activities is available:

Participation in Public Policy

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution advocates for national, state/provincial, 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 acknowledges institutions that advocate for policy changes and legislation to advance sustainability broadly. Advocacy efforts that are made exclusively to advance the institution's interests or projects may not be counted. For example, advocating for government funding for campus sustainability may be counted, whereas lobbying for the institution to receive funds that have already been appropriated may not.

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

Does the institution advocate for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability?:

Yes

A brief description of how the institution engages in public policy advocacy for sustainability, including the issues, legislation, and ordinances for or against which the institution has advocated:

The Nicholas Institute for Environmental Policy Solutions at Duke University is a nonpartisan institute founded in 2005 to help decision makers in business, industry, government, and the nonprofit sector understand their options, anticipate their choices, and make the most of opportunities for leadership in creating more economically and environmentally sustainable policies. The Institute is led by a small team of economists, scientists, and policy experts who leverage the broad expertise of their faculty colleagues—in arts and sciences, business, engineering, environment, divinity, law, and public policy—to help Duke deliver on its commitment “to put knowledge at the service of society” in the domains of energy, environment, and sustainability policy.

Additionally, many departments at Duke are engaged with the local government in promoting sustainability on campus and in the community. For instance, Parking and Transportation Services works closely with the City of Durham on the implementation of policies that govern and promote the installation of bike lanes on and around campus and is engaged in conversations about the future creation of a regional light rail, which has significant policy implications.

A brief description of other political positions the institution has taken during the previous three years:

A brief description of political donations the institution made during the previous three years (if applicable):

The website URL where information about the institution's advocacy efforts is available:

<http://nicholasinstitute.duke.edu/>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution is a member of the Fair Labor Association (FLA) and/or the Worker Rights Consortium (WRC).

Submission Note:

In March 1998, Duke became the first university in the country to develop and adopt a Code of Conduct for manufacturers of products bearing its trademarks, and which included a blueprint for independent monitoring of working conditions in factories. In addition, in March 1998, Duke became the first university to join a White House task force to foster fair working conditions at factories in the U.S. and worldwide. As an affiliate of the Fair Labor Association and the Workers Rights Consortium, and a supporter of other similar projects, Duke now requires public disclosure of its licensees' factory locations and owners, internal monitoring of all facilities, and independent monitoring of factories that are deemed likely to violate worker rights. Duke is also pleased to support capacity building projects in several countries to help enable grass roots organizations to carry out effective factory monitoring. Please visit

www.workersrights.org

and

www.fairlabor.org

for details about these monitoring processes.

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

Is the institution a member of the Worker Rights Consortium?:

Yes

Is the institution a member of the Fair Labor Association? :

Yes

Has the institution expressed an intention to participate in the WRC's Designated Suppliers Program? :

Yes

The website URL where information about the institution's participation in the WRC, FLA, and/or DSP is available:

<http://www.trademarklicensing.duke.edu/CodeofConduct.html>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's affiliated hospital or health system is a member of the Global Green and Healthy Hospitals Network, the Healthier Hospitals Initiative and/or Practice Greenhealth.

This credit includes hospitals and health systems that are formally affiliated with a higher education institution (sometimes called "university hospitals"). Other types of health care providers (e.g. insurers through which an institution obtains health care for its employees) are not included.

Submission Note:

http://sustainability.duke.edu/health_system/index.html

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

Is the institution a member of the Global Green and Healthy Hospitals Network?:

No

Is the institution a member of the Healthier Hospitals Initiative?:

No

Is the institution a member of Practice Greenhealth?:

No

A brief description of the hospital's sustainability initiatives:

One of the primary principles of the medical profession is "First, do no harm." While this ethic was once restricted to bedside decision-making, it increasingly frames discussions about the environmental and health impacts of the modern medical industry, from supply purchasing to building design.

The MC/HS Architect is an active participant in this emerging dialogue. Most visibly, all new buildings on the medical campus pursue LEED (Leadership in Environmental and Energy Design) certification. The first group of green buildings include: the School of Nursing, MSRB II research building, and the Duke Integrative Medicine. In 2012/2013 the Duke Cancer Center and Trent Semans Center achieved LEED Gold.

Supporting the larger campus's environmental needs, sustainability was included as a core aspect of Duke Medicine's new Framework Plan.

The website URL where information about the hospital's sustainability initiatives is available:

http://architect.duhs.duke.edu/modules/duhsarc_sutn/index.php?id=1

Operations

Air & Climate

This subcategory seeks to recognize institutions that are measuring and reducing their greenhouse gas and air pollutant emissions. Global climate change is having 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 particularly pronounced for low-income communities and countries. In addition, institutions that inventory and take steps to reduce their air pollutant emissions can positively impact the health of the campus community, as well as the health of their local communities and regions.

Credit
Greenhouse Gas Emissions
Outdoor Air Quality

Greenhouse Gas Emissions

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has conducted a publicly available greenhouse gas (GHG) emissions inventory that includes, at minimum, Scope 1 and Scope 2 GHG emissions and may also include Scope 3 GHG emissions. The inventory may be validated internally by campus personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party.

Part 2

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

Part 3

Institution's annual adjusted net Scope 1 and Scope 2 GHG emissions are less than the minimum performance threshold of 0.02 metric tons of carbon dioxide equivalent (MtCO₂e) per gross square foot (0.002 MtCO₂e per gross square metre) of floor area.

Performance for Part 3 of this credit is assessed using EUJ-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

For this credit, the following carbon offsets may be counted:

1. Institution-catalyzed carbon offsets (popularly known as "local offsets")
2. Carbon sequestration due to land that the institution manages specifically for sequestration (as documented in policies, land management plans or the equivalent)
3. Carbon storage from on-site composting
4. Third-party verified purchased carbon offsets

Purchased Renewable Energy Certificates (RECs) that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party may be counted as zero emissions energy for purposes of Scope 2 GHG accounting.

Purchased carbon offsets and RECs that have not been third-party verified do not count.

Institutions that have sold or transferred emissions reductions, e.g. in the form of verified emissions reductions (VERs), may not count those reductions toward this credit.

Submission Note:

Duke's baseline year for the campus Climate Action Plan is 2007. This is the baseline reflected above. Duke's 2024 goal for climate neutrality does not include the health system, it is only the campus, School of Med. and School of Nursing.

Does the institution's GHG emissions inventory include all Scope 1 and Scope 2 GHG emissions?:

Yes

Does the institution's GHG emissions inventory include all Scope 3 GHG emissions from any of the following categories?:

	Yes or No
Business travel	Yes
Commuting	Yes
Purchased goods and services	No
Capital goods	No
Fuel- and energy-related activities not included in Scope 1 or Scope 2	No
Waste generated in operations	Yes

Does the institution's GHG emissions inventory include Scope 3 emissions from other categories?:

No

A brief description of the methodology and/or tool used to complete the GHG emissions inventory:

Duke University uses an internally developed spreadsheet that is based on Clean Air, Cool Planet's spreadsheet. The spreadsheet is streamlined so that it includes only the data we need to calculate Duke's greenhouse gas emissions.

Has the GHG emissions inventory been validated internally by personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party?:

No

A brief description of the internal and/or external verification process:

Within Duke University, there are a number of organizations including the Campus Sustainability Committee (a coalition of faculty, staff, and student leaders around campus), senior leadership, and key faculty experts at Duke to accurately track and verify its emissions.

Scope 1 and Scope 2 GHG emissions::

	Performance Year	Baseline Year
Scope 1 GHG emissions from stationary combustion	<i>62,759 Metric Tons of CO2 Equivalent</i>	<i>98,059 Metric Tons of CO2 Equivalent</i>
Scope 1 GHG emissions from other sources	<i>3,871 Metric Tons of CO2 Equivalent</i>	<i>3,847 Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from purchased electricity	<i>116,451 Metric Tons of CO2 Equivalent</i>	<i>166,135 Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from other sources	<i>0 Metric Tons of CO2 Equivalent</i>	<i>0 Metric Tons of CO2 Equivalent</i>

Figures needed to determine total carbon offsets::

	Performance Year	Baseline Year
Institution-catalyzed carbon offsets generated	<i>0 Metric Tons of CO2 Equivalent</i>	<i>0 Metric Tons of CO2 Equivalent</i>
Carbon sequestration due to land that the institution manages specifically for sequestration	<i>0 Metric Tons of CO2 Equivalent</i>	<i>0 Metric Tons of CO2 Equivalent</i>
Carbon storage from on-site composting	<i>0 Metric Tons of CO2 Equivalent</i>	<i>0 Metric Tons of CO2 Equivalent</i>
Third-party verified carbon offsets purchased	<i>0 Metric Tons of CO2 Equivalent</i>	<i>0 Metric Tons of CO2 Equivalent</i>

A brief description of the institution-catalyzed carbon offsets program:

Duke University established the Duke Carbon Offsets Initiative in 2009 to develop the University’s strategy for meeting its offset goals in a way that provides significant local environmental, economic, and societal co-benefits beyond the benefits of greenhouse gas emission reductions. These goals include generating approximately 180,000 metric tons of CO2e in emission reductions (approximately 55% of the University’s emissions baseline) by 2024 and annually thereafter to meet the University’s climate neutrality commitment, to supply the internal University community with offsets in the near term, and to serve as a resource for other universities and organizations, particularly those in the Southeast, that are interested in generating or purchasing offsets. The Initiative works both within Duke University and outside the University with other institutions and partners to build meaningful offset projects and to facilitate and catalyze the development of offset projects and offset market transactions, particularly those projects and transactions which offer innovative and cost-effective approaches.

The Duke Carbon Offsets Initiative has developed internal carbon programs and protocols, which include swine-based agricultural methane, energy efficiency, renewable energy, and urban forestry offsets. The University has focused on swine waste-to-energy first because of the large number of swine farms in the state and the opportunity they present to eliminate a significant amount of greenhouse gas emissions in ways that will generate renewable energy and solve other major pollution problems, such as nutrient loading and odors. Currently, the Initiative is partnering with Duke Energy, Google Inc., and a North Carolina farm to pilot the first anaerobic-digester based innovative swine waste management system which meets stringent environmental performance standards and produces renewable energy to help Duke Energy meet its renewable energy and energy efficiency portfolio standard commitment for swine-based energy.

The innovative system controls greenhouse gas emissions from a working farm by capturing methane from the animal waste and generating renewable energy by combusting the methane in a microturbine. Use of an innovative system means that in addition to the GHG reductions and renewable energy production, the farm must meet stringent environmental performance standards that require substantial reductions in farm ammonia emissions, pathogens, nutrients, odors and metals and eliminates discharge of waste into surface and groundwater. Research is underway to analyze the system, including a mass balance of nitrogen in the swine waste as it travels through the waste management system and the minimization of the operating time of the jet aeration system, as well as alternatives to jet aeration, to achieve the same environmental results with less electricity and therefore less cost.

The University also has developed an employee-based benefit program that encourages homeowners to increase the energy efficiency of their homes. This program breaks down a number of barriers by providing information on energy efficiency retrofits through home energy audits, identifying high-quality contractors, and offering a low-interest rate loan. This project was piloted starting October 2014 and has provided home energy audits to 30 Duke employees. A majority of employees have increased their home's energy efficiency through simple projects like changing light bulbs to larger retrofits such as re-insulation and duct sealing. Duke's own employees are helping Duke meet its climate neutrality commitment, making it truly a Duke community effort. The University is also collecting data and conducting research on program results in order to identify and share best practices with other colleges and universities.

With respect to forestry-based offset projects, the University is evaluating opportunities to develop projects involving afforestation, avoided conversion and improved forest management. The University works with Trees Across Durham, which is a coalition of local government, non-profits, and citizens whose goal is to increase the canopy cover across the city and county of Durham. Starting this upcoming planting season, the University will be working with and providing resources to Trees Across Durham to plant more trees. Over time, these trees will sequester carbon and reduce pollutants in the air, all while providing opportunities to volunteer and build new partnerships.

A brief description of the carbon sequestration program and reporting protocol used:

A brief description of the composting and carbon storage program:

A brief description of the purchased carbon offsets, including third party verifier(s) and contract timeframes:

Figures needed to determine “Weighted Campus Users”::

	Performance Year	Baseline Year
Number of residential students	5,300	4,636
Number of residential employees	0	0
Number of in-patient hospital beds	957	957
Full-time equivalent enrollment	14,850	12,991
Full-time equivalent of employees	30,472	23,389
Full-time equivalent of distance education students	0	0

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	July 1, 2013	June 30, 2014
Baseline Year	July 1, 2006	June 30, 2007

A brief description of when and why the GHG emissions baseline was adopted:

Duke signed the ACUPCC in 2007 and adopted a Climate Action Plan, developed by the Campus Sustainability Committee, in 2009. Based on analysis during that two year period and certain factors that were required to be included by the ACUPCC, 2007 was adopted as the Duke GHG baseline.

Gross floor area of building space, performance year:

14,941,809 *Square Feet*

Floor area of energy intensive building space, performance year:

	Floor Area
Laboratory space	2,760,754 <i>Square Feet</i>
Healthcare space	0 <i>Square Feet</i>

Other energy intensive space	<i>0 Square Feet</i>
-------------------------------------	----------------------

Scope 3 GHG emissions, performance year::

	Emissions
Business travel	<i>50,230 Metric Tons of CO2 Equivalent</i>
Commuting	<i>33,501 Metric Tons of CO2 Equivalent</i>
Purchased goods and services	<i>0 Metric Tons of CO2 Equivalent</i>
Capital goods	<i>0 Metric Tons of CO2 Equivalent</i>
Fuel- and energy-related activities not included in Scope 1 or Scope 2	<i>0 Metric Tons of CO2 Equivalent</i>
Waste generated in operations	<i>1,495 Metric Tons of CO2 Equivalent</i>
Other categories (please specify below)	<i>0 Metric Tons of CO2 Equivalent</i>

A brief description of the sources included in Scope 3 GHG emissions from "other categories":

A copy of the most recent GHG emissions inventory:

[DukeUniversity_FY2007-2014_GHGEmissions.xlsx](#)

The website URL where the GHG emissions inventory is posted:

http://sustainability.duke.edu/climate_action/index.php

A brief description of the institution’s GHG emissions reduction initiatives, including efforts made during the previous three years:

Reduction measures such as eliminating coal use on campus, energy conservation measures, installing solar PV, providing direct financial incentives for alternative transportation and improving regional transportation are several of the actions suggested in the CAP. In addition to recommendations about energy and transportation, the CAP also makes recommendations for carbon offsets, communications and education.

Duke has achieved an 28% reduction in University emissions as of 2013, based on a 2007 baseline. This emissions reduction can be partially attributed to energy conservation measures and an elimination of coal use on campus, as well as the implementation of other Climate Action Plan measures.

Energy:

- Eliminated coal use on campus in May 2011
- Through efficiency upgrades to the steam system and elimination of coal, Duke has reduced emission from campus steam plants by 36% since 2007
- Achieved 30% reduction in energy emissions in 2013 compared to 2007 baseline

Transportation:

- Hired Transportation Demand Management coordinator
- Launched new Bull City Connector bus
- Replaced 10 campus buses with two hybrid articulated buses and 6 ultra-low-sulfur diesel buses in fall 2011
- GoPass offers fare-free access to regional public transportation for students and low cost access for employees

Offsets

- Swine waste to energy project on local farm operational May 2011
- Duke-specific offsets available for internal purchase for individuals, departments and events
- Piloted home energy efficiency project in summer 2012

Communications:

- Behavior-change competitions such as the Green Devil Smackdown
- Sustainability signs installed in dorms and University academic buildings
- Over 8,000 subscriptions to Sustainable Duke listserv

Education:

- Annual faculty workshops on integrating sustainability into curriculum
- Additional factors, such as economic conditions and emissions content of purchased electricity, have also impacted the University's emissions. Some of the more recent actions are not yet reflected in emissions inventory numbers.

Outdoor Air Quality

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has adopted policies or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources. Policies and/or guidelines may include, but are not limited to, prohibiting vehicle idling, restrictions on the use of powered lawn care equipment, and other strategies for minimizing mobile emissions.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for Part 1 of this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution has completed an inventory of significant air emissions from stationary sources on campus. Significant emissions include nitrogen oxides (NO_x), sulfur oxides (SO_x), and other standard categories of air emissions identified in environmental permits held by the institution, international conventions, and/or national laws or regulations.

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

Does the institution have policies and/or guidelines in place to improve outdoor air quality and minimize air pollutant emissions from mobile sources?:

No

A brief description of the policies and/or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources:

Has the institution completed an inventory of significant air emissions from stationary sources on campus?:

Yes

A brief description of the methodology(ies) the institution used to complete its air emissions inventory:

The original survey was conducted in the late 1990s. Currently, OESO Environmental Programs is contacted by the Duke Project Manager whenever a stationary source is added on campus. OESO will evaluate the source to determine if it needs to be added to our Title V permit as an insignificant or permitted emission source.

Weight of the following categories of air emissions from stationary sources::

	Weight of Emissions
Nitrogen oxides (NOx)	<i>73.60 Tons</i>
Sulfur oxides (SOx)	<i>0.50 Tons</i>
Carbon monoxide (CO)	<i>74.20 Tons</i>
Particulate matter (PM)	<i>7.10 Tons</i>
Ozone (O3)	---
Lead (Pb)	<i>0.00 Tons</i>
Hazardous air pollutants (HAPs)	<i>4.15 Tons</i>
Ozone-depleting compounds (ODCs)	---
Other standard categories of air emissions identified in permits and/or regulations	---

A brief description of the institution’s initiatives to minimize air pollutant emissions from stationary sources, including efforts made during the previous three years:

Duke recently converted from coal burning boilers to natural gas boilers at the steam plant which significantly reduced the amount of air emissions. Duke has also reduced the number of testing and maintenance emergency generators run hours for each month.

The website URL where information about the institution’s outdoor air quality policies, guidelines or inventory is available:

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

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution owns and operates buildings that are:

1) Certified under a green building rating system for existing buildings, e.g. LEED® for Existing Buildings: Operations & Maintenance (O&M)

And/or

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

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

Submission Note:

Smith Warehouse - LEED EB

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

Does the institution have any building space certified under the following green building rating systems for existing buildings?:

	Yes or No
LEED for Existing Buildings or another 4-tier rating system used by an Established Green Building Council (GBC)	Yes

The DGNB system, Green Star Performance, or another 3-tier GBC rating system	No
BREEAM-In Use, CASBEE for Existing Building, or another 5-tier GBC rating system	No
Other non-GBC rating systems (e.g. BOMA BEST, Green Globes)	No

A brief description of the green building rating system(s) used and/or a list or sample of certified buildings and ratings:

LEED - EB

Total floor area of eligible building space (operations and maintenance):

18,502,474 *Square Feet*

Floor area of building space that is certified at each level under a 4-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	48,000 <i>Square Feet</i>
3rd Highest Level (e.g. LEED Silver)	0 <i>Square Feet</i>
2nd Highest Level (e.g. LEED Gold)	0 <i>Square Feet</i>
Highest Achievable Level (e.g. LEED Platinum)	0 <i>Square Feet</i>

Floor area of building space that is certified at each level under a 3-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---
Mid-Level	---
Highest Achievable Level	---

Floor area of building space that is certified at each level under a 5-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---
4th Highest Level	---
Mid-Level	---
2nd Highest Level	---
Highest Achievable Level	---

Floor area of building space that is certified at any level under other green building rating systems for existing buildings:

Floor area of building space that is maintained in accordance with formally adopted sustainable building operations and maintenance guidelines or policies, but NOT certified:

A copy of the sustainable building operations and maintenance guidelines or policies:

The date the guidelines or policies were formally adopted:

A brief description of the sustainable building operations and maintenance program and/or a list or sample of buildings covered:

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

While Duke does not certify buildings under LEED for Existing Buildings: O&M, several institutional policies and practices address these issues to maintain all buildings in accordance with sustainable building operational principles. These include –

- Duke Temperature and Scheduling policy -

- Sustainable Grounds Management -

http://sustainability.duke.edu/campus_initiatives/land/index.html

- Environmentally Preferable Purchasing Policy -

http://sustainability.duke.edu/campus_initiatives/purchasing/index.html

- Indoor Air Quality Guidelines -

<http://www.safety.duke.edu/OHS/IAQ.htm>

- Sustainable Water Management -

http://sustainability.duke.edu/campus_initiatives/water/index.html

The website URL where information about the institution's certified buildings and/or sustainable operations and maintenance guidelines or policies is available:

http://sustainability.duke.edu/campus_initiatives/index.html

Building Design and Construction

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

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

1) Certified under a green building rating system for new construction and major renovations (e.g. the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, LEED for Healthcare, and/or LEED for Core and Shell Green Building Rating Systems)

2) Certified Living under the Living Building Challenge (LBC)

And/or

3) Designed and built in accordance with formally adopted green building guidelines and policies that cover all of the following topics:

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

Submission Note:

Duke has more than 5 million GSF of LEED buildings on campus
-29 LEED™ certified buildings totaling over 3.8 million sq ft
-9 Registered LEED™ buildings totaling over 1.1 million sq ft

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

Does the institution have any building space certified under the following green building rating systems for new construction and major renovations?:

Yes or No

LEED or another 4-tier rating system used by an Established Green Building Council (GBC)	Yes
The DGNB system, Green Star, or another 3-tier GBC rating system	No
BREEAM, CASBEE, or another 5-tier GBC rating system	No
The Living Building Challenge	No
Other non-GBC rating systems (e.g. BOMA BEST, Green Globes)	No

A brief description of the green building rating system(s) used and/or a list of certified buildings and ratings:

All buildings built between 2009 and 2014 earned a minimum of LEED certification, most earned Silver or Gold certification.

- Smith Warehouse Renovation - Silver - 140,000 sq ft
- Sands Parking Garage - Certified - 690,000 sq ft
- East Campus Steam Plant - Gold - 7,000 sq ft
- Lemur Center - Silver - 18,000 sq ft
- Chilled Water Plant 2 - Gold - 43,943 sq ft
- Multipurpose Field House - Silver - 89,000 sq ft
- Keohane K-4 Residence Hall - Silver - 68,000 sq ft
- Cancer Center - Gold - 259,906 sq ft
- Trent Semans Center for Health Education - Gold - 108,462 sq ft
- Baldwin Auditorium - Silver - 38,200 sq ft
- Duke Medical Pavilion - Gold - 608,584 sq ft

As of Nov. 2014, Duke has 9 additional buildings that are registered for LEED and are going through the certification process.

Total floor area of eligible building space (design and construction):

2,071,095 *Square Feet*

Floor area of building space that is certified at each level under a 4-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	690,000 <i>Square Feet</i>
3rd Highest Level (e.g. LEED Silver)	353,200 <i>Square Feet</i>

2nd Highest Level (e.g. LEED Gold)	<i>1,027,895 Square Feet</i>
Highest Achievable Level (e.g. LEED Platinum)	<i>0 Square Feet</i>

Floor area of building space that is certified at each level under a 3-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	<i>0 Square Feet</i>
Mid-Level	<i>0 Square Feet</i>
Highest Achievable Level	<i>0 Square Feet</i>

Floor area of building space that is certified at each level under a 5-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	<i>0 Square Feet</i>
4th Highest Level	<i>0 Square Feet</i>
Mid-Level	<i>0 Square Feet</i>
2nd Highest Level	<i>0 Square Feet</i>
Highest Achievable Level	<i>0 Square Feet</i>

Floor area of building space certified Living under the Living Building Challenge:

0 Square Feet

Floor area of building space that is certified at any level under other green building rating systems for new construction and major renovations:

0 Square Feet

Floor area of building space that was designed and constructed in accordance with green building policies or guidelines but NOT certified:

0 Square Feet

A copy of the guidelines or policies :

The date the guidelines or policies were adopted:

A brief description of the green building guidelines or policies and/or a list or sample of buildings covered:

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

The website URL where information about the institution's certified buildings and/or green building design and construction guidelines or policies is available:

http://sustainability.duke.edu/campus_initiatives/buildings/index.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has an indoor air quality (IAQ) management program that includes regular auditing or monitoring, a mechanism for occupants to register complaints, and action plans to implement any corrective measures required in response to audits, monitoring or complaints.

Policies and plans adopted by entities of which the institution is part (e.g. government or 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

Floor area of building space covered by an indoor air quality (IAQ) management program that meets the criteria for this credit:

18,502,474 *Square Feet*

Gross floor area of building space:

18,502,474 *Square Feet*

A brief description of the institution's indoor air quality program(s):

Duke's Occupation & Environmental Safety Office, Division of Occupational Hygiene and Safety is responsible for monitoring and responding to indoor air quality concerns across campus and the health system. This office coordinates the programs for evaluating, controlling, or eliminating both health and safety hazards in the workplace. They respond to IAQ concerns and mobilize to address emergent events that may result in a decrement in air quality such as building flooding, construction activities, etc.

Excerpt from OESO Standard Operating Procedures -

Phase 1 investigations are the initial step in evaluating whether a reported IAQ concern is significantly affecting the health of the occupants in the area. In the majority of cases, IAQ evaluations will be resolved in this phase.

Process

Step 1 – Initiation: When contacted about an IAQ problem, the complainant is referred to

<http://www.safety.duke.edu/OHS/IAQ.htm>

for self help. This page links the complainant to information and other resources, including the appropriate maintenance dept. In the case that self-help does not work or is not considered suitable, the complainant may choose to request an investigation through the link to [Campus Sustainability Data Collector | AASHE](#)

TMS.

Step 2 – Scheduling of investigation. Upon receipt of the TMS work request, OESO will assign staff (and copy the appropriate territory person) to conduct the initial investigation. The assigned staff member will schedule the investigation directly with the area supervisor.

Step 3 – Investigation – the surveyor will visit the area, conduct an initial investigation consisting of basic measurements and observations to ascertain the cause of concern. OESO's investigation procedure provides guidance on what to look for and also serves as documentation of the visit.

The website URL where information about the institution's indoor air quality program(s) is available:

<http://www.safety.duke.edu/OHS/IAQ.htm>

Dining Services

This subcategory seeks to recognize institutions that are supporting a sustainable food system. Modern industrial food production often has deleterious environmental and social impacts. Pesticides and fertilizers used in agriculture can contaminate ground and surface water and soil, which can in turn have potentially dangerous impacts on wildlife and human health. The production of animal-derived foods often subjects animals to inhumane treatment and animal products have a higher per-calorie environmental intensity than plant-based foods. Additionally, farm workers are often directly exposed to dangerous pesticides, subjected to harsh working conditions, and paid substandard wages. Furthermore, food is often transported long distance to institutions, producing greenhouse gas emissions and other pollution, as well as undermining the resiliency of local communities.

Institutions can use their purchasing power to require transparency from their distributors and find out where the food comes from, how it was produced, and how far it traveled. Institutions can use their food purchases to support their local economies; encourage safe, environmentally-friendly and humane farming methods; and help eliminate unsafe working conditions and alleviate poverty for farmers. These actions help reduce environmental impacts, preserve regional farmland, improve local food security, and support fair and resilient food systems.

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
Low Impact Dining

Food and Beverage Purchasing

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution's dining services purchase food and beverages that meet at least one of the following criteria:

- Local and community-based

And/or

- Third party verified to be ecologically sound, fair and/or humane

Food and beverage purchases that meet both criteria listed above (e.g. local community-based products that are Certified Organic) should not be double-counted.

Local community- based products:

- Are sourced from local community-based producers (directly or through distributors)
- Contain raw ingredients (excluding water) that are third party verified and/or locally harvested and produced (e.g. bread made with Organic flour or local honey) and
- Exclude products from Concentrated Animal Feeding Operations (CAFOs), products that have minimal nutritional value (e.g. soda, chewing gum, candies made predominantly from sweeteners), and products from producers that have been convicted of one or more labor law violations within the previous three years

Products that are not local and community-based must be third party verified to count. Recognized third party standards and certifications for food and beverages are outlined in the [STARS Technical Manual](#). Institutions located outside the U.S. and Canada may use additional third party certifications to identify ecologically sound, fair and humane products, provided the certifications are reported in "Notes about this submission".

Part 1 of 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 services, and concessions are excluded from Part 1.

Part 2

Institution's on-site franchises, convenience stores, vending services, and/or concessions purchase food and beverages that are third party verified and/or locally sourced (i.e. meet the criteria outlined in Part 1).

Submission Note:

It should be noted that our contractor, Bon Appetit, tracks local sourcing from within 150 miles rather than the 250 mile criteria of this report.

The Green Seal Standard for Restaurants and Food Services certification is in progress at this time.

Duke Dining new sustainable Procurement guidelines will be on our site starting fall semester 2015.

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

Percentage of dining services food and beverage expenditures that are local and community-based and/or third party verified:

13

A copy of an inventory, list or sample of sustainable food and beverage purchases:

[Table for OP6 Document .docx](#)

An inventory, list or sample of sustainable food and beverage purchases:

Does the institution wish to pursue Part 2 of this credit (food and beverage expenditures for on-site franchises, convenience stores, vending services, or concessions)?:

No

Percentage of on-site franchise, convenience store, vending services, and concessions food and beverage purchases that are local and community-based and/or third party verified:

A copy of an inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:

An inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:

See the following link for how Au Bon Pain on Duke's campus is engaged in sustainable sourcing.

https://aubonpain.com/sites/default/files/ABP_Sourcing_Sustainability_Overview.pdf

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

[Campus Sustainability Data Collector | AASHE](#)

Duke Dining Services is currently working with different local farms/vendors in regards to local and sustainable products. Duke Dining is currently developing a sustainable procurement guide that will be completed over the next month that will address not only local purchasing but also most importantly healthy options as well.

Duke has a strong reputation for high quality dining services, which includes a commitment to sustainability. Many campus eateries strive to incorporate local and organic ingredients and all campus eateries offer vegetarian options. The Performance Assessment for Culinary Excellence (PACE) rating system developed by Duke Dining Services rewards eateries for environmentally-preferable characteristics.

Duke's main food provider, Bon Appetit, is a leader in sustainability and currently purchases 15 percent local and organic food at Duke. Their "Circle of Responsibility" program provides educational signage for consumers in the eateries on campus about the environmental, community and health impacts of different food choices. An estimated 90 percent of pre-consumer and post-consumer waste is composted in Bon Appetit facilities at Duke.

Duke has a strong reputation for high quality dining services, which includes a commitment to sustainability. Many campus eateries strive to incorporate local and organic ingredients and all campus eateries offer vegetarian options. The Performance Assessment for Culinary Excellence (PACE) rating system developed by Duke Dining Services rewards eateries for environmentally-preferable characteristics.
Green Dining Award

Each year since 2010, students in Sustainable Duke's Students for Sustainable Living program have selected winning eateries to be recognized with a Green Dining Award at Duke. Learn more about the Green Dining Award and view recent winners.

http://sustainability.duke.edu/campus_initiatives/dining/index.html

A brief description of the methodology used to track/inventory sustainable food and beverage purchases:

We run monthly reports to calculate percentage of what has been purchased versus what the benchmark is. Currently we are working on a baseline study to measure our current situation while researching our missed opportunities to set new goals.

Total annual food and beverage expenditures:

Which of the following food service providers are present on campus and included in the total food and beverage expenditure figures?:

	Present?	Included?
Dining operations and catering services operated by the institution	No	No
Dining operations and catering services operated by a contractor	No	No
Franchises	No	No

Convenience stores	No	No
Vending services	No	No
Concessions	No	No

Has the institution achieved the following?:

	Yes or No
Fair Trade Campus, College or University status	Yes
Certification under the Green Seal Standard for Restaurants and Food Services (GS-46)	No
Marine Stewardship Council (MSC) certification	No
Signatory of the Real Food Campus Commitment (U.S.)	No

A brief description of other sustainable restaurant and food service standards that the institution's dining services operations are certified under:

Bon Appetit, which is the campus supplier, has committed to purchasing 25% of its meat and eggs from producers certified as humane by independent animal welfare groups, which will monitor whether farmers allow animals to engage in natural behavior. This trend is set to continue until 2017.

<http://www.dukechronicle.com/articles/2012/03/20/bon-appetit-commits-humane-food-suppliers#.VO5ifN4ww9w>

ifN4ww9w

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

<http://studentaffairs.duke.edu/dining>

Low Impact Dining

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Conventionally produced animal products comprise less than 30 percent of the institution's total dining services food purchases.

Conventionally produced animal products include all food products that contain animal derived (i.e. meat, fish, egg, dairy) ingredients that have not been verified to be sustainably produced. Sustainably produced animal products have been either:

- Third party verified to be ecologically sound and/or humane (see *OP 6: Food and Beverage Purchasing*)

Or

- Verified by the institution to be both ecologically sound and humane (e.g. "Pasture Raised", "Grass Fed" or "Humanely Raised") through a relationship with a local producer

Part 2

Institution:

- Offers diverse, complete-protein vegan options at all meals in at least one dining facility on campus

And

- Provides labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items

This credit includes on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor. On-site franchises, convenience stores, vending machines, and concessions should be excluded to the extent feasible.

Submission Note:

Additionally, Duke dining services is currently producing a vegan video with our core locations.

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

Percentage of total dining services food purchases comprised of conventionally produced animal products:

13

A brief description of the methodology used to track/inventory expenditures on animal products:

We pull monthly reports to see what is being utilized and see where we can purchase locally.

Does the institution offer diverse, complete-protein vegan dining options at all meals in at least one dining facility on campus?:

Yes

Does the institution provide labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items?:

Yes

Are the vegan options accessible to all members of the campus community?:

Yes

A brief description of the vegan dining program, including availability, sample menus, signage and any promotional activities (e.g. “Meatless Mondays”):

Duke dining services provides vegan options at all meals daily and these options are labeled with a special VEGAN sticker on all menu signs. Additionally, we have Meatless Mondays at Penn Pavilion and the Marketplace. The Meatless Monday specials are promoted weekly via our website and social media.

<http://studentaffairs.duke.edu/sites/default/files/u1379/MM2.pdf>

Duke University's two main dining locations, the Great Hall and Marketplace, each have specific stations designated for vegan/vegetarian entrees and sides. For example, the soup selections will always include a minimum of one vegetarian and/or vegan option.

A brief description of other efforts the institution has made to reduce the impact of its animal-derived food purchases:

We are offering many new seafood, vegetarian and vegan options to the students and have expanded our salad bar options to include healthy protein rich vegan and whole grain selections.

The website URL where information about where information about the vegan dining program is available:

<http://dining.duke.edu/alternatives/vegetarian.php>

Annual dining services expenditures on food:

Annual dining services expenditures on conventionally produced animal products:

Annual dining services expenditures on sustainably produced animal products:

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 climate change. Global climate change is having 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, ocean acidification, and spread of diseases. The impacts are particularly pronounced for vulnerable and poor communities and countries. In addition to causing global climate change, 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 projects flood habitats and disrupt fish migration and can involve the relocation of entire communities.

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

Building Energy Consumption

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has reduced its total building energy consumption per gross square foot/metre of floor area compared to a baseline.

Part 2

Institution's annual building energy consumption is less than the minimum performance threshold of 28 Btu per gross square foot (2.6 Btu per gross square metre) of floor area per degree day.

Performance for Part 2 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

Submission Note:

Using total GSF - Baseline was 2007

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

Total building energy consumption, all sources (transportation fuels excluded):

	Performance Year	Baseline Year
Total building energy consumption	3,180,336 <i>MMBtu</i>	3,072,945 <i>MMBtu</i>

Purchased electricity and steam:

	Performance Year	Baseline Year
Grid-purchased electricity	1,541,095 <i>MMBtu</i>	1,595,142 <i>MMBtu</i>
District steam/hot water	1,639,241 <i>MMBtu</i>	1,477,803 <i>MMBtu</i>

Gross floor area of building space::

	Performance Year	Baseline Year
Gross floor area	18,502,474 <i>Gross Square Feet</i>	15,189,461 <i>Gross Square Feet</i>

Floor area of energy intensive space, performance year::

	Floor Area
Laboratory space	1,322,274 <i>Square Feet</i>
Healthcare space	3,560,665 <i>Square Feet</i>
Other energy intensive space	

Degree days, performance year (base 65 °F / 18 °C)::

	Degree Days
Heating degree days	3,707
Cooling degree days	1,477

Source-site ratios::

	Source-Site Ratio (1.0 - 5.0; see help icon above)
Grid-purchased electricity	3.14
District steam/hot water	1.43

Start and end dates of the performance year and baseline year (or 3-year periods)::

	Start Date	End Date
Performance Year	July 1, 2013	June 30, 2014
Baseline Year	July 1, 2006	June 30, 2007

A brief description of when and why the building energy consumption baseline was adopted:

A brief description of any building temperature standards employed by the institution:

Building control systems are used to regulate temperatures based on occupancy hours are used in 50% of buildings on campus. Where possible, temperatures in university buildings that are on the central control system will be set at approximately 70 degrees in the winter and 76 degrees in the summer. Those temperatures will be used during regular business hours of 7 a.m. to 7 p.m. Monday to Friday. Off-hour temperatures are based on building occupancy typically of 7 p.m. to 7 a.m. and weekends will be set as low as 60 degrees and up to 80 degrees. Actual room temperatures can be within two degrees (plus or minus) of the new set points.

A brief description of any light emitting diode (LED) lighting employed by the institution:

Duke is prioritizing the use of LED lights throughout campus. LED lights are currently utilized in three campus parking garages that have been retrofit. Any new garage will have LEDs as a standard. New construction projects at Duke now also typically include LED troffer fixtures. Furthermore, Duke has retrofit 1500 exterior lighting fixtures on campus to LED.

As of Oct. 2014, Duke had the first NCAA Division I outdoor college sports venue to be lit with LED lighting. A set of 56 LED lamps replaced 96 1000-watt metal halide fixtures currently installed and yield a projected energy savings of more than 60 percent while significantly increasing on-field illumination.

Duke has over 4500 LED lamps on campus.

A brief description of any occupancy and/or vacancy sensors employed by the institution:

Both occupancy and vacancy sensors are used on campus. Occupancy sensors sense motion in a space and automatically turn lights on and off while vacancy sensors require an occupant to turn lights on and auto turns lights off.

A brief description of any passive solar heating employed by the institution:

A brief description of any ground-source heat pumps employed by the institution:

A brief description of any cogeneration technologies employed by the institution:

A brief description of any building recommissioning or retrofit program employed by the institution:

Duke has performed a detailed assessments of three buildings totaling approximately 670,000 GSF. Out of those assessments, we have completed the majority of commissioning activities in one of those buildings, and will proceed with the next phase in Q2 of 2015. We are currently in the planning stages of a 3-5 year existing building commissioning program, which will develop a comprehensive method of [Campus Sustainability Data Collector](#) | [AASHE](#)

identifying and funding corrective actions as they relate to space programming, building envelope, mechanical/electrical/plumbing systems, and indoor environmental quality.

A brief description of any energy metering and management systems employed by the institution:

A Siemens Apogee System is used to control and monitor a majority of the buildings on campus. The system monitors the HVAC and other critical systems in a building and can be accessed anywhere around campus. Alarms are sent out to individuals to alert them of building issues.

Additionally, a new utility management database software was recently installed. The new database software tracks utility use in all buildings on campus. Duke also uses the Schneider Electric Struxure Ware platform for electrical metering and monitoring. In conjunction with this software platform, we are upgrading building metering technology to provide 15 min interval data.

A brief description of the institution's program to replace energy-consuming appliances, equipment and systems with high efficiency alternatives:

A brief description of any energy-efficient landscape design initiatives employed by the institution:

A brief description of any vending machine sensors, lightless machines, or LED-lit machines employed by the institution:

A brief description of other energy conservation and efficiency initiatives employed by the institution:

Environment Hall,

Duke Environment Hall, the 70,000-square-foot new home of Duke University's Nicholas School of the Environment, opened on April 10, 2014.

The five-story glass-and-concrete building, located on Circuit Drive on Duke's West Campus, incorporates start-of-the-art green features and technologies inside and out. It has been designed to meet or exceed the criteria for LEED Green Building platinum certification, the highest level of sustainability.

The hall houses five classrooms, a 105-seat auditorium, 45 private offices, 72 open office spaces, a 32-seat computer lab, an outdoor courtyard and an environmental art gallery, as well as conference rooms, shared workrooms and common.

Green features range from rooftop solar panels and innovative climate control and water systems, to special windows that moderate light and heat, to an organic orchard and sustainably designed landscaping.

The website URL where information about the institution's energy conservation and efficiency initiatives is available:

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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.

Since this credit is intended to recognize institutions that are actively supporting the development and use 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.

The following renewable systems are eligible for this credit:

- Concentrated solar thermal
- Geothermal systems that generate electricity
- Low-impact hydroelectric power
- Solar photovoltaic
- Wave and tidal power

- Wind

Biofuels from the following sources are eligible:

- Agricultural crops
- Agricultural waste
- Animal waste
- Landfill gas
- Untreated wood waste
- Other organic waste

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, as well as improved efficiencies achieved through using cogeneration technologies, are captured by *OP 1: Greenhouse Gas Emissions* and *OP 8: Building Energy Consumption*.

Transportation fuels, which are covered by *OP 1: Greenhouse Gas Emissions* and *OP 18: Campus Fleet*, are not included in this credit.

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

Clean and renewable energy from the following sources::

	Performance Year
Option 1: 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 on-site	0 MMBtu
Option 3: 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: Purchased third-party certified RECs and similar renewable energy products (including renewable electricity purchased through a certified green power purchasing option)	0 MMBtu

Total energy consumption, performance year:

3,180,336 MMBtu

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

There are three on-campus locations with demonstration-scale renewable electricity generating devices. The Marguerite Kent Repass Ocean Conservation Center at the Duke University Marine Lab uses geothermal pumps for heating and cooling, solar panels for hot water, and photovoltaic rooftop panels to convert sunlight into electricity. The Home Depot SMART House uses solar panels for hot water and photovoltaic as well.

Duke Environment Hall, the 70,000-square-foot new home of Duke University's Nicholas School of the Environment, opened on April 10, 2014. The five-story glass-and-concrete building, located on Circuit Drive on Duke's West Campus, incorporates start-of-the-art green features and technologies inside and out. It has been designed to meet or exceed the criteria for LEED Green Building platinum certification, the highest level of sustainability. Solar PV provides up to 9% of the buildings energy needs.

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

<http://nicholas.duke.edu/about/environmenthall>

<http://today.duke.edu/2011/09/bryancentersolarpanels>

In 2011, Duke installed 45 solar-thermal panels on the roof of the Bryan Center Student center that provide 30-40% of the hot water needs of the building.

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

A brief description of the RECs and/or similar renewable energy products:

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

http://sustainability.duke.edu/campus_initiatives/energy/utilities.html

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
Landscape Management
Biodiversity

Landscape Management

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's grounds include areas that are managed at one or more of the following levels:

- 1) Managed in accordance with an Integrated Pest Management (IPM) Plan
- 2) Managed in accordance with a sustainable landscape management program

And/or

- 3) Organic, certified and/or protected

The level at which an area of grounds is managed may be determined as outlined in the table below:

Management Level	Standards and/or Certifications Required
1) IPM Plan	IPM plan calls for: <ul style="list-style-type: none">• Using least-toxic chemical pesticides,• Minimum use of chemicals, and• Use of chemicals only in targeted locations and only for targeted species

<p>2) Sustainable Landscape Management Program</p>	<p>The program includes formally adopted guidelines, policies and/or practices that cover all of the following:</p> <ul style="list-style-type: none"> • Integrated pest management (see above) • Plant stewardship - protecting and using existing vegetation (e.g. through the use of a tree care plan), using native and ecologically appropriate plants, and controlling and managing invasive species • Soil stewardship - organic soils management practices that restore and/or maintain a natural nutrient cycle and limit the use of inorganic fertilizers and chemicals • Use of environmentally preferable materials - utilizing reused, recycled and local and sustainably produced landscape materials • Hydrology and water use - restoring and/or maintaining the integrity of the natural hydrology by promoting water infiltration, minimizing or eliminating the use of potable water for irrigation, and protecting/restoring riparian, wetland, and shoreline habitats and lost streams • Materials management and waste minimization - composting and/or mulching waste from groundskeeping, including grass trimmings • Snow and ice management (if applicable) - implementing technologies or strategies to reduce the environmental impacts of snow and ice removal
<p>3) Organic, Certified and/or Protected</p>	<p>Protected areas and land that is:</p> <ul style="list-style-type: none"> • Maintained in accordance with an organic land care standard or sustainable landscape management program that has eliminated the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides in favor of ecologically preferable materials • Certified Organic • Certified under the Forest Stewardship Council (FSC) Forest Management standard • Certified under the Sustainable Sites Initiative™ (SITES™) and/or • Managed specifically for carbon sequestration (as documented in policies, land management plans or the equivalent)

Land that meets multiple criteria should not be double-counted. An area of grounds that does not meet the standards specified for a particular management level should be reported at the next appropriate level for which it does meet the standards. For example, a landscape management program that includes an IPM plan and meets some, but not all, of the other standards listed for a sustainable landscape management plan should be reported at level 1 (IPM Plan).

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

Figures required to calculate the total area of managed grounds::

	Area
Total campus area	<i>1,074 Acres</i>
Footprint of the institution's buildings	<i>107 Acres</i>
Area of undeveloped land, excluding any protected areas	<i>367 Acres</i>

Area of managed grounds that is::

	Area
Managed in accordance with an Integrated Pest Management (IPM) Plan	<i>600 Acres</i>
Managed in accordance with a sustainable landscape management program that includes an IPM plan and otherwise meets the criteria outlined	<i>0 Acres</i>
Managed organically, third party certified and/or protected	<i>0 Acres</i>

A copy of the IPM plan:

[IPM Duke Landscape Services.docx](#)

The IPM plan :

All Duke University Grounds staff in supervisory roles have their North Carolina Pest Management Association licenses. Furthermore, there is a certified Arborist on staff. These numbers suggest that Duke University Grounds staff is dedicated to using the most sustainable practices. All of the grounds are monitored and tended to in a way to support the health of the plants. Planting techniques, compost, and native species are all used to deter pests. In general, the plants on campus have a high threshold for insects, and sprays are only used as a last resort in a highly targeted and controlled manner. The acreage that requires more rigorous pest management are the 20 acres of athletic fields.

The entire 55 acre Duke Gardens and horticultural facilities are managed with IPM strategies (

<https://gardens.duke.edu/>

). The threshold for pest and disease is relatively high depending on the location in the garden and type of pest. The goal is to eventually manage the garden organically. The hybrid tea rose collection (which requires weekly spraying of fungicide) is being replaced with roses that require no spraying or other chemical treatment to keep them healthy, all the garden's green/woody waste will soon be composted

and or mulched and reused in the garden. The new Charlotte Brody Discovery Garden within Duke Gardens has been awarded 2 stars under the Sustainable SITES Initiative (SITES), a new sustainable landscaping certification program. The Discovery Garden is only 1 of 15 projects that has received SITES certification nationwide. In order to achieve SITES certification, Duke Gardens staff, who maintain the Discovery Garden, have to follow a set of stringent and comprehensive integrated pest management guidelines. The Discovery Garden, therefore, is an exemplary garden that showcases both comprehensive integrated pest management practices and sustainable landscaping.

A brief summary of the institution's approach to sustainable landscape management:

Duke focuses on establishing low maintenance, healthy landscapes through appropriate plant species selection, targeted use of chemicals, and reliance on cultural practices to create the aesthetic desired.

A brief description of how the institution protects and uses existing vegetation, uses native and ecologically appropriate plants, and controls and manages invasive species:

Duke has a vigorous tree protection program, which helps protect both trees and soil during construction. Natural landscapes on campus are being studied for their ecological and social benefit and decisions will be made as to the best way to manage these large tracts of land. We do not plant any federally or state listed noxious or invasive plants, and avoid planting species which have a high likelihood of becoming invasive in the future. We focus on native plants whenever possible, and put a premium on biodiversity in our landscape renovation. In addition to avoiding the introduction of invasive species, we are also establishing an invasive species removal protocol.

A special emphasis is placed on the use of native plant species in landscaping at Duke University. New landscaping projects always involve the installation of native plants. Native plants and their associated ecosystems are featured in the 7 acre Blomquist Garden of Native Plants. Over 1,000 species of flora native to the southeastern US are on display and are conserved by two full-time gardeners. The Duke Gardens Facility is a member of the NC Native Plant Society and the staff frequently participates in plant rescue events across the state. Native plants are also frequently used in other sections of the gardens and receive strong emphasis in new garden projects. The Duke Forest hosts 900 species of plants and supports a wide cross-section of the woodlands found in the upper coastal plain and lower piedmont of the Southeast.

A brief description of the institution's landscape materials management and waste minimization policies and practices:

Duke University Grounds has a commitment to reuse landscape waste. We strive to minimize the use of chemicals and other products on campus. Most trees and woody vegetation that are cut down are reused as woodchip mulch. Sometimes wood is reused for lumber projects. Leaves that fall on campus are mowed and reapplied on mulch beds to improve soil quality. When feasible, some landscape waste is composted off site in a location in Duke Forest.

A brief description of the institution's organic soils management practices:

We use slow release fertilizers on an as-needed basis, and mulch leaves into our beds for nutrient cycling. We use wood chips from our tree management to enhance soils on campus.

A brief description of the institution's use of environmentally preferable materials in landscaping and grounds management:

We strive to use the mildest chemical possible for the specific application. We utilize undyed- natural materials, recycling wood chips. Our specified soil includes compost made by a local company who partners with the campus to compost foods.

A brief description of how the institution restores and/or maintains the integrity of the natural hydrology of the campus:

Duke is working on a Stormwater retention pond which allows for the cleaning of Stormwater runoff while reducing our dependency on potable water for air conditioning. As part of this project we restored thousands of feet of streams on campus. We also have a large, constructed wetland study site which helps filter the runoff from our athletic fields and serves as both a recreation and educational destination.

A brief description of how the institution reduces the environmental impacts of snow and ice removal (if applicable):

The Facilities Management Department prioritizes chemical-free snow and ice removal tactics. We try to target applications of salt and sand. As possible, we use CMA, which is an expensive but very environmentally friendly product for controlling ice. Salt diluted with sand is used as a last resort on walkways that are especially dangerous like stairs and near the hospital facility. All efforts need to be compatible with the surrounding landscape. Sweeper machines are used to remove ice.

A brief description of any certified and/or protected areas:

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

Yes

The website URL where information about the institution's sustainable landscape management programs and practices is available:

<http://www.fmd.duke.edu/grounds/Sustainability.php>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

The institution conducts one or both of the following:

- An assessment to identify endangered and vulnerable species (including migratory species) with habitats on institution-owned or -managed land

And/or

- An assessment to identify environmentally sensitive areas on institution-owned or -managed land

The institution has plans or programs in place to protect or positively affect the species, habitats and/or environmentally sensitive areas identified.

Assessments conducted and programs adopted by other entities (e.g. government, university system, NGO) may count for this credit as long as the assessments and programs apply to and are followed by the institution.

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

Does the institution own or manage land that includes or is adjacent to legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance?:

Yes

A brief description of any legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance on institution owned or managed land:

We have partnered with the NC Natural Heritage Program to look at three of our interior forest lands on campus. We did not have any species of significance found during the initial assessment, but will be working with them to keep researching.

Has the institution conducted an assessment or assessments to identify endangered and vulnerable species with habitats on institution-owned or –managed land?:

Yes

Has the institution conducted an assessment or assessments to identify environmentally sensitive areas on institution-owned or –managed land?:

Yes

The methodology(-ies) used to identify endangered and vulnerable species and/or environmentally sensitive areas and any ongoing assessment and monitoring mechanisms:

We are currently in the process of developing a more formal framework to help us identify such sites. Duke has conducted several ecological surveys among the Chapel Woods (4.5 acres), Anderson Woods (6 acres), and Cameron Woods (3 acres). The method of these studies included a major survey of all plant species and invasive species in these strongly pedestrian forest ecosystems in September 2014. These sites will be monitored for environmentally sensitivities.

A brief description of identified species, habitats and/or environmentally sensitive areas:

Duke has identified 122 live bird species on campus. Of these species, about 22 have been found dead on campus as well. The Chapel Woods, Anderson Woods, and Cameron Woods survey completed in September 2014 identified an incomplete list of around 70 plant species. Although this study did not specifically set out to survey animals, worm snakes and white spotted slimy salamanders were also identified on campus. Gray squirrels, white-tailed deer, and domestic cats have also been identified.

A brief description of plans or programs in place to protect or positively affect identified species, habitats and/or environmentally sensitive areas:

Duke University has a number of current efforts regarding wildlife habitat preservation and conservation including wetland restoration and forest management. Duke University has made a significant investment in restoring wetlands in the Duke Forest. SWAMP is a 14-acre restored wetland-stream-lake ecosystem located along a stretch of Sandy Creek in Duke Forest, at the edge of Duke's campus. Prior to its restoration, the site was so heavily eroded and degraded by storm water runoff that it no longer functioned as a healthy wetland. By re-contouring and replanting the degraded Sandy Creek ecosystem and constructing a new earthen dam and a four-acre storm water reservoir below it, the project reduced nitrate levels flowing downstream into the drinking water supply by 64%, and phosphorus levels by 28%, at a cost of about \$2 million. In addition to its roles as a pollution buffer and wildlife habitat, the restored ecosystem serves as an outdoor classroom, training center and field laboratory.

Nearly the entire Duke Garden supports habitat for wildlife. (

<https://gardens.duke.edu/>

) The mature tree canopy, thick shrub understory, variety of fruiting trees and shrubs, and water features provide a rich diversity of habitat for birds and countless other wildlife. Bird watching tours are popular and designated bird watching structures are available in the Blomquist Garden.

When planning and implementing all Duke forest management activities, efforts are made to minimize negative impacts to areas with rare species, unique ecosystems and significant natural features. (

<http://www.dukeforest.duke.edu/>

) These significant natural areas are included in what Duke Forest considers to be High Conservation Value Forests (HCVF's) or Forests of Exceptional Conservation Value (FECV's). The Duke Forest Office maintains records on the location of these significant natural areas and, in some cases, detailed species lists for these sites. In 2004 twelve separate areas of the Duke Forest totaling 1,200 acres were included in the North Carolina Registry of Natural Heritage Areas. The registry agreement states that it is the intention of Duke University to maintain these properties for the perpetuation of natural processes, natural communities and rare species populations.

Registration of these sites is consistent with the overall management goals of the Forest, which includes providing research and teaching areas where human disturbance is minimized. The Natural Heritage Program continues to inventory and survey for threatened and endangered plant and animal species within the Duke Forest. Presently there are no federally-listed endangered or threatened species inhabiting the Duke Forest.

The website URL where information about the institution's biodiversity policies and programs(s) is available:

<http://sustainability.duke.edu/academics/research/wetland.html>

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
Electronics Purchasing
Cleaning Products Purchasing
Office Paper Purchasing
Inclusive and Local Purchasing
Life Cycle Cost Analysis
Guidelines for Business Partners

Electronics Purchasing

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products. This can take the form of purchasing policies, guidelines, or directives.

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

Part 2

Institution purchases EPEAT registered products for desktop and notebook/laptop computers, displays, thin clients, televisions and imaging equipment.

This credit does not include servers, mobile devices such as tablets and smartphones, or specialized equipment for which no EPEAT certified products are available.

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

Does the institution have an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products?:

Yes

A copy of the electronics purchasing policy, directive, or guidelines:

The electronics purchasing policy, directive, or guidelines :

The Duke Computer Purchasing Program offers standardized computer models to get better pricing and extended warranties through our preferred vendors, Dell, Lenovo and Apple. In addition to better pricing, we have selected the most energy efficient computer options to choose from, as rated by EPEAT (Electronic Product Environmental Assessment Tool). Please review the information regarding standardization, warranties and product options on the Duke Computer Store website.

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

followed:

Duke University and Health System has a standardized computer purchasing program. Steps have been taken to eliminate purchases outside of the formal purchasing portal, to ensure that standardization policies are followed.

Does the institution wish to pursue to pursue Part 2 of this credit (expenditures on EPEAT registered electronics)?:

Yes

Expenditures on EPEAT registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment::

	Expenditure Per Level
EPEAT Bronze	0 <i>US/Canadian \$</i>
EPEAT Silver	12,396 <i>US/Canadian \$</i>
EPEAT Gold	15,928,460 <i>US/Canadian \$</i>

Total expenditures on desktop and laptop computers, displays, thin clients, televisions, and imaging equipment:

16,083,463 *US/Canadian \$*

The website URL where information about the institution's electronics purchasing policy, directive, or guidelines is available:

<http://finance.duke.edu/procurement/programs/computer/index.php>

Cleaning Products Purchasing

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has an institution-wide stated preference to purchase cleaning and janitorial products that are Green Seal™ or UL Environment (EcoLogo)™ certified and/or meet similar multi-criteria sustainability standards for cleaning and janitorial products. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. 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 UL Environment (EcoLogo) certified cleaning and janitorial products.

Cleaning and janitorial products include, at minimum:

- Cleaning/degreasing agents
 - General-purpose, bathroom, glass, and carpet cleaners
 - Biologically-active cleaning products (enzymatic and microbial products)
 - Floor-care products, e.g. floor finish and floor finish strippers
 - Hand cleaners
 - Sanitary paper products, e.g. toilet tissue, facial tissue, paper towels, napkins, and placemats
 - Plastic film products (e.g. garbage bags/liners)
 - Laundry care products including powder, liquid or pre-measured dosage laundry detergents, stain removers and dryer sheets
 - Specialty surface cleaning products and odor removers, including but not limited to: boat cleaning products; deck and outdoor furniture cleaning products; graffiti removers; metal cleaning products; motor vehicle (automotive/tire/wheel) cleaning products; motor vehicle windshield washing fluid; optical lens cleaning products; oven cleaning products; upholstery cleaning products; and other cleaning products sold for specific specialty uses
-

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

Does the institution have an institution-wide stated preference to purchase third party certified cleaning and janitorial products?:

Yes

A copy of the green cleaning product purchasing policy, directive, or guidelines:

[HDRL Housekeeping Operations Green Plan Duke.pdf](#)

The green cleaning product purchasing policy, directive, or guidelines:

The university academic cleaning services department has a unit preference to purchase green seal or environmentally friendly cleaning products.

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

The Procurement Office encourages staff, students, and faculty to make wise purchasing decisions as it relates to toxic chemicals, including cleaning products. Procurement Services regularly reviews new janitorial products and supplies, and encourages the three major housekeeping departments to sample and modify their cleaning practices.

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

Yes

Expenditures on Green Seal and/or UL Environment (EcoLogo) certified cleaning and janitorial products:

484,500 US/Canadian \$

Total expenditures on cleaning and janitorial products:

510,000 US/Canadian \$

Has the institution's main cleaning or housekeeping department(s) and/or contractor(s) adopted a Green Seal or ISSA certified low-impact, ecological (“green”) cleaning program?:

Yes

A brief description of the institution’s low-impact, ecological cleaning program:

Duke currently uses Ecolab dispensing systems in all of our residents halls (see attached- QC Installation and Operation). A majority of the products used in this system are green seal. We are also conducting a pilot study with Lotus Pro Ozone in two of our buildings on East campus (see attachment – Product Brochure). University Housekeeping is committed to using products, chemical and equipment that’s not harmful to the environment or personnel. Electrolized water, green seal chemicals, green label equipment, and tools that’s effective without the use of chemicals are examples of our ecological cleaning program.

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

[Duke Green Cleaning Purchasing Documents.pdf](#)

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

EQUIPMENT UPDATES

-Introduced steam machines to East and West Campus. Machines are used to remove build up on corners and edges, cleaning of brick, cleaning of mattresses (bug bed prevention). Also used for showers, entryways and stair landings. Machines only use water and support the green cleaning program

-Introduced upholstery/ carpet extractor. Used to clean all sofas and chairs at least once per year or as needed.

-Introduced boost on a stick scrubbers. Uses sonic technology to strip flooring in half the time.

-Introduced high-speed buffers to support our floor care program.

-Goal to introduce the Vario machine with rotating brushes. Use to deep scrub ceramic flooring with attention to the grout lines.

The website URL where information about the institution's green cleaning initiatives is available:

<http://finance.duke.edu/procurement/green/index.php>

Office Paper Purchasing

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has an institution-wide stated preference to purchase office paper that has recycled content, is certified by the Forest Stewardship Council (FSC), and/or is certified to meet similar multi-criteria sustainability standards for paper. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. 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 office paper with post-consumer recycled, agricultural residue, and/or FSC certified content.

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

Does the institution have an institution-wide stated preference to purchase office paper that has recycled content and/or is certified to meet multi-criteria sustainability standards for paper?:

No

A copy of the paper purchasing policy, directive or guidelines:

The paper purchasing policy, directive or guidelines:

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

Through our partner office supply vendor, we have negotiated a lower institutional rate on recycled content paper and worked with them to ensure that these items are prominently displayed on the vendor's purchasing portal.

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

Yes

Expenditures on office paper with the following levels of post-consumer recycled, agricultural residue, and/or FSC certified content::

	Expenditure Per Level
10-29 percent	29 <i>US/Canadian \$</i>
30-49 percent	184,667 <i>US/Canadian \$</i>
50-69 percent	9,198 <i>US/Canadian \$</i>
70-89 percent (or FSC Mix label)	258 <i>US/Canadian \$</i>
90-100 percent (or FSC Recycled label)	44,781 <i>US/Canadian \$</i>

Total expenditures on office paper :

1,466,277 *US/Canadian \$*

The website URL where information about the paper purchasing policy, directive, or guidelines is available:

<http://finance.duke.edu/procurement/green/epp.php>

Inclusive and Local Purchasing

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses.

Support could take the form of giving preference during RFP processes, conducting targeted outreach to these businesses about opportunities to work with the institution, and/or other efforts to increase purchases made from such businesses.

Part 2

Institution makes purchases from companies that include disadvantaged businesses, social enterprises and/or local community-based businesses.

Purchases that meet multiple criteria listed above should not be double counted. Food and beverage purchases, which are covered by *OP 6: Food and Beverage Purchasing* and *OP 7: Low Impact Dining*, are not included in this credit.

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

Does the institution have an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses?:

Yes

A copy of the policy, guidelines or directive governing inclusive and local purchasing:

The policy, guidelines or directive governing inclusive and local purchasing:

Duke University and Health System gives preference to locally-owned and operated firms. Through the green purchasing and supplier diversity programs, the Procurement Office makes every effort to first and foremost support local, diverse and green firms and see local purchasing as an extension of the larger sustainability efforts. A sample RFP excerpt can be found below:

"Where possible, vendors are encouraged to use second-tier suppliers in close proximity to Duke. The use of local minority and women-owned businesses strengthens our commitment to the local economy."

An excerpt from Duke's governing Terms and Conditions states:

Duke maintains a voluntary Supplier Diversity Program in order to provide an equitable competitive environment for historically underutilized business sectors. Diverse Suppliers are firms that are small, disadvantaged, woman, veteran, service-disabled veteran,

HubZone or LGBT (lesbian, gay, bisexual, transgender) owned. Ownership refers to at least 51% financial control as well as operational management.

Diverse Suppliers are recognized with appropriate documentation of ownership status as certified by a recognized certifying organization or agency. Recognized certifying bodies include: U.S. Small Business Administration, N.C. Department of Historically Underutilized Business, Durham Department of Equal Opportunity / Equity Assurance, National Minority Supplier Development Council, North Carolina Minority Supplier Development Council, Women's Business Enterprise National Council, National Gay and Lesbian Chamber of Commerce, as well as local, regional, city and state certifying agencies.

In addition to primary suppliers, Duke pursues maximum participation through second-tier efforts. Primary contractors must submit a plan for their involvement with diverse second-tier suppliers. Following Purchase Order/Agreement award, the Contractor is required to maintain both first and second-tier efforts and submit quarterly progress reports.

By taking an active role in working with Diverse Suppliers, Duke can optimize price, service, and delivery conditions while building the local community and economy. Supplier diversity will be one, but not the sole, consideration in all Purchase Order/Agreement awards.

Does the institution wish to pursue Part 2 of this credit (inclusive and local expenditures)?:

No

The percentage of total purchases from disadvantaged businesses, social enterprises and/or local community-based businesses:

The website URL where information about the institution's inclusive and local purchasing policies and/or program is available:

<http://finance.duke.edu/procurement/diversity/index.php/>

Life Cycle Cost Analysis

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution employs Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy- and water-using products and systems. Practices may include structuring RFPs so that vendors compete on the basis of lowest total cost of ownership (TCO) in addition to (or instead of) purchase price.

Submission Note:

Duke also has adopted an extensive Green Purchasing Policy with additional sustainability guidelines for the campus.

http://sustainability.duke.edu/campus_initiatives/purchasing/index.html

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

Does the the institution employ Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy and water-using products and systems?:

Yes

Does the institution employ LCCA as a matter of policy and practice across the operations of the entire institution (i.e. all divisions)?:

No

A brief description of the LCCA policy(ies) and practice(s):

Consultants, vendors, and contractors responsible for projects at Duke must adhere to all applicable building codes and the Duke University Construction Standards. As such all consultants, service providers, vendors and contractors are to follow all applicable building codes and Duke University Design Guidelines. Part of the standards includes Duke's LEED Plus policy, a guideline for architecture, engineering, and construction teams working for Duke, addressing energy and water efficiency goals for building projects. This policy reinforces the 2007 Duke Climate Action Plan.

Extract from policy:

A/E/C Teams must demonstrate a 30% improvement over energy efficiency baseline of ASHRAE 90.1-2007, Appendix G, through the development of an accurate Whole Building Energy Simulation Model. The choice of software is left to the modeler; however, DOE 2.x-

or EnergyPlus-based systems are recommended.

The accuracy of the model is critical to prediction and budgeting for the life cycle cost of our buildings. Additionally, an accurate WBES will aid in maximizing available LEED credits, and the selected credits are meant to ensure accuracy of the model. To encourage the effort and to ease communication, the modeler should use the attached forms for identifying modeling input and output values for Duke review.

A/E/C teams should produce early model iterations at the Design Development Phase for review with Duke Facilities Management staff (see attached for requested format). Teams must submit a finalized model and Life Cycle Cost Analysis to FMD as part of the Construction Document package. The WBES model results are considered integral to the 100% CD submission, and are required for FMD to sign off on construction approval.

During the construction phase of the project, all submittals are required to include an energy and water impact statement, identifying if the proposed equipment will change building energy consumption, and if so, by what value.

The website URL where information about the institution's LCCA policies and practices is available:

<http://fmd.duke.edu/guidelines/design/LEED%20Plus.pdf>

Guidelines for Business Partners

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has and acts on policies, guidelines and/or agreements that set expectations about the social and environmental responsibility of its business partners. The policies, guidelines and/or agreements require new and/or existing vendors and contractors and/or franchisees to adhere to:

1) Minimum environmental standards and practices defined by the institution, for example as outlined by the institution's sustainability policies

And/or

2) Minimum standards and practices governing employee wages, benefits, working conditions and rights that are consistent with fundamental International Labor Organization (ILO) conventions.

All enterprises with employees on-site as part of regular campus operations (e.g. contractors and franchisees) and other standing and/or formal business relationships (e.g. regular vendors and contracted services) are included.

Businesses that produce and/or sell licensed articles bearing the institution's trademarked logo ("licensees") are not included. They are covered in *EN 15: Trademark Licensing*.

The credit acknowledges institutional engagement in selecting its business partners and guiding them toward sustainability. Policies, guidelines or practices of the businesses themselves do not count for this credit in the absence of institutional selection criteria and/or guidance. Requiring compliance with existing legislation does not count on its own, but may be included as part of broader requirements that meet the criteria outlined above.

Policies adopted by entities of which the institution is part (e.g. government or 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

How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum environmental standards?:

Some

How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum standards governing employee wages, benefits, working conditions and rights?:

All

A copy of the policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):

[Duke University Vendor Code of Conduct Excerpt.docx](#)

The policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):

All articles manufactured and delivered under this contract/purchase order will be manufactured in accordance with the Fair Labor Standards Act of 1938, as amended in 1961 (29 USC 201 219).

The Contractor hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352) and the Executive Order 11246, dated September 24, 1965, and as amended by Executive Order 11375, is incorporated by reference Pub. L. 95-507 including flow-down clause requirements concerning small businesses is included by reference. In addition, contractors shall provide, if necessary, assurance of compliance with provisions of Section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112), Title IX of the Education Amendments of 1972 (Pub. L. 92-318), and the Age Discrimination Act of 1975 (Pub. L. 94-135).

The Contractor and Subcontractor shall abide by the requirements of 41CFR 60-300.5(A) and 60-741.5(A). These regulations prohibit discrimination against qualified protected veterans and individuals on the basis of disability, and require affirmative action by covered prime Contractors and Subcontracts to employ and advance in employment qualified protected veterans and individuals with disabilities. Duke is committed to environmental stewardship, and Contractor shall take reasonable steps to minimize negative environmental impact.

1. Contractor shall minimize the amount of packaging and other incidental waste discarded in the course of distributing products and rendering other services. Contractor shall reuse and/or recycle such materials whenever feasible.
2. To the extent possible, Contractor shall opt for materials that do not pose environmental and health risks.
3. When supplying products covered by Energy Star guidelines, Contractor shall supply products that meet these guidelines. Product categories, program details, model listings, and product criteria are available at

www.energystar.gov

. In all other product areas, Contractor shall supply energy efficient products.

4. Primary Contractors must submit a plan documenting their environmental stewardship efforts.
5. Following Purchase Order/Agreement award, the Contractor is required to maintain records that identify both first and second tier efforts and submit quarterly progress reports.

A brief description of programs and strategies institution has implemented to ensure that the guidelines are followed, including a brief description of instances when the guidelines have changed purchasing behavior, if applicable:

Duke University and Health System requires vendors to comply with Purchase Order Terms and Conditions, which are posted on our website and include basic, socially responsible terms. Additionally, the following verbiage is included, in some variety, in the RFP language (this is dependent on the commodity being procured):

5. Diversity and Environmental Programs

A. Supplier Diversity (Minority/Women Business Enterprise Program)

Duke University voluntarily maintains a Minority/Women Business Enterprise Program (MWBE) as part of its effort to increase participation of women and minority vendors. The goal is for a minimum of five percent (5%) of the university's purchases to come from MWBE firms. This is a goal, not a set-aside or quota. We seek to achieve this goal through primary and second-tier suppliers (suppliers who contract with larger supply companies doing business with Duke). All primary suppliers must submit a plan with their bid, indicating

how they intend to use women and minority vendors as their second-tier suppliers. Each plan will be evaluated based on good faith efforts and will consider the following factors:

- o Availability of women/minority vendors who can supply the goods and services requested in the Request for Bid.
- o Competitiveness of the prospective second-tier suppliers.

Where possible, vendors are encouraged to use second-tier suppliers in close proximity to Duke. The use of local minority and women-owned businesses strengthens our commitment to the local economy. In all cases, however, it is expected that the vendors meet the criteria of price, service and delivery. Supplier diversity will be one, but not the sole, consideration in all contract awards. Ultimately, it will be left to the discretion of the primary supplier as to which second-tier supplier it uses. All minority/women vendors must be certified by one of several agencies: municipal, state, federal, the National Minority Supplier Development Council or Duke. When a contract is awarded, the supplier is required to maintain its second-tier effort and submit monthly reports on its progress.

B. Environmental Program

Duke University strives to become a leader in environmental stewardship. Toward this purpose, Duke has initiated an Environmentally Preferable Purchasing (EPP) program. Our goals are to minimize waste, reduce pollution, conserve natural resources, and model environmental protection practices within the Duke University and Duke Medicine. For details, see Duke's EPP Guidelines at

<http://www.finance.duke.edu/procurement/green/epp.php>

With respect to product packaging, Duke seeks suppliers offering:

- Packaging with post-consumer recycled content
- Packaging that is locally recyclable
- Minimized packaging
- Packaging reclamation and reuse programs

With respect to laboratory supplies, Duke seeks suppliers offering:

- Product reclamation and recycling programs
- Calibration services that will extend product life
- Reusable alternatives to commonly discarded products
- Alternatives to mercury and natural latex
- Personnel that will seek-out, identify and promote environmentally friendly products through their purchasing system, within the storerooms and throughout the labs
- The ability to provide quarterly spend reports with regards to green product purchases
- Active participation in Duke's EPP program, including dissemination of information and collection of recyclable and reusable lab materials upon delivery
- An in-house staff that follows the fundamental beliefs stated in Duke's Environmental Statement, which can be viewed at:

<http://www.duke.edu/sustainability/documents/Duke>

Env Policy statement.pdf

Duke gives preference to suppliers with a commitment to cost, quality, and environmental excellence. Bidders are encouraged to include concise information on reduced impact products and services. Include relevant certifications of materials sources and manufacturing processes.

There is also an Energy Star mandate for appliances, a Computer standardization program / ePeat, and an Office Supply vendor partnership for greater environmental products. exposure

The website URL where information about the institution's guidelines for its business partners is available:

<http://finance.duke.edu/procurement/vendors/po.php>

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
Support for Sustainable Transportation

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution supports alternative fuel and power technology by including in its motorized vehicle fleet vehicles that are:

- A. Gasoline-electric hybrid
- B. Diesel-electric hybrid
- C. Plug-in hybrid
- D. 100 percent electric
- E. Fueled with Compressed Natural Gas (CNG)
- F. Hydrogen fueled
- G. Fueled with B20 or higher biofuel for more than 4 months of the year

And/or

- H. Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year (e.g. fuel contains cooking oil recovered and recycled on campus or in the local community)

For this credit, the institution's motorized fleet includes all cars, carts, trucks, tractors, buses and similar vehicles used for transporting people and/or goods, including both leased vehicles and vehicles that are institution-owned and operated. Heavy construction equipment (e.g. excavators and pavers), maintenance equipment (e.g. lawn-mowers and leaf blowers), and demonstration/test vehicles used for educational purposes are not included in this credit.

Vehicles that meet multiple criteria (e.g. hybrid vehicles fueled with biofuel) should not be double-counted.

Submission Note:

Duke University also has 22 vehicles that run on bio-diesel when available. In addition, Duke has 74 flex vehicles, which have the capability to run on bio-diesel.

We also included 1 CNG vehicle and 24 CNG/Gasoline hybrid vehicles in the CNG numbers since there was no option for this mix of alternative fuel vehicle.

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

Total number of vehicles in the institution's fleet :

692

Number of vehicles in the institution's fleet that are::

	Number of Vehicles
Gasoline-electric, non-plug-in hybrid	5
Diesel-electric, non-plug-in hybrid	2
Plug-in hybrid	3
100 percent electric	26
Fueled with compressed natural gas (CNG)	24
Hydrogen fueled	0
Fueled with B20 or higher biofuel for more than 4 months of the year	0
Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year	0

A brief description of the institution's efforts to support alternative fuel and power technology in its motorized fleet:

The website URL where information about the institution's support for alternative fuel and power technology is available:

Student Commute Modal Split

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's students commute to and from campus using more sustainable commuting 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.

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

Total percentage of students that use more sustainable commuting options:

40.50

The percentage of students that use each of the following modes as their primary means of transportation to get to and from campus::

	Percentage (0-100)
Commute with only the driver in the vehicle (excluding motorcycles and scooters)	59.50
Walk, bicycle, or use other non-motorized means	18.50
Vanpool or carpool	8
Take a campus shuttle or public transportation	14
Use a motorcycle, scooter or moped	0

A brief description of the method(s) used to gather data about student commuting:

Duke does a bi-annual survey with the regional planning agency (Triangle J Council of Governments), and this information was obtained from that survey effort.

The website URL where information about sustainable transportation for students is available:

<http://parking.duke.edu/>

Employee Commute Modal Split

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's employees (faculty, staff, and administrators) get to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, telecommuting, 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 STARS submission form would not allow us to include percentage numbers for the above fields, which did not up to 100%. As a result, some percentage points were added to the above fields, so that the fields added up to 100%. The true percentage outcomes from the university-wide survey were as follows:

- The percentage (0-100) of institution's employees that use more sustainable commuting options = 29%
- 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%
- 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 = 10 %
- The percentage (0-100) of institution's employees who vanpool or carpool as their primary method of transportation = 10%
- The percentage (0-100) of institution's employees who take a campus shuttle or public transportation as their primary method of transportation = 9%

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

Total percentage of the institution's employees that use more sustainable commuting options:

29

The percentage of the institution's employees that use each of the following modes as their primary means of transportation to and from campus::

	Percentage (0-100)
--	--------------------

Commute with only the driver in the vehicle (excluding motorcycles and scooters)	71
Walk, bicycle, or use other non-motorized means	9
Vanpool or carpool	6
Take a campus shuttle or public transportation	8
Use a motorcycle, scooter or moped	---
Telecommute for 50 percent or more of their regular work hours	---

A brief description of the method(s) used to gather data about employee commuting:

Duke conducts a bi-annual survey with the regional planning agency (Triangle J Council of Governments). In alternate years, Duke distributes the same survey to commuters to capture information during off years. This information was obtained from these survey efforts.

The website URL where information about sustainable transportation for employees is available:

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

Support for Sustainable Transportation

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

The institution demonstrates its support for active (i.e. non-motorized) transportation on campus in one or more of the following ways:

Option A: Institution:

- Provides secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters. The storage, shower facilities and lockers are co-located in at least one building/location that is accessible to all commuters.
- Provides short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and makes long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable).
- Has a “complete streets” or bicycle accommodation policy (or adheres to a local community policy) and/or has a continuous network of dedicated bicycle and pedestrian paths and lanes that connects all occupied buildings and at least one inter-modal transportation node (i.e. transit stop or station)

And/or

- Has a bicycle-sharing program or participates in a local bicycle-sharing program

Option B: Institution is certified as a Bicycle Friendly University (at any level) by the League of American Bicyclists (U.S.) or under a similar third party certification for non-motorized transportation.

Part 2

Institution has implemented one or more of the following strategies to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting. The institution:

- Offers free or reduced price transit passes and/or operates a free campus shuttle for commuters. The transit passes may be offered by the institution itself, through the larger university system of which the institution is a part, or through a regional program provided by a government agency.
- Offers a guaranteed return trip (GRT) program to regular users of alternative modes of transportation
- Participates in a car/vanpool or ride sharing program and/or offers reduced parking fees or preferential parking for car/vanpoolers
- Participates in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization
- Has one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters
- Offers a telecommuting program for employees, either as a matter of policy or as standard practice
- Offers a condensed work week option for employees, either as a matter of policy or as standard practice
- Has incentives or programs to encourage employees to live close to campus

- Other strategies

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

Does the institution provide secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters?:

Yes

A brief description of the facilities for bicycle commuters:

Limited facilities do already exist on campus including at the Levine Science Research Center. Duke is in the process of locating additional facilities and is working with the two campus gyms to allow bikers to use the showers in the morning. The URL below contains a link to a map showing where all of the different bike racks on campus are located.

Does the institution provide short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and make long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable)?:

Yes

A brief description of the bicycle parking and storage facilities:

330 Duke has biking infrastructure installed within the ranges noted above around all campus buildings. Duke currently submits a bike plan to the city annually, which outlines all proposed future projects, along with bike parking locations. Duke has over 2,200 bike parking locations on campus, with many of these locations offering covered bike storage. The Fuqua School of Business also offers bike lockers as an additional parking option for bike commuters on campus.

Does the institution have a “complete streets” or bicycle accommodation policy (or adhere to a local community policy) and/or have a continuous network of dedicated bicycle and pedestrian paths and lanes?:

Yes

A brief description of the bicycle/pedestrian policy and/or network:

Many of the roadways in and around Duke are public roads, and are therefore in compliance with the NCDOT complete streets policy. Thus, as infrastructure is updated, it follows a complete streets approach as designated by the state. For privately owned and operated roadways on Duke campus, Duke follows the Campus Master Plan for updating roadway and pedestrian infrastructure. The university has numerous greenways in and around campus that complement the existing multi-modal infrastructure, with continued plans to invest in additional infrastructure as funding becomes available.

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

Yes

A brief description of the bicycle sharing program:

Zagster has 50 rentable bicycles distributed throughout 4 locations to be used across campus. With a \$20 annual pass, the first three hours of use are free.

Is the institution certified as a Bicycle Friendly University by the League of American Bicyclists (U.S.) or under a similar third party certification covering non-motorized transportation?:

Yes

A brief description of the certification, including date certified and level:

Bronze Level, 2012

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

Yes

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

Duke offers a GoPass (regional transit pass) to all faculty, students and staff, which enables them to ride all regional transit services at no cost throughout the year. The pass is free for all students, and faculty and staff pay a one-time annual \$25 fee.

Does the institution offer a guaranteed return trip (GRT) program to regular users of alternative modes of transportation?:

Yes

A brief description of the GRT program:

All transit, bike and carpool staff are able to utilize the GRT program up to (6) times annually at no cost to them. Users are reimbursed for any eligible trips taken back to their residence, vehicle or other destinations.

Does the institution participate in a car/vanpool or ride sharing program and/or offer reduced parking fees or preferential parking for car/vanpoolers?:

Yes

A brief description of the carpool/vanpool program:

Duke facilitates the use of carpooling through GreenRide, a Duke specific web and map based rideshare solution that helps users find carpool partners. Each staff, faculty, or student member of a carpool receives 24 free parking passes to use on days when they cannot carpool. Carpools also received a parking space in a preferred lot and significantly discounted or free parking dependent on the number of people in the carpool. A brief description of the carpool/vanpool program.

Does the institution participate in a car sharing program, such as a commercial car-sharing program, one

administered by the institution, or one administered by a regional organization?:

Yes

A brief description of the car sharing program:

The WeCar by Enterprise fleet includes 18 vehicles at locations across Duke, including West, Central and East campuses, as well as the Health System. The fleet includes the new Chevrolet Volt, which operates two ways: battery powered and gasoline powered.

The service works like other car-sharing programs: vehicles are reserved online, accessed using a membership card and returned to the same location where the car was picked up. Students and employees can check out cars at the rate of \$8/10/hour. Daily rentals are also available. Currently, there are 1500 members in the WeCar car share program.

Does the institution have one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters?:

Yes

A brief description of the electric vehicle recharging stations:

There is (1) level-3 charger at Smith Warehouse. This charger was installed via a grant through Advanced Energy and enables users to stay in the spot for 1-hour of parking, in addition to charging the vehicle. Duke today article:

<http://today.duke.edu/2014/09/chargingstation>

Does the institution offer a telecommuting program for employees as a matter of policy or as standard practice?:

Yes

A brief description of the telecommuting program:

The telecommuting program enables staff to formulate a plan with their management team that allows them to work from home, or telecommute in. Typically a telecommuting arrangement will specify the number of hours to be worked from home, and the number of hours in office. Duke considers telecommuting to be a viable alternative to working from a central Duke worksite in cases where the characteristics of the employee, supervisor, and work are compatible with such an arrangement, and the physical environment, equipment, and technology are adequate to support it. Typically, a Telecommuting arrangement will specify the number of hours to be worked at home and the specific time in which this will occur (eg., every Tuesday, the first Monday of the month, etc.). In cases where the department agrees to support some or all of the costs of an off-site office, the supervisor and staff member should discuss all applicable costs, including that of additional telephone lines, telephone use charges and Internet Service Provider (ISP) charges, as appropriate. Staff members working under a Telecommuting arrangement will come on-site for periodic meetings and interactions with the supervisor. Telecommuting does not connote the professional or management practice of working at home after hours to work on reports or presentations or to catch up on reading.

Approximately 2% of Duke employees telecommute.

See this link for more information:

Does the institution offer a condensed work week option for employees as a matter of policy or as standard practice?:

Yes

A brief description of the condensed work week program:

Contingent on the individuals work arrangements and needs, staff are able to condense their work week to accommodate a modified schedule. Staff can opt to work (4) 10-hour days for instance, in place of (5) 8-hour days.

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

Yes

A brief description of the incentives or programs to encourage employees to live close to campus:

Duke has a Duke-Durham partnership, which focuses on building a sense of commuting within the Durham-Duke population. More information here:

<https://community.duke.edu/>

Currently, the program has an initiative focused on providing low-cost loans to eligible staff members interested in living in targeted redeveloped neighborhoods. More information on that program, here:

<http://today.duke.edu/2014/06/southside>

Does the institution have other incentives or programs to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting?:

Yes

A brief description of other sustainable transportation initiatives and programs:

Duke offers (3) commuter benefits programs for transit, biking and carpooling/vanpooling. Additionally, Duke Parking and Transportation has (2) staff members focused on TDM (transportation demand management) programming. In addition to transit planning and execution, these positions focus on providing resources to all Duke faculty, staff and students.

Duke also offers commuting benefits for cyclists, transit riders and carpool/vanpool riders. Each program offers a variety of incentives, including (2) free parking passes monthly, access to national benefits programs, and discounted commuting costs annually.

The website URL where information about the institution's sustainable transportation program(s) is available:

<http://parking.duke.edu/alternative/>

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 Minimization
Waste Diversion
Construction and Demolition Waste Diversion
Hazardous Waste Management

Waste Minimization

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has implemented source reduction strategies to reduce the total amount of waste generated (materials diverted + materials disposed) per weighted campus user compared to a baseline.

Part 2

Institution's total annual waste generation (materials diverted and disposed) is less than the minimum performance threshold of 0.45 tons (0.41 tonnes) per weighted campus user.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

Total waste generation includes all materials that the institution discards, intends to discard or is required to discard (e.g. materials recycled, composted, donated, re-sold 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 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

Submission Note:

Baseline used for Duke waste and recycling data - FY12

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

Waste generated::

	Performance Year	Baseline Year
Materials recycled	5,587.77 Tons	3,983.98 Tons
Materials composted	442.26 Tons	366 Tons
Materials reused, donated or re-sold	0 Tons	0 Tons

Materials disposed in a solid waste landfill or incinerator	9,480.21 <i>Tons</i>	9,998.52 <i>Tons</i>
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Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
Number of residential students	5,300	5,207
Number of residential employees	0	0
Number of in-patient hospital beds	957	957
Full-time equivalent enrollment	14,850	14,591
Full-time equivalent of employees	30,472	28,752
Full-time equivalent of distance education students	0	0

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	July 1, 2013	June 30, 2014
Baseline Year	July 1, 2011	June 30, 2012

A brief description of when and why the waste generation baseline was adopted:

The Campus Sustainability Committee, comprised of students, faculty and staff, adopted this baseline for consistency and ability to track data retroactively based on new definitions of what was included in the baseline.

A brief description of any (non-food) waste audits employed by the institution:

During FY' 14 students completed no fewer than 10 waste audits on academic, administrative, and residential buildings. Waste placed in trash bins was evaluated to understand how much of the material could be recycled and/or composted.

A brief description of any institutional procurement policies designed to prevent waste:

Duke Green Purchasing policy has a section focused on source reduction -

Reducing unnecessary waste at the source allows the University to both mitigate the inefficient use of our natural resources and benefit economically from decreased handling and disposal costs.

Procurement activity may include:

- Institute practices that reduce waste, resulting in the purchase of fewer products whenever practicable and cost-effective, but without reducing safety or workplace quality.
- Purchase remanufactured products such as laser toner cartridges, tires, furniture, equipment and automotive parts whenever practicable, but without reducing safety, quality or effectiveness.
- Consider short-term and long-term costs in comparing product alternatives. Include evaluation of total costs expected during the time a product is owned, including, but not limited to, acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime compared to other alternatives.
- Purchase products that are durable, long lasting, reusable or refillable.
- Request that vendors eliminate packaging or use the minimum amount necessary for product protection to the greatest extent practicable.
- Request packaging that is reusable, recyclable or compostable when suitable uses and programs exist.
- Reuse pallets and packaging materials.
- Require that all equipment bought after the adoption of this Policy, when practicable, be compatible with products and services that provide source reduction benefits.

http://sustainability.duke.edu/campus_initiatives/purchasing/index.html

A brief description of any surplus department or formal office supplies exchange program that facilitates reuse of materials:

Duke University and Health System has a formalized surplus property program, whereby all Duke-purchased property and supplies, including furniture, electronics, medical equipment and office supplies are collected, refurbished (if necessary) and offered to Duke Departments and non-profits at no charge.

FY14 data -

- Internal: 3,309 items donated back into Duke
- External: 9,410 items to non-profits

http://finance.duke.edu/procurement/news/items/2010_10_21_surplus.php

Duke Recycles offers free surplus office supplies to faculty, staff, and students. Donations from employees and students cleaning out their offices are collected and organized in the Duke Recycles facility.

http://sustainability.duke.edu/campus_initiatives/waste/freestore.html

A brief description of the institution's efforts to make materials available online by default rather than printing them:

"The Office of the University Registrar at Duke University currently produces ten course catalogs each year and "The Duke Community Standard in Practice; A Guide for Undergraduates ," which are all available online in PDF format. Only two of these documents are available and distributed as printed publications. The student directory, class schedules, class lists, and grade rosters are not printed, and are instead available online as needed. The Office of the University Registrar makes available the options of online transcript ordering and distribution for current students."

A brief description of any limits on paper and ink consumption employed by the institution:

Changes to ePrint quota system effective Aug. 15

Based on recommendations from Duke Student Government and Students for Sustainable Living, Duke's Office of Information Technology is making changes to the ePrint student quota system, which is designed to encourage reasonable, sustainable printing habits.

Duke students receive an allocation of \$32 per semester in black-and-white laser printing at OIT's ePrint stations in libraries, computer labs, and public spaces. If your balance falls below \$9, you can request an increase to your printing allocation of \$8. Undergraduate students may request this increase only once per semester. If you exhaust your allocation, your print jobs will be charged to your FLEX account at \$0.04 per sheet.

The free allotment is the equivalent of 1,000 sheets (or 2,000 sheets if you print double-sided) per semester per student. The per-sheet rate is based on OIT calculations of the actual cost of printing. The recommendations for these quotas and fees were developed by Duke's Students for Sustainable Living, with the goal of reducing students' impact on the environment and decreasing Duke's role in the overconsumption of trees and the energy and water used in the production of paper. Those recommendations were approved by the Duke Student Government Senate in April 2014.

https://oit.duke.edu/news/2014/2014_08_14_eprint.php

A brief description of any programs employed by the institution to reduce residence hall move-in/move-out waste:

During the two weeks of student move-in, Duke Recycles collects and processes tons of cardboard as students return to campus. Corrals are constructed of orange construction fencing in convenient and centralized locations for students to bring their moving boxes once emptied. Prior to Move-In flyers, explaining the process, (about flattening boxes and removing debris) are distributed to Residence Life and Housing Services for dissemination.

During Move-Out Duke Sanitation and Recycling (DSRS) partners with Housing, Dining and Residence Life to identify areas in each dorm where students can leave items for donation. DSRS works with local non-profits to set up a collection time for each of these locations.

A brief description of any other (non-food) waste minimization strategies employed by the institution:

A brief description of any food waste audits employed by the institution:

A brief description of any programs and/or practices to track and reduce pre-consumer food waste in the form of kitchen food waste, prep waste and spoilage:

A brief description of programs and/or practices to track and reduce post-consumer food waste:

Trays were removed from Duke University residential dining facilities in 2008.

A brief description of the institution's provision of reusable and/or third party certified compostable to-go containers for to-go food and beverage items (in conjunction with a composting program):

Eco-clam shell containers made of environmentally-friendly polypropylene are sold for \$5. When an owner drops off the to-go container to be cleaned and sanitized, he or she receives a keychain token that can be turned in for a replacement clamshell. In January 2010, the first 200 containers were given away as an incentive to join the program.

Currently clam shells can be used at 3 large food vendors on campus, the Loop, Grace's, and Quenchers. The clam shell program used to be active at the Great Hall, Duke's largest food vendor and dining hall. This year, however, the Great Hall is undergoing renovation. Duke intends to continue the clam shell program in the Great Hall once it reopens.

A brief description of the institution's provision of reusable service ware for “dine in” meals and reusable and/or third party certified compostable service ware for to-go meals (in conjunction with a composting program):

A brief description of any discounts offered to customers who use reusable containers (e.g. mugs) instead of disposable or compostable containers in to-go food service operations:

20% discounts are offered to customers using any reusable mug for a coffee or fountain drink. Additionally, reusable mugs are sold in all retail locations with coffee drinks on Duke University campus.

A brief description of other dining services waste minimization programs and initiatives:

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

http://sustainability.duke.edu/campus_initiatives/waste/index.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

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

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

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 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

Submission Note:

Duke is currently developing standardized tracking mechanisms for all recycling, compost, diversion, reuse, donated or re-sold materials on campus. At the time of this submission these numbers have not be finalized. The tonnages above reflect recycling (internal and contracted) as well as compost.

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

Materials diverted from the solid waste landfill or incinerator:

6,030.03 Tons

Materials disposed in a solid waste landfill or incinerator :

9,480.31 Tons

A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate, including efforts made during the previous three years:

Duke maintains a strong commitment to helping and improving the environment through the Sanitation, Recycling, and Procurement Departments, which work closely together to promote proper waste management and reduction. These units manage solid waste and sustainability efforts at Duke while providing support for university-wide special events and routine preventative maintenance of sanitation and recycling equipment. Sanitation and Recycling also manage a composting operation to turn landscaping material into useable top soil. Taking care of the environment is an important role of Facilities Management. Through Duke Recycles, Duke traditional recyclables like magazines or aluminum from the Durham landfill every year, including many non-traditional recyclables, such as food compost, motor oil and tires. Duke Recycles collects more than 1,500 bins that contain anything from paper to glass to packing peanuts. Since 1989, Duke Recycles has offered numerous services to help create a more sustainable campus by emphasizing student and faculty and staff participation. Recycling locations can be found outside many residence halls, in Central Campus laundry areas and in university common areas. Students also have a small bucket in their rooms to collect items to carry to the nearest drop-off location. The Duke

Surplus Property Program helps to divert tons of unnecessary waste from the landfill every year. All Duke-purchased property including furniture, electronics, medical equipment and supplies are collected daily and staged for donation to local non-profits and Duke Departments. Data-containing electronic items are wiped to meet Department of Defense standards, and are then primarily donated to our local school system as well as other non-profits. This donation-only business model helps to eliminate unnecessary purchases and the resources required to sell surplus property. This “no-sell” model began in 2007.

A brief description of any food donation programs employed by the institution:

During shutdown periods, perishable items are donated to a local food bank. The groups that receive donations include Soup Kitchen, Caring House, Durham Rescue Mission, and Urban Ministries. Duke also engages in large scale donations to Urban Ministries before holidays and during student breaks to feed the local community in Durham. As of 2013, four large scale donations had occurred from Duke dining services to Urban Ministries, and the university hopes to increase the frequency of these donations of food waste to the community in the future.

A brief description of any pre-consumer food waste composting program employed by the institution:

Bon Appétit composts pre-consumer waste in all of the facilities on Duke University's campus. Compost bins are made readily available throughout locations for pre-consumer waste. An accurate estimate is that roughly 90% of pre-consumer food waste is composted.

A brief description of any post-consumer food waste composting program employed by the institution:

Bon Appétit meets the criteria for this credit at all Duke University locations. Dynamic signage from the “Taste Don’t Waste” initiative instructs customers to leave all food waste and napkins on their plates when sending them to the dish room. Once in the dish room, all post-consumer food waste is composted. An estimate of about 90% of all post-consumer food waste gets composted. In addition, all garbage cans have been removed from the "All you Care to Eat" facility during these meal periods to deter customers from using them for compostable items.

Does the institution include the following materials in its waste diversion efforts?:

	Yes or No
Paper, plastics, glass, metals, and other recyclable containers	Yes
Food donations	No
Food for animals	No
Food composting	Yes
Cooking oil	No

Plant materials composting	No
Animal bedding composting	No
Batteries	No
Light bulbs	No
Toner/ink-jet cartridges	No
White goods (i.e. appliances)	No
Laboratory equipment	Yes
Furniture	No
Residence hall move-in/move-out waste	Yes
Scrap metal	Yes
Pallets	Yes
Motor oil	No
Tires	No

Other materials that the institution includes in its waste diversion efforts:

Materials in Recycling Rate

- Office Paper
- Newspaper
- Magazines
- Glass
- Plastic
- Aluminum
- Shredded Paper
- Steel/Tin Cans
- Scrap Metal
- Electronics
- Hard Cover Books
- Pallets

Materials in Diversion Rate

- All Recycling Rate materials
- Non-household Batteries
- Food waste for compost
- Student Move-Out
- Other items we measure by weight
(cooking oil, motor oil, etc.)

Construction and Demolition Waste Diversion

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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

Construction and demolition materials recycled, donated, or otherwise recovered:

0 Tons

Construction and demolition materials landfilled or incinerated :

0 Tons

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

Duke has made significant commitments to green design and construction, including a commitment that all new construction and major renovations will achieve Leadership in Energy and Environmental Design (LEED™) Certification standards, with a goal of LEED™ Silver. Duke currently has 29 LEED™ certified buildings and 9 buildings registered with LEED™ for future certification. 27% of Duke University's total square footage is registered or certified LEED™.

As part of the LEED certification process contractors are required to develop a construction waste management plan to recycle and/or salvage C&D waste. This is happening as part of the LEED process at Duke but the reporting structure has not been set up to capture the tonnage details from all projects across campus.

http://sustainability.duke.edu/campus_initiatives/buildings/index.html

Hazardous Waste Management

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

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.

Part 2

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students. Institution takes measures to ensure that the electronic waste is recycled responsibly, for example by using a recycler certified under the e-Stewards and/or R2 standards.

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

Does the institution have strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seek to minimize the presence of these materials on campus?:

Yes

A brief description of steps taken to reduce hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste:

Occupational and Environmental Safety Office, Environmental Programs supports Duke University's policy to minimize the environmental impact of its activities through the development, implementation, and tracking of hazardous chemical and radiological waste. Minimizing the amount hazardous waste generated is the primary goal of OESO, Environmental Programs, and this is a shared responsibility between the individual generators and OESO, Environmental Programs. Current opportunities to minimize hazardous, universal, and non-regulated chemical waste generated at Duke University include:

PRE-PURCHASE CONSIDERATIONS

Persons ordering chemicals should purchase only the amount of chemicals which are needed in order to avoid the disposal costs of excess chemicals, which often outweigh the savings of ordering larger quantities.

INVENTORY CONTROL

The chemical inventory control system prevents additional purchases of chemicals that already exist onsite, reducing costs and saving time. OESO, Environmental Programs collects unused or expired chemicals across the institution for disposal or reuse.

VOLUME REDUCTION

Chemical users utilize "micro" volume methods whenever possible, reducing the aqueous components in samples and reducing the total amount of waste generated for disposal. Another practice which reduces the total volume of hazardous waste is to carefully segregate hazardous and nonhazardous wastes.

PROCESS CHANGE

OESO, Environmental Programs encourages the institution to switch from hazardous to non-hazardous chemicals and change concentrations of highly hazardous chemicals. One example of this is the replacement of mercury-containing equipment such as thermometers with electronic equipment.

SURPLUS EXCHANGE

OESO Environmental Programs manages a surplus chemicals exchange program. Unopened chemicals are collected, stored, and made available for redistribution elsewhere free of charge. The surplus chemical exchange is located at 017 Medical Sciences Research Building (basement level near the loading dock). A current inventory of chemicals is posted on the door of Room 017, or inquiries can be made by telephone to OESO EP or by searching the Internet at:

<http://www.safety.duke.edu/ChemEx/chemex.asp>

A brief description of how the institution safely disposes of hazardous, universal, and non-regulated chemical waste:

OESO, Environmental Program Division makes hazardous waste decisions in accordance with RCRA guidelines, prepares wastes for shipment and disposal, and provides assistance to generators as necessary. OESO, Environmental Programs has a rechargeable battery and cell phone recycling program: batteries less than 2 pounds can be placed in the designated recycling containers throughout campus. OESO, Environmental Programs also provides support to the Health System to manage the generation and handling of hazardous drug waste, evaluate environmental risks, and ensure compliance with applicable environmental regulations. Radioactive waste is accumulated in laboratories in waste containers and picked up by OESO, Environmental Programs.

Requests for a waste pick up are submitted by registered users through the OESO LSM system. OESO Environmental Programs then reviews the request, approves the waste determination, and picks up the waste from the requestor. The waste is then segregated by types and lab packed or bulked for shipment. The waste is then shipped for disposal by a Duke approved contractor. Universal wastes are segregated by type such as light bulbs or batteries, packaged, and shipped for recycling by a Duke approved contractor.

A brief description of any significant hazardous material release incidents during the previous three years, including volume, impact and response/remediation:

Duke has not had a significant hazardous materials release within the last three years.

A brief description of any inventory system employed by the institution to facilitate the reuse or redistribution of laboratory chemicals:

OESO has developed the Chemical Exchange Program to aid Duke University researchers in reducing the need to purchase chemicals while increasing the reuse of unused or partially used chemicals between laboratories. Using exchange chemicals can also reduce laboratory operating costs and disposal costs. The Chemical Exchange Program site operates similar to an online bulletin board. You will need to log onto the site using your Win\Duke user name and password. You can then post what chemicals you would like to exchange or

browse the other posts. If you find a chemical that interests you, simply post a reply on the board and work out the exchange.

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish all electronic waste generated by the institution?:

Yes

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish electronic waste generated by students?:

Yes

A brief description of the electronic waste recycling program(s):

Duke University and Health System has a formalized program in place to recycle, refurbish and reuse all electronic waste generated by the university and health system administrative areas. All university and health system-purchased electronics must flow through the Surplus Property Program at end-of-life. The items are collected daily and transported to various facilities for donation, wiping or recycling. Computers and data-containing items that do not pass Department of Defense wiping standards are transported via secure vehicle, to a local electronics recycler. The destruction of these items is then witnessed by university staff, resulting in a fine, gravel-like metal mixture that is then recycled by metal type.

Electronics in good repair are donated to internal university and health system departments, as well as the local school system and hundreds of area non-profit groups. In FY14, 444,088lbs of e-waste was recycled from Duke institutional sources.

Students are encouraged to dispose of any unwanted electronics with Duke Recycles or the City of Durham. If you have access to a vehicle, Duke Recycles encourages all students to use the information provided for Durham City Residents to dispose of electronics. Annual E-waste Recycling Days often give students, faculty and staff an opportunity to dispose of personal electronics responsibly on campus well.

http://sustainability.duke.edu/campus_initiatives/waste/ewaste.html

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

By strategically selecting a local electronics recycling firm, it is ensured that the electronic waste is recycled responsibly and is never resold or exported. Our contracted, local vendor has the following certifications: R2, eStewards, GreenPlus, EPRA, ISO9001:2008, ISO14001:2004

The website URL where information about the institution's hazardous and electronic-waste recycling programs is available:

<http://www.safety.duke.edu/LabSafety/HazWaste.htm>

Water

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

Credit
Water Use
Rainwater Management
Wastewater Management

Water Use

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has reduced its potable water use per weighted campus user compared to a baseline.

Part 2

Institution has reduced its potable water use per gross square foot/metre of floor area compared to a baseline.

Part 3

Institution has reduced its total water use (potable + non-potable) per acre/hectare of vegetated grounds compared to a baseline.

Submission Note:

GSF #'s exclude parking decks that do not have water infrastructure

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

Level of water risk for the institution's main campus:

Medium to High

Total water use::

	Performance Year	Baseline Year
Total water use	439,713,745 Gallons	645,306,519 Gallons

Potable water use::

	Performance Year	Baseline Year
Potable water use	419,713,745 Gallons	645,306,519 Gallons

Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
Number of residential students	5,300	4,640
Number of residential employees	0	0
Number of in-patient hospital beds	957	957
Full-time equivalent enrollment	14,850	13,002
Full-time equivalent of employees	30,472	22,597
Full-time equivalent of distance education students	0	0

Gross floor area of building space::

	Performance Year	Baseline Year
Gross floor area	15,447,892 <i>Square Feet</i>	13,471,306 <i>Square Feet</i>

Area of vegetated grounds::

	Performance Year	Baseline Year
Vegetated grounds	568 <i>Acres</i>	568 <i>Acres</i>

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	July 1, 2013	June 30, 2014
Baseline Year	July 1, 2005	June 30, 2006

A brief description of when and why the water use baseline was adopted:

In October of 2007, The North Carolina Drought Management Advisory Council (NCDMAC) listed Durham County, along with 54 other counties, in the highest category of D4- Exceptional Drought. As a result of the extremely dry conditions experienced by the entire state, Duke University convened Water Conservation Steering & Working Groups, which analyzed all potable water use on campus. In order, to measure progress since this point, Duke adopted fiscal year 2005-2006 as our baseline for this utility.

Water recycled/reused on campus, performance year:

20,000,000 *Gallons*

Recycled/reused water withdrawn from off-campus sources, performance year:

A brief description of any water recovery and reuse systems employed by the institution:

A new reclamation pond will collect rainwater and runoff from 22 percent of the main campus area for use in a nearby chilled water plant, which pumps water across campus to cool buildings. The pond is expected to save about 100 million gallons of potable water a year.

Condensation in University, Medical Center and Health System cooling systems is reclaimed for use in Duke's Chilled Water Plant's cooling towers. Cooling tower blowdown water is sent through an RO system and reused in cooling towers.

Water from the Asiatic Arboretum pond in Sarah P. Duke Gardens is used to water seasonal plants in the terrace beds of the Gardens. Additionally, in the Charlotte Brody Discovery Garden at Duke Gardens, rainwater is collected to water the surrounding landscape. Duke Gardens staff have also hosted workshops focused on rainwater harvesting at home.

The Fitzpatrick Center for Interdisciplinary Engineering, Medicine and Applied Sciences (FCIEMAS), which opened in 2004, has a 70,000-gallon cistern underground to collect rainwater that is used to irrigate the nearly two-acre complex.

Duke has multiple cisterns installed across campus that collectively hold approximately 260,000 gallons of stormwater. Water from cisterns is used primarily for irrigation.

All irrigation water used on Duke's golf course is non-potable stormwater, which is collected from ponds on site.

A brief description of any water metering and management systems employed by the institution:

Water meters currently track the water consumption from ~ 90% of campus.

A brief description of any building retrofit practices employed by the institution, e.g. to install high efficiency plumbing fixtures and fittings:

see below

A brief description of any policies or programs employed by the institution to replace appliances, equipment and systems with water-efficient alternatives:

see below

A brief description of any water-efficient landscape design practices employed by the institution (e.g. xeriscaping):

Landscaping at Duke University is designed in a way to create a natural environment that is not dependent on water. Drought-tolerant plants and green roofs on campus with succulents are significant examples of these efforts. Ornamental stones are used to hold water, manage runoff, avoid rutting, and prevent weeds. These projects are self-sufficient once they are established, making them an economically efficient investment in sustainable practices.

In the Duke Gardens, water conservation is a high priority and xeriscaping plays a large role in plant decisions. Plants are preferred that require little irrigation once established, and plants that need more water are sited appropriately for efficient water use. Proper mulching is also a standard procedure for all planting areas.

A brief description of any weather-informed irrigation technologies employed by the institution:

Rain sensors are an ordinance in the city of Durham. After a quarter inch of rain, programmed irrigation systems at Duke University shut down. The Duke Gardens and the new Duke Comprehensive Cancer Center site have Smart Controllers for their irrigation systems. The irrigation system for the Doris Duke Center is currently controlled by a 'smart' control valve. This system has sensors that respond to recent rainfall and adjusts the duration of irrigation accordingly based on soil moisture.

Where feasible, Duke University Grounds and Sarah P. Duke Gardens use drip irrigation to further conserve water used for landscape irrigation.

A brief description of other water conservation and efficiency strategies employed by the institution:

Recent Initiatives

Conservation measures identified by a water audit of 6 buildings in 2012 are expected to produce an 8 million gallon reduction in water consumption each year at Duke. A new reclamation pond will collect rainwater and runoff from 22 percent of the main campus area for use in a nearby chilled water plant, which pumps water across campus to cool buildings. The pond is expected to save about 100 million gallons of potable water a year. Duke is also helping to improve the watershed it relies on through a stream restoration project on campus.

Sustained Conservation

Through dedicated efforts on campus, Duke reduced its water use by 50 percent month over month from the previous year during the drought. In the years following the drought, there has been an estimated sustained reduction in water consumption of 35 percent. While many of the measures below were first initiated during the drought, they continue to contribute to sustained water conservation on campus.

Conservation Measures – Buildings

- Installed over 3,000 low-flow aerators on lavatories
- Installed over 3,000 low-flow flush valves on urinals and toilets
- Installed over 500 low-flow shower heads
- Corrected single pass cooling on lab equipment
- Installed hand sanitizers in residential hall bathrooms, kitchens, laundry room and common areas
- Installed 200 new high efficiency front load washing machines
- Modified sterilizers at all Duke University Medical Center facilities
- Performed a water audit on campus buildings
- LEED green building commitment

Conservation Measures – Central Plants

- Piped the reclaimed reverse osmosis water (RO) and air handler unit (AHU) condensate from campus buildings to use for make-up water in the Chilled Water Plant cooling towers
- Installed a RO system on the cooling tower blowdown to clean this water and reuse in the cooling towers
- Drilled two wells to provide tower make up water
- Pumping water out of the creek for cooling tower make up
- Installed a condensate transfer system to move condensate between East and West Steam Plants
- Alternate sources of water accounted for over 40 million gallons of water (33%) in FY10 at Chilled Water Plant 2

Reclaimed Water Conservation Measures – Irrigation

- Installed drought-tolerant landscaping on campus
- Designed temporary system to irrigate essential athletic fields that involves the use of reclaimed water. Tanks installed under the bleachers at Soccer/Lacrosse Stadium
- Installed cisterns to collect water for watering of Williams Field
- Increased the size of irrigation ponds on golf course to allow for more natural water storage

Conservation Measures – Educational and Community

- Supplied the University and Medical Center staff, employees and students with 10,000 free low flow shower heads for their homes (total savings of ~73 million gallons of water)
- Raise water conservation awareness by strategically placing signs at decision-making points like faucets, showers, water fountains and toilets
- Several of the monthly Green Devil Challenges have focused on water conservation

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

http://sustainability.duke.edu/campus_initiatives/water/conservation.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution uses Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for 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 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 rainwater runoff impacts consistently during new construction. Implementing a strategy or strategies for only one new development project is not sufficient for Part 1 of this credit.

Part 2

Institution has adopted a rainwater/stormwater management policy, plan, and/or strategies that mitigate the rainwater runoff impacts of ongoing campus operations and treat rainwater as a resource rather than as a waste product.

The policy, plan, and/or strategies address both the quantity and quality (or contamination level) of rainwater runoff through the use of green infrastructure. 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 Part 2 of this credit.

Policies adopted by entities of which the institution is part (e.g. state government or the university system) may count for both parts of 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 use Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects?:

Yes

A brief description of the institution's Low Impact Development (LID) practices:

University campus is divided into three areas: East Campus, Central Campus and West Campus and totals approximately 1,700 acres. The West Campus area encompasses approximately 600 acres and is generally bounded by public rights-of-way of Erwin Road, Cameron Boulevard, Duke University Road and Anderson Street. West Campus includes the Duke Medical Center, Administrative and Academic Buildings, Athletic Buildings and Playing Fields, Student Fields, Student Housing, Duke Gardens and forested conservation areas. The

East Campus area encompasses approximately 90 acres and is bounded by public rights-of-way of Broad Street, Main Street, Buchanan Boulevard and Markham Avenue.

The Duke University campus lies along the division line between two major river basins: the Neuse River Basin and the Cape Fear River Basin. The majority of the Duke Campus, including Duke Gardens, flows south into the Cape Fear River Basin. The majority of Duke's East Campus flows north to the Neuse River Basin.

The regulating authority for campus is the City of Durham. In 2004, Duke University submitted a Stormwater Impact Analysis (SIA) with the City of Durham and began to look at stormwater on a regional basis. The SIA model was originally divided into 48 sub-basins and is updated with each project on campus. The SIA model is a cover conditions model and is based on soil type from the Durham County soil survey information. Ultimately each sub-basin was analyzed and assigned a CN value. Cover conditions are updated with each project and CN values are calculated to determine impervious cover impacts or the need for detention.

There have been many updates to the original 2004 SIA that added specific water quality requirements for each river basin. In addition to detention, ordinance updates in 2009 and 2010 outlined requirements for the 1-year storm analysis for the whole campus. This update required the original 48 sub-basins to be further sub-divided into 76 sub-basins for the Water Quality Model. The City of Durham also has specific Water Quality Control requirements for Total Suspended Solids, Nitrogen and Phosphorus based on established thresholds for each river basin.

Duke's stormwater facilities consist of the following:

- Numerous streams and open channels: All streams have 50-ft naturally vegetated buffer with a 10-ft "no build" zone.
- Over 250,000 gallons of cisterns-CIEMAS, CAE, Williams Field, SMART House, PG9 and DMP
- Multiple ponds and bioretention areas-Gardens, Golf Course, Smith Warehouse, SMART House, Faculty Club, and Learning Center
- A "SWAMP": Stream and Wetland Assessment Management Park located on south side of West Campus
- Reclamation Pond: Supply approximately 100 million gallons/year to Central Chiller Plant and overall reduction of stormwater volume and water quality treatment.

Has the institution adopted a rainwater/stormwater management policy, plan, or strategies that mitigate the rainwater runoff impacts of ongoing campus operations through the use of green infrastructure? :

Yes

A brief description of the institution's rainwater/stormwater management policy, plan, and/or strategies for ongoing campus operations:

Duke analyzes the impacts of each individual project with a Stormwater Impact Analysis (SIA) model. Projects are analyzed on a pre and post condition for specific stormwater volume impacts of the 2 and 10 year storm at Duke's property line and the 1 year water quality impacts and protection of natural streams on Campus. Stormwater facilities are designed based on the results of this analysis.

A brief description of any rainwater harvesting employed by the institution:

Duke has installed over 250,000 gallons of cisterns across campus. The majority of these systems are used for landscape irrigation or athletic field watering. Duke has also installed a grey water system at the newly constructed Environmental Hall for toilet flushing. Additionally, the Duke Reclamation Pond will come on line in the spring of 2015. This pond will provide approximately 100 million gallons/year of non-potable water to the Chilled Water Plant #2. This pond will provide an overall volume reduction for the 1, 2 and 10 year storm, act as a stormwater harvesting device with water quality benefits/nutrient reduction and reduce demand on the City's water system. This pond promotes Duke's Climate Action Plan and the overall water conservation efforts.

Rainwater harvested directly and stored/used by the institution, performance year:

350,000 Gallons

A brief description of any rainwater filtering systems employed by the institution to treat water prior to release:

Duke has multiple Bioretention cells designed to treat and filter water prior to entering the natural environment. Projects that have incorporated Bioretention cells for stormwater treatment are as follows:

- Home Depot Smart House (2 Bioretention Cells)
- Learning Center
- PG 9 (2 Bioretention Cells)
- Marine Lab
- Faculty Club (2 Bioretention Cells)

Additionally, Duke maintains a 50-ft natural vegetated buffer on all streams. The naturally vegetated areas slow stormwater runoff and absorb water and pollutants.

A brief description of any living or vegetated roofs on campus:

University Hospital has a lobby-level green roof in the courtyard. Included in the green roof are test plots and sites for green roof plants and mosses. (

http://www.dukehealth.org/health_library/health_articles/green_roof

)

The green roof atop the Home Depot Smart Home insulates the home from the cold of winter and the heat of summer. The roof's soil also pre-filters water that passes throughout it, removing pollutants picked up from the atmosphere.

(

<http://sustainability.duke.edu/academics/research/smarthouse.html>

)

The French Family Science Center roof includes 15,000 square feet of sod to filter rainwater and cool the building. (

http://sustainability.duke.edu/news_events/items/2007_10_30Buildings.html

)

A brief description of any porous (i.e. permeable) paving employed by the institution:

A group of Duke University students worked with KB Industries for their Markets and Management Capstone Course to install a KBI Flexi™-Pave demonstration site under two parking space reserved for Duke Zipcars outside of the Bryan Center. The Flexi™-Pave is made from recycled tires. (

http://sustainability.duke.edu/news_events/items/2009_04_06FlexiProcessDuke.html

)

A brief description of any downspout disconnection employed by the institution:

Duke has employed the use of above and below ground cisterns to disconnect downspouts. This captured volume of water is mainly used for irrigation of grass and landscaping. The following projects have installed cisterns:

- Environment Hall: 500 gallon grey water system
- Environment Hall: 25,000 gallon irrigation system
- Delta Smart House: 4,400 gallons
- Ciemas: 71,000 gallon irrigation system
- Parking Garage #9: 20,000 gallons irrigation system
- DMP/CC: 100,000 gallon irrigation system
- Williams Field: 40,000 gallon irrigation system

A brief description of any rain gardens on campus:

Duke has multiple Bioretention cells designed to treat and filter water prior to entering the natural environment. Projects that have incorporated Bioretention cells for stormwater treatment are as follows:

- Home Depot Smart House (2 Bioretention Cells)
- Learning Center
- PG 9 (2 Bioretention Cells)
- Marine Lab
- Faculty Club (2 Bioretention Cells)

Additionally, Duke maintains a 50-ft natural vegetated buffer on all streams. The naturally vegetated areas slow stormwater runoff and absorb water and pollutants.

A brief description of any stormwater retention and/or detention ponds employed by the institution:

Duke has multiple retention ponds on campus to control stormwater runoff. One large project is SWAMP: Stream and Wetland Assessment Management Park. (SWAMP) is located on the south side of Duke's campus on a restored section of Sandy Creek in the Cape Fear River Basin. Duke's Nicholas School of the Environment, Wetland Center, and the Pratt School of Engineering undertook the SWAMP ecosystem project as a research and laboratory project. SWAMP system consists of restoration of degraded streams, construction of a stormwater reservoir, and construction of a treatment wetland area. Components work as an overall system to treat stormwater runoff from approximately 1,361 acres to address the water quality problems in the Upper Sandy Creek watershed. This includes approximately 253 acres of total impervious surface (Duke & non-Duke)

Reclamation Pond: The total drainage area to the pond is 265 acres and 135 impervious acres. Drainage area represents approximately 22% of total Campus. The overall benefits are as follows:

Benefits:

Water volume reduction

- 1-year storm (64% reduction)
- 2-year storm (54% reduction)
- 10-year storm (40% reduction)

Will act as a stormwater harvesting device
Water quality & nutrient reduction (N, P, TSS)
Reduced demand on the City's water system
Promotes water conservation efforts
Restoring approximately 3000' linear feet of degraded stream section
Educational Benefits: Informational signs will serve as educational tool for the environment

A brief description of any bioswales on campus (vegetated, compost or stone):

Duke has established a proactive approach to natural resources on campus. Duke has restored approximately 2 miles of stream in connection with the SWAMP project and Reclamation Pond project. These were highly degraded streams as a result of years of development in an urbanized setting. These streams were essentially disconnected from the flood plain prior to the restoration efforts. Duke established this approach as a reinvestment in our natural resources and holistic approach to stormwater on campus with a focus on watershed based design techniques.

A brief description of any other rainwater management technologies or strategies employed by the institution:

The University uses cisterns and stormceptors on campus for TSS removal. The university also has begun SWAMP: Stream and Wetland Assessment Management Park. (SWAMP) is located on the south side of Duke's campus on a restored section of Sandy Creek in the Cape Fear River Basin. Duke's Nicholas School of the Environment, Wetland Center, and the Pratt School of Engineering undertook the SWAMP ecosystem project as a research and laboratory project. SWAMP system consists of restoration of degraded streams, construction of a stormwater reservoir, and construction of a treatment wetland area. Components work as an overall system to treat stormwater runoff from approximately 1,361 acres to address the water quality problems in the Upper Sandy Creek watershed. This includes approximately 253 acres of total impervious surface (Duke & non-Duke)

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- 2-year storm (54% reduction)
- 10-year storm (40% reduction)

Will act as a stormwater harvesting device
Water quality & nutrient reduction (N, P, TSS)
Reduced demand on the City's water system
Promotes water conservation efforts
Restoring approximately 3000' linear feet of degraded stream section
Educational Benefits: Informational signs will serve as educational tool for the environment

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

http://sustainability.duke.edu/campus_initiatives/water/stormwater.html

Wastewater Management

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution's wastewater is handled naturally on campus or in the local community. Natural wastewater systems include, but are not limited to, constructed treatment wetlands and Living Machines. To count, wastewater must be treated to secondary or tertiary standards prior to release to water bodies.

This credit recognizes natural handling of the water discharged by the institution. On-site recycling/reuse of greywater and/or blackwater is recognized in *OP 26: Water Use*.

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

Total wastewater discharged:

228,651,147 Gallons

Wastewater naturally handled:

0 Gallons

A brief description of the natural wastewater systems used to handle the institution's wastewater:

The website URL where information about the institution's wastewater management practices is available:

Planning & Administration

Coordination, Planning & Governance

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging students, staff and faculty in governance. Staff and other resources help an institution organize, implement, and publicize sustainability initiatives. These resources provide the infrastructure that fosters sustainability within an institution. Sustainability planning affords an institution the opportunity to clarify its vision of a sustainable future, establish priorities and help guide budgeting and decision making. Strategic planning and internal stakeholder engagement in governance are important steps in making sustainability a campus priority and may help advocates implement changes to achieve sustainability goals.

Credit
Sustainability Coordination
Sustainability Planning
Governance

Sustainability Coordination

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has at least one sustainability committee, office, and/or officer 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 officer focus on sustainability broadly (i.e. not just one sustainability issue, such as climate change) and cover the entire institution.

An institution that has multiple committees, offices and/or staff with responsibility for subsets of the institution (e.g. schools or departments) may earn points for this credit if it has a mechanism for broad sustainability coordination for the entire campus (e.g. a coordinating committee or the equivalent). A committee, office, and/or officer that focuses on just one department or school within the institution does not count for this credit in the absence of institution-wide coordination.

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

Does the institution have at least one sustainability committee, office, and/or officer that focuses on sustainability broadly and covers the entire institution?:

Yes

A brief description of the activities and substantive accomplishments of the committee(s), office(s), and/or officer(s) during the previous three years:

Duke is committed to a more sustainable university. Listed below are two substantive accomplishments of Sustainable Duke. Sustainable Duke continues to work diligently on expanding projects related to buildings, campus farm, dining, energy, land management, purchasing and transportation.

Duke is committed to expanding its green buildings on campus. In 2011, Duke's Campus Sustainability Committee (CSC) drafted a LEED™ Plus policy that includes:

A documented process for LEED™ scorecard development with energy efficiency approvals;

Energy targets by building tech rating;

Measurement, verification and reporting of energy consumption versus energy modeling; and

A requirement that all value engineering efforts focus on areas outside of energy savings and that any proposed value engineering items within this category shall be accompanied with a full life cycle cost analysis.

In addition, Duke is committed to sustainable agriculture. The Duke Campus Farm is a long-term project to construct a fully functional and educational farm. The farm aspires to engage students with food issues, increase sustainability at Duke, and influence campus culture to reconnect students with their food. In August 2011, the first full-time farm manager was hired, supported by Sustainable Duke and Duke Dining. An additional Farm Fellowship position was created in 2012. The farm continues to expand fruit and vegetable operations

with each season.

Does the institution have at least one sustainability committee?:

Yes

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

The Duke University Campus Sustainability Committee (CSC), a standing committee appointed by the President, is responsible for making recommendations to guide campus sustainability policies, championing these sustainability initiatives and communicating them to each member's respective constituencies to foster a more sustainable campus community.

For 2014-2015, the CSC will continue to expand the current Climate Action Plan (CAP) to a broader Sustainability Strategic Plan (SSP), which will include targets and policies regarding other elements of sustainability such as water, recycling/waste reduction, food, supply-chain management and land use. The CSC will continue to monitor and report progress on emissions reductions and other CAP milestones, as well as take steps to engage the Duke community in these efforts.

2014-2015 Subcommittees

Energy & Water

Transportation

Education

Communications

Carbon Offsets

Natural Resources

Materials Management

Food

Members of each committee, including affiliations and role (e.g. staff, student, or faculty):

2014-2015 CSC Membership

Faculty (12)

Alan Townsend, Dean of the Nicholas School of the Environment (Co-Chair)

Charlotte Clark, Nicholas School of the Environment

Mark Goodacre, Religion, Arts & Sciences

Jack Soll, Fuqua School of Business

William Pizer, Sanford School of Public Policy

Joel Meyer, Nicholas School of the Environment

Tom Taylor, Sanford School of Public Policy

Justin Wright, Biology

Claudia Gunsch, Civil and Environmental Engineering

Terry Yoshizumi, Radiology

Ryke Longest, Law, Duke Environmental Law and Policy Clinic

Tim Profeta, Director of Nicholas Institute for Environmental Policy Solutions, Sanford

Administrators (12)

Tallman Trask, Executive Vice President (Co-chair)

Tavey Capps, Environmental Sustainability Director

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

John Noonan, Associate Vice President of Facilities
Robert Guerry, Director, Medical Center Engineering and Operations
Charles Adair, Program Manager, Duke Carbon Offsets Initiative
Joe Gonzalez, Acting Director of Residential Life and Housing Services
Anne Light, Special Assistant to the EVP
Casey Roe, Environmental Sustainability Outreach Coordinator
Mark Hough, Campus Landscape Architect
Albert Scott, Senior Director Housekeeping, Recycling, Sanitation and Grounds
Leanora Minai, Director of Communications, Office of Communication Services
Alison Carpenter, Transit Planner

Students (8)

Graham Turbayne, Environmental Alliance
Danielle Su, Environmental Alliance
Neil Matouka, Duke University Greening Initiative
Rebecca Siebenaler, Duke University Greening Initiative
Scott Winton, GPSC representative
Jared Hodes, GPSC representative
Jason Chen, DSG representative
Callie Roberts, DSG representative

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

http://sustainability.duke.edu/climate_action/CSC.html

Does the institution have at least one sustainability office that includes more than 1 full-time equivalent (FTE) employee?:

Yes

A brief description of each sustainability office:

Duke University seeks to attain and maintain a place of leadership in all that we do. This includes leadership in environmental stewardship and sustainability on our campus, in our medical institutions, and in the larger community of which we are a part.

We are committed to examining the actual and potential environmental impacts associated with our activities and services in order to continually improve environmental performance.

Sustainable Duke, under the Office of the Executive Vice President, is charged with strategic planning to reduce Duke's overall environmental footprint, educating the campus community regarding institutional and individual impacts and developing programs to positively influence campus sustainability behaviors.

Full-time equivalent (FTE) of people employed in the sustainability office(s):

5.50

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

<http://sustainability.duke.edu/index.php>
Campus Sustainability Data Collector | AASHE

Does the institution have at least one sustainability officer?:

Yes

Name and title of each sustainability officer:

Tavey M. Capps

A brief description of each sustainability officer position:

Plan, direct and implement programs and activities that examine actual and potential environmental impacts associated with campus activities and services to ensure that Duke University maintains a place of leadership in environmental stewardship and sustainability.

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

<http://sustainability.duke.edu/index.php>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has current and formal plans to advance sustainability. The plan(s) cover one or more of the following areas:

- Curriculum
- Research (or other scholarship appropriate for the institution)
- Campus Engagement
- Public Engagement
- Air & Climate
- Buildings
- Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Diversity & Affordability
- Health, Wellbeing & Work
- Investment
- Other

The plan(s) may include measurable objectives with corresponding strategies and timeframes to achieve the objectives.

The criteria may be met by any combination of formally adopted plans, for example:

- Strategic plan or equivalent guiding document
- Campus master plan or physical campus plan
- Sustainability plan
- Climate action plan
- Human resources strategic plan
- Diversity plan

For institutions that are a part of a larger system, plans developed at the system level are eligible for this credit.

Submission Note:

Duke's sustainability progress report can be found:

<http://sustainability.duke.edu/about/reports/ssp2014.pdf>

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

Does the institution have current and formal plans to advance sustainability in the following areas? Do the plans include measurable objectives?:

	Current and Formal Plans (Yes or No)	Measurable Objectives (Yes or No)
Curriculum	Yes	Yes
Research (or other scholarship)	Yes	No
Campus Engagement	Yes	Yes
Public Engagement	Yes	Yes
Air and Climate	Yes	Yes
Buildings	Yes	Yes
Dining Services/Food	Yes	Yes
Energy	Yes	Yes
Grounds	Yes	No
Purchasing	Yes	No
Transportation	Yes	Yes
Waste	Yes	Yes
Water	Yes	Yes
Diversity and Affordability	Yes	No

Health, Wellbeing and Work	---	---
Investment	Yes	No
Other	---	---

A brief description of the plan(s) to advance sustainability in Curriculum:

Incorporate sustainability into the depth and breadth of every student’s experience by including core concepts of sustainability in every applicable field and research opportunity and by using the campus as a living laboratory for sustainability.

Offer 5th Trillium Workshop in January 2015 and deepen sustainability education in classes taught by current Fellows

Host the new Unpark Yourself Challenge alternative transportation competition for employees and graduate students in spring 2015.

The measurable objectives, strategies and timeframes included in the Curriculum plan(s):

Continued development of an undergraduate, experiential certificate in Sustainability Engagement that includes 450 hours of experiential learning outside the classroom.

Initiated pilot of an international Sustainability Literacy Test on campus to assess changes in undergraduate sustainability literacy and skill development at the beginning and end of their Duke careers.

Over 400 courses with sustainability-related content were offered to students in academic year 2013-14.

Continued to train faculty to integrate sustainability into their courses with the Trillium Program. As of FY14, 9 external participants and 54 Duke Trillium Fellows have completed the workshop

Expand the Learning & Organizational Development sustainability workshop series for employees to specialized topics such as alternative transportation and carbon offsets.

Accountable parties, offices or departments for the Curriculum plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Research (or other scholarship):

Increase existing engagement with faculty and students by participating in additional academic research projects on greenhouse gas reduction related topics. Opportunities include: Bass Connections, group Master’s projects, in-class research projects, and more.

The measurable objectives, strategies and timeframes included in the Research plan(s):

In 2013, Sustainable Duke worked with the Office of Research Support to utilize the Sponsored Projects Systems Database to search by key word for sustainability related research funded in the past three years. This identified research in numerous departments across Duke focusing on a myriad of sustainability themes.

Accountable parties, offices or departments for the Research plan(s):

Research has been completed with...

Duke Lemur Center

Organization for Tropical Studies

Duke University Wetland Center

Center for Energy, Development, and the Global Environment

Duke University Energy Initiative

Center for the Advancement of Social Entrepreneurship

Duke Center for Civic Engagement

Nicholas Institute for Environmental Policy Solutions

Center on Global Change

Sustainable Apparel Coalition

Center on Globalization, Governance & Competitiveness

Duke Global Health Institute

Hubert-Yeargan Center for Global Health

Duke Environmental Law & Policy Forum Journal

A brief description of the plan(s) to advance Campus Engagement around sustainability:

The Duke University campus offers many living laboratories for diverse educational experiences in sustainability. Students can select from a list of on-campus and community sustainability project ideas in energy, water, recycling, transportation and carbon offsets.

The measurable objectives, strategies and timeframes included in the Campus Engagement plan:

Developed an updated Sustainability Communications Plan to build on previous success, make progress more visible and continue to influence positive behavior changes across campus.

Accountable parties, offices or departments for the Campus Engagement plan(s):

Sustainable Duke

A brief description of the plan(s) to advance Public Engagement around sustainability:

Through the Duke Carbon Offsets Initiative, which was created in 2009, Duke is working with the local community to find carbon offset opportunities.

The DCOI has developed a portfolio approach to generating carbon offsets, focusing on

1. Methane capture projects from North Carolina swine farms through the installation of innovative animal waste management systems.

Loyd Ray Farms is the pilot program and current core of DCOI's work;

2. Community-based energy efficiency projects, currently being piloted with Duke University students, faculty, and staff; and

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

3. The potential for carbon sequestration through forestry and land conservation-based projects

The measurable objectives, strategies and timeframes included in the Public Engagement plan(s):

To meet its goal of climate neutrality by 2024, Duke University will need to offset approximately 185,000 tons of carbon dioxide equivalent-emissions per year, starting in 2024.

Accountable parties, offices or departments for the Public Engagement plan(s):

Duke Carbon Offsets Initiative

A brief description of the plan(s) to advance sustainability in Air and Climate:

Duke also continues to implement the campus Climate Action Plan (CAP) to reach carbon neutrality by 2024. The FY14 greenhouse gas inventory shows significant progress towards this goal with a 21% reduction of overall GHG emissions from a 2007 baseline.

The measurable objectives, strategies and timeframes included in the Air and Climate plan(s):

Created a five-year retrospective report on the Duke Carbon Offsets Initiative (DCOI) and recommendations for moving forward. With 10 years left before 2024, continued exploration of local offset opportunities, financial planning for these projects and leveraging of Duke's ability to influence local carbon offsets development is essential.

Duke Carbon Offsets Initiative completed evaluation of a pre-pilot energy efficiency program and found that participating houses reduced energy use by an average of 13%. Pre-pilot experience has informed a new Employee Energy Efficiency Pilot program that will assist employees in completing energy saving retrofits on their homes and assess the offset potential of these efforts.

DCOI continued to collaborate with the City and County of Durham to develop an Urban Forest Carbon Offsets Program where Duke would fund local planting projects through the purchase of carbon offsets.

Accountable parties, offices or departments for the Air and Climate plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Buildings:

Finalized a Duke green building guideline that focuses on energy and water efficiency. The intent of this program is to guide design and construction teams in the development of new buildings that operate more efficiently than the existing building stock, and to exceed the current code requirements. Duke currently has 29 LEEDTM certified buildings and 9 buildings registered for future certification; this represents 27% of Duke University's total square footage.

The measurable objectives, strategies and timeframes included in the Buildings plan(s):

In 2011, Duke's Campus Sustainability Committee (CSC) drafted a LEED™ Plus policy that includes:

A documented process for LEED™ scorecard development with energy efficiency approvals;

Energy targets by building tech rating;

Measurement, verification and reporting of energy consumption versus energy modeling; and

A requirement that all value engineering efforts focus on areas outside of energy savings and that any proposed value engineering items within this category shall be accompanied with a full life cycle cost analysis.

Accountable parties, offices or departments for the Buildings plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Dining Services/Food:

Developed a draft definition of sustainable food for Duke in six product categories through assessment of current internal efforts and best practices from peer institutions. Developed broad guidelines for “best practices” in setting and maintaining sustainable sourcing goals in dining services at Duke.

As the Campus Sustainability Committee moves forward with this effort to hopefully determine quantifiable goals around sustainable food procurement it will be increasingly important to collaborate with campus stakeholders and local growers to be innovative in mitigating potential cost increases and demands on staff time. Duke will also emphasize communication of these efforts through educational labeling of products and incorporating sustainable food into coursework and research on campus.

Each year since 2010, students in Sustainable Duke’s Students for Sustainable Living program have selected winning eateries to be recognized with a Green Dining Award at Duke.

The measurable objectives, strategies and timeframes included in the Dining Services/Food plan(s):

While hosting over 2,000 volunteer hours and many campus engagement opportunities such as Project Build and Alternative Spring Break, the Duke Campus Farm developed a 5-year strategic plan encompassing visions and goals related to both production and education.

Accountable parties, offices or departments for the Dining Services/Food plan(s):

Duke Campus Farm, Sustainable Duke

A brief description of the plan(s) to advance sustainability in Energy:

Finalized a Duke green building guideline that focuses on energy and water efficiency. The intent of this program is to guide design and construction teams in the development of new buildings that operate more efficiently than the existing building stock, and to exceed the current code requirements. Duke currently has 29 LEED™ certified buildings and 9 buildings registered for future certification; this represents 27% of Duke University’s total square footage.

The measurable objectives, strategies and timeframes included in the Energy plan(s):

Achieve a 15% reduction in energy in existing buildings by 2030.

Ensure all new construction and major renovations are certified with a goal of LEED™ Silver and meet Duke's green building guidelines for energy and water efficiency.

Focus water-reduction strategies on the top 20 buildings that account for 70% of the water use at Duke. Ensure that buildings, landscapes and natural areas are developed and sustained to create a campus community that conserves natural resources, restores environmental quality and protects biodiversity.

Implemented School of Medicine energy efficiency measures such as reduction of building air changes, fume hood velocity and LED lighting upgrades. These conservation measures produced \$2 million in savings in FY14.

Overall energy greenhouse gas emissions are down 32% from a 2007 baseline. Existing building energy use is down 8% from 2007, and Duke continues to increase campus energy efficiency through projects such as replacing outdoor site lighting and athletic facilities with LED technology.

Accountable parties, offices or departments for the Energy plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Grounds:

Duke has committed significant resources, education and personnel to making the college buildings and grounds sustainable for future generations. The sustainability of the landscape requires planning at all stages of the review process, implementation of plans and a complete comprehensive management plan for maintenance

Duke is finding new and innovative ways to maintain the landscape including using environmentally-safe equipment and processes, recycling all reusable materials, capturing water for future use and preventing unnecessary runoff, using permeable vs. non-permeable materials, all while being cognizant of and consistent with campus planning and design objectives.

Goals include:

Develop and implement irrigation system management plan

Install additional collection systems for rainwater and condensate

Update current maintenance vehicles to use alternative fuels

Install solar panels to charge electric vehicles

Use organic fertilizers more

Continue to educate workforce

Coordinate all aspects of the planning and installation process of landscape projects

Reuse all uncontaminated organic material generated by Duke

Implement tree protection policy

Continue to survey and document trees and tree health throughout grounds

GIS all major landscape

Update all metrics for landscape sites

The measurable objectives, strategies and timeframes included in the Grounds plan(s):

Duke is committed to conserving green space on campus. In the 2000 Master Plan, "conservation zones" were designated for protection on campus. Assets to be conserved include forested areas, fragile ecological areas, riparian corridors, the Sarah P. Duke Gardens and

central open spaces such as the historic quadrangles.

The plan also envisions the role for Duke as an integral part of the surrounding region's economy, environment and community fabric. In fulfilling this commitment to conserving green spaces on campus, Duke has supported downtown revitalization efforts through strategic redevelopment of historic buildings. Since 2004, the University has moved over 1,000 staff into the restored Smith Warehouse, the American Tobacco District and the Fuller Street Powerhouse Building.

Natural Heritage Areas Registry - Duke University has signed an agreement with the North Carolina Department of Environment and Natural Resources (DENR) to place 1,220 acres of Duke Forest in the Registry of Natural Heritage Areas, setting it aside from development and invasive research.

Accountable parties, offices or departments for the Grounds plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Purchasing:

Duke's Green Purchasing Program helps University purchasers and employees make environmentally responsible purchasing decisions to reduce negative effects on human health and the environment.

In July of 2004, Duke adopted a set of Environmentally Preferable Purchasing Guidelines (PDF) to reduce our environmental impact in six strategic areas:

- Source Reduction
- Forest Conservation
- Recycled Content
- Landscaping
- Energy & Water
- Toxics & Pollution

The measurable objectives, strategies and timeframes included in the Purchasing plan(s):

Revise Duke's current environmentally preferable purchasing policy to make it more accessible and useful for campus purchasers while exploring opportunities to further green Duke's supply chain.

Accountable parties, offices or departments for the Purchasing plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Transportation:

Created targeted transportation reports for individual schools at Duke to provide personalized outreach and alternative commute planning. Hired a part-time Transportation Demand Management Outreach Coordinator to assist with marketing and promotion of sustainable transportation programs at Duke. Continued to reduce single occupancy vehicle trips by employees in the University (including Schools of Medicine/Nursing) by 4% since 2012.

The measurable objectives, strategies and timeframes included in the Transportation plan(s):

Achieve a 5% reduction in single occupancy vehicle (SOV) trips by all Duke employees by 2018 from 2013 baseline. The University remains committed to the long-term mode share goal set in the CAP to decrease the campus drive alone rate to 45% by 2050.

Initiate a transit planning study with local and regional partners to identify service gaps and opportunities to improve level of service for Duke commuters. Improve targeted marketing and personal commute coaching to reach unique employee cohorts.

Accountable parties, offices or departments for the Transportation plan(s):

Sustainable Duke

A brief description of the plan(s) to advance sustainability in Waste:

Develop future roll-out options for expanding campus recycling and composting efforts. Expand Zero Waste efforts to campus athletic events.

Continue to evaluate the effectiveness and efficacy of several pilot waste reduction programs including post-consumer composting, mixed recycling, mini-trash bins and standardized waste stations in buildings.

The measurable objectives, strategies and timeframes included in the Waste plan(s):

Duke Recycles services nearly 1,600 recycling bins, collecting 17 different items. Deposit paper, newspaper and magazines, cardboard, bottles and cans, and plastics #1-7 in recycling bins around campus and help Duke prevent recyclable materials from entering landfills.

Today, Duke Recycles has become a necessary part of campus operation, with a staff of five full-time recyclers and several part-time student staff. This diverse team allows the Duke Recycles program to maintain its roots as a student-involved environmental organization.

Accountable parties, offices or departments for the Waste plan(s):

Duke Recycles

Arwen Buchholz, Duke's Recycling and Waste Reduction Coordinator

A brief description of the plan(s) to advance sustainability in Water:

Water efficiency retrofits have been completed in 15 campus buildings over the past two years. For both phases of the project, Duke expects savings to total 15 million gallons per year. Overall 43% reduction in potable water usage since 2006.

Conservation measures identified by a water audit of 6 buildings in 2012 are expected to produce an 8 million gallon reduction in water consumption each year at Duke. A new reclamation pond will collect rainwater and runoff from 22 percent of the main campus area for use in a nearby chilled water plant, which pumps water across campus to cool buildings. The pond is expected to save about 100 million gallons of potable water a year. Duke is also helping to improve the watershed it relies on through a stream restoration project on campus.

Recognizing the negative environmental and social impacts of bottled water, Duke University has recently undertaken several efforts to reduce consumption of single use bottled water on campus.

The measurable objectives, strategies and timeframes included in the Water plan(s):

Construction continued on the campus water reclamation pond, scheduled to be completed in early 2015. In addition to helping reduce Duke's reliance on potable water by 100 million gallons, the 5.5 acre pond will provide important new habitat areas to the campus and improve water quality downstream.

Accountable parties, offices or departments for the Water plan(s):

Sustainable Duke

A brief description of the plan(s) to advance Diversity and Affordability:

Under the auspices of the President, the Office for Institutional Equity provides institutional leadership in enhancing respectful, diverse and inclusive work and learning environments for the Duke Community. We provide a range of services that uphold values of equity and diversity, as well as support compliance efforts in the areas of equal opportunity, affirmative action and harassment prevention.

The measurable objectives, strategies and timeframes included in the Diversity and Affordability plan(s):

This "Diversity Toolkit" has been compiled as part of OIE's ongoing effort to provide resources to the whole Duke community, including all staff, faculty, and students across the University and the Health System. Each and every one of us carries responsibility for our workplace culture and educational climate at Duke. The toolkit can be used as an adjunct to the educational programs OIE already offers to departments and teams, or as a resource in developing strategies and plans to improve inclusion and engagement within a new initiative. The Diversity Toolkit provides links to publications (books, journals, reports, etc.), as well as links to electronic sources (websites, blogs, etc.). In the rapidly evolving field of diversity and inclusion, it is critically important that higher education and healthcare professionals keep abreast of research, new theories and approaches to diversity and inclusion, as well as strategies to enhance equity and high performance within the educational, healthcare and work environments of Duke.

Accountable parties, offices or departments for the Diversity and Affordability plan(s):

The Office for Institutional Equity

Other Diversity Resources Include:

Office for Institutional Equity

Center for Sexual and Gender Diversity

Center for Multicultural Affairs

International House

Jewish Life at Duke

Mary Lou Williams Center for Black Culture

Muslim Life

Women's Center

A brief description of the plan(s) to advance sustainability in Health, Wellbeing and Work:

The Duke Student Wellness Center is dedicated to fostering a living/learning environment on campus and within the surrounding community that encourages the full development of the individual as an engaged member of the community. Part of the Duke Student Wellness's Center is an emphasis on environmental wellness.

The measurable objectives, strategies and timeframes included in the Health, Wellbeing and Work plan(s):

Accountable parties, offices or departments for the Health, Wellbeing and Work plan(s):

Duke Student Wellness Center

A brief description of the plan(s) to advance sustainability in Investment:

Duke University's endowment is managed by DUMAC, LLC. DUMAC, LLC, also manages the employees' retirement pool and Duke University Health System's investments, and invests much of the University's working capital.

To provide guidance to DUMAC, LLC, Duke has established a process for addressing investments that raise moral or ethical issues. While the primary fiduciary responsibility of the Board of Trustees is to oversee the management of the University's investment assets to maximize return, the University is interested in maintaining socially responsible investments. As such, Duke University makes special considerations for moral and ethical issues raised by members of the University community with regard to investments. An example of such action was a resolution in 2008 that prohibits Duke from making future direct investment in companies engaged in business with the government of Sudan.

Sustainable Investment Highlights:

Several of the companies in which Duke is invested that produce exemplary environmental technologies are highlighted below:

A123 Systems – A123 Systems creates lithium ion batteries for electric cars and other applications, as well as energy storage systems for a smarter electricity grid.

SatCon Technology Corporation – SatCon Technology Corporation develops innovative power conversion solutions and provides system design services for utility-scale renewable energy plants.

1366 Technologies - With the mantra “solar at the cost of coal,” 1366 Technologies develops innovative manufacturing solutions for silicon cell manufacturers, including wafer and cell technologies that may cut the cost of installed solar power by more than fifty percent.

Additional areas of environmentally sustainable investments include, but are not limited to:

Greenhouse gas capture and carbon credit generation (coal mine methane and landfill gas capture)

Alternative energy sources (wind, hydro, biofuels, geothermal, solar, fuel cells)

“Smart Grid” technologies (energy consumption management software and solutions)

Recycling (soils, metals, rubber, biomass)

Consumer products (organic foods, recycling incentives, packaging, automobiles)

The measurable objectives, strategies and timeframes included in the Investment plan(s):

Accountable parties, offices or departments for the Investment plan(s):

DUMAC, LLC

A brief description of the plan(s) to advance sustainability in other areas:

The measurable objectives, strategies and timeframes included in the other plan(s):

Accountable parties, offices or departments for the other plan(s):

The institution's definition of sustainability:

Sustainability is defined as meeting the needs of the present without compromising the ability of future generations to meet their needs. This must be achieved in a manner that is ecologically sound, socially just, and economically viable.

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

Yes

A brief description of how the institution's strategic plan or equivalent guiding document addresses sustainability:

Duke is developing a Sustainability Strategic Plan as an extension of the Climate Action Plan to focus on a broader spectrum of areas within campus sustainability. The Sustainability Strategic Plan addresses sustainability topics including water conservation, recycling, and land management.

The Sustainability Strategic Plan Progress Report outlines the goals, progress and areas of future focus for four key areas: Emissions & Carbon Offsets, Infrastructure, Campus Operations, and Education & Engagement.

The website URL where information about the institution's sustainability planning is available:

<http://sustainability.duke.edu/about/reports/index.html>

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution's students participate in governance in one or more of the following ways:

A. All enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one student representative on the institution's governing body. To count, student representatives must be elected by their peers or appointed by a representative student body or organization.

And/or

C. Students have a formal role in decision-making in regard to one or more of the following:

- Establishing organizational mission, vision, and/or goals
- Establishing new policies, programs, or initiatives
- Strategic and long-term planning
- Existing or prospective physical resources
- Budgeting, staffing and financial planning
- Communications processes and transparency practices
- Prioritization of programs and projects

Part 2

Institution's staff participate in governance in one or more of the following ways:

A. All staff members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one non-supervisory staff representative on the institution's governing body. To count, staff representatives must be elected by their peers or appointed by a representative staff body or organization.

And/or

C. Non-supervisory staff have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Part 3

Institution's faculty participate in governance in one or more of the following ways:

A. All faculty members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one teaching or research faculty representative on the institution's governing body. To count, faculty representatives must be elected by their peers or appointed by a representative faculty body or organization.

And/or

C. Faculty have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Participatory or shared governance bodies, structures and/or mechanisms may be managed by the institution (e.g. committees, councils, senates), by stakeholder groups (e.g. student, faculty and staff committees/organizations), or jointly (e.g. union/management structures).

Structures or mechanisms adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as they apply and are adhered to by the institution.

Submission Note:

All information regarding the Graduate and Professional Student Council's involvement with the University's Committees.

<http://gpsc.duke.edu/committees/>

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

Do all enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

Yes

A brief description of the mechanisms through which students have an avenue to participate in one or more governance bodies:

Duke Student Government (DSG) is the official governing body of undergraduate students at Duke. DSG acts as the principal liaison between students and the Duke administration and oversees the funding and approval of student organizations on campus. DSG represents the student voice at Duke, lobbying for policies and programs that better the undergraduate experience.

The Graduate and Professional Student Council of Duke University (GPSC) is the umbrella student government organization for Duke's nine graduate and professional schools. Our purpose is to:

1. Represent and advocate on behalf of graduate and professional students at Duke University
2. Serve as a liaison among the student governments of the graduate and professional schools of the University
3. Serve as a liaison between graduate and professional students and the University Administration
4. Nominate graduate and professional student representatives to University committees; program events of interest to the graduate and professional student community; and financially support the programming of graduate and professional student groups.

Is there at least one student representative on the institution’s governing body who was elected by peers or appointed by a representative student body or organization?:

Yes

A brief description of student representation on the governing body, including how the representatives are selected:

In addition to the 37 trustees, the Board has four observers. These are selected by Duke Student Government, the Graduate and Professional Student Council, the Duke Alumni Association, and The Duke Endowment.

Duke University Trustee Observers as of July 1, 2014

Eugene W. Cochrane, Jr. (President, The Duke Endowment, Charlotte, NC)

Neil Kondamuri (DSG)

N. Shepard Moyle (DAA President)

Shannon K. O'Connor (GPSC)

Representatives are elected by their respective organizations through fair elections once a year

Do students have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	Yes
Communications processes and transparency practices	Yes
Prioritization of programs and projects	Yes

A brief description of the formal student role in regard to each area indicated, including examples from the previous three years:

Advisory Committee on Investment Responsibility: 2 student representatives. University body advisory to the President designed to monitor trends and activities in investment responsibility that have an impact on educational institutional investors, conduct research to

update Duke's files on companies, and provide analyses when requested by the President and provide other investment recommendations to the President.

Annual Fund Executive Committee: 1 student representative. Provides the staff of the Annual Fund with advice on fundraising and alumni relations in order to increase revenues of the annual fund toward the improvement of campus funding structures.

Athletic Council: 2 student representatives. Provides oversight of the athletic budget, promotes academic standards among athletes, promotes intercollegiate athletics and wellness programming, monitor Title IX compliance, makes recommendations for awards of financial assistance for athletics.

Recreation Facilities Liaison: 1 student representative. Works with the Recreational Facilities administration on graduate student concerns with these facilities.

University Priorities Committee: 1 student representative plus the GPSC President. Assesses university and academic priorities, ensuring that the University's annual and long-term budgets reflect these priorities.

Student Health Advisory Committee: 6 or 7 representatives. Provides feedback, support, and information regarding graduate and professional students' needs and concerns as related to both preventative and clinical health care provided by The Student Health Center. Examines benefits, premiums, and bids for student insurance plan. Actively support any suggestions, campaigns or new ideas which may result from the interaction of the committee and would benefit graduate and professional students as a whole.

REC and PE leadership Council: 5 student representatives. Supports the Duke Community in the promotion of their recreation pursuits, discusses recreational affairs, encourages the growth of the recreation activities on campus to a broad and diverse audience, recommends changes in the interpretation of rules and policies governing specific recreational program, advises of needed additions/improvements to recreational facilities.

GPSC Green Team: 4 student representatives. Internal Committee which aims to increase green practices across campus. This year we would like the committee to liaise with "green teams" at other universities in order to investigate what Duke can do to improve our involvement.

Global Priorities Committee: 1 student representative. Reviews and refines Duke's global strategy assessing university and academic programs and activities operating globally, both when they are being created and in monitoring ongoing performance.

Committee on Facilities and Environment: 1 student representative. Reviews all projects destined for consideration by the Board of Trustees' Facilities & Environment Committee

Do all staff, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

No

A brief description of the mechanisms through which all staff have an avenue to participate in one or more governance bodies:

Is there at least one non-supervisory staff representative on the institution's governing body who was elected by peers or appointed by a representative staff body or organization?:

No

A brief description of non-supervisory staff representation on the governing body, including how the representatives are selected:

Do non-supervisory staff have a formal role in decision-making in regard to the following? :

	Yes or No
Establishing organizational mission, vision, and/or goals	No
Establishing new policies, programs, or initiatives	No
Strategic and long-term planning	No
Existing or prospective physical resources	No
Budgeting, staffing and financial planning	No
Communications processes and transparency practices	No
Prioritization of programs and projects	No

A brief description of the formal staff role in regard to each area indicated, including examples from the previous three years:

Do all faculty, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

Yes

A brief description of the mechanisms through which all faculty (including adjunct faculty) have an avenue to participate in one or more governance bodies:

Nomination and elections for Board of Trustees. The thirty-six elected Trustees shall be elected as follows: twelve by the North Carolina Conference of the United Methodist Church; twelve by the Western North Carolina Conference of the United Methodist Church and twelve by the graduates of Duke University. Any student, faculty member, alumnus, Trustee, or other friend of the University may offer candidates for consideration. A roster of such candidates shall be kept in the office of the University Secretary, and it shall be reviewed whenever vacancies are expected to occur. The Executive Committee shall then make its recommendations to the Board of Trustees, and the Board, after hearing the recommendations of the Executive Committee, and by a majority of the Trustees present at any regular meeting, shall nominate the persons to be elected Trustees and submit its nominations to the appropriate conference of the United

Methodist Church and the graduates.

The Board of Trustees, in its discretion, may elect representatives of the faculty and student body from lists of nominations developed by the President in consultation with representative student and faculty groups. The term of any faculty and student committee member who may be elected shall be one year. The election of other committee members shall be effected by the Board of Trustees in accordance with the membership requirements of each committee.

Is there at least one teaching or research faculty representative on the institution's governing body who was elected by peers or appointed by a representative faculty body or organization?:

Yes

A brief description of faculty representation on the governing body, including how the representatives are selected:

The Board of Trustees performs much of its work through committees that can engage deeply in topics of importance to the University. The Board elects the members of all Trustee committees, which include Trustees, faculty, and students. The Board of Trustees currently has nine standing committees and may establish other committees and subcommittees as needed.

- Executive Committee
- Academic Affairs Committee
- Audit Committee
- Business and Finance Committee
- Facilities and Environment Committee
- Committee on Honorary Degrees
- Human Resources Committee
- Institutional Advancement Committee
- Medical Center Academic Affairs Committee
- Subcommittee on Trusteeship
- Undergraduate Education Committee

Representatives are selected by a list of nominations developed by the President after consultation from representative student and faculty groups.

The Academic Council and the Executive Committee which it elects are the chief instruments of faculty governance at Duke University. The Bylaws of the University invite the Faculty in general, and the various quorums as well, to organize themselves in representative councils for discussion of matters of interest to each faculty grouping. These councils provide for representation of considered faculty opinion to the Administration, and less directly to the Trustees and any other bodies.

Do faculty have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes
Establishing new policies, programs, or initiatives	Yes

Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	Yes
Communications processes and transparency practices	Yes
Prioritization of programs and projects	Yes

A brief description of the formal faculty role in regard to each area indicated, including examples from the previous three years:

ACADEMIC AFFAIRS COMMITTEE: the Academic Affairs Committee oversees all activities that support the academic mission of the University, including the articulation of the academic mission of the University, enhancing the quality of the academic program, considering new academic programs and significant modifications in existing academic programs, fostering faculty development and other faculty priorities, all matters relating to the graduate and professional student experience (including academic, extra-curricular, and co-curricular affairs), promoting scholarly research, and overseeing strategic planning for the University and its constituent schools. The Committee's jurisdiction coordinates with, but does not extend to, matters under the jurisdiction of the Medical Center Academic Affairs Committee or the Undergraduate Education Committee

BUSINESS AND FINANCE COMMITTEE: The Business and Finance Committee is responsible for safeguarding and monitoring the University's financial stability and long-term economic health. The Committee serves as the Board's principal forum for the consideration of matters relating to the University's business operations, administration, budgeting, financing, financial reporting, and financial reserves. On a regular basis the Committee provides the Board with complete financial overviews of the University and recommends policies and procedures governing the funding of yearly operational plans and the financing of long-term capital needs.

FACILITIES AND ENVIRONMENT COMMITTEE: The Committee is responsible for all planning, construction, maintenance, expansion, and renovation projects that impact the University's consolidated infrastructure, physical facilities, and natural environment, including its lands, improvements, and capital equipment. Within parameters established by the Committee and approved by the Board, the Committee oversees capital projects; designs for projects; and certain capital projects of Duke University Health System, Inc.; the selection and appointment of architects, construction managers, and contractors for such projects; acquisition or disposition of property; and operation and maintenance projects of a certain magnitude. The Committee makes appropriate recommendations to the Board concerning the University's Master Plan, buildings, grounds, roads, walkways, parking facilities, utilities, and environmental sustainability and policies relating thereto.

HUMAN RESOURCES COMMITTEE: The Human Resources Committee oversees the University's human resources policies and practices and advises the administration on major aspects of workforce planning, strategy, and investment to ensure that the workforce configuration and culture are optimally suited to the strategic needs of Duke and reflect the University's values of equity, diversity, and inclusion. The Committee considers and recommends action required to advance the University's strategic mission by promoting fair and respectful practices and compliance with all applicable employment, labor, and workplace laws.

INSTITUTIONAL ADVANCEMENT COMMITTEE: The Institutional Advancement Committee reviews, discusses, and, when appropriate and necessary, recommends action on important and substantive issues and proposals involving development, public affairs and government relations, community affairs, and alumni affairs. The Committee reviews and recommends University-wide policies and practices concerning philanthropic giving, fundraising initiatives, alumni programming, communications and media, government and

public relations, and community affairs.

UNDERGRADUATE EDUCATION COMMITTEE: The Undergraduate Education Committee is responsible for the academic, social, ethical, and personal development of undergraduate students. The Undergraduate Education Committee oversees and recommends policies relating to the undergraduate experience, including academic studies; curriculum; residence life; student governance and activities; and the general physical, psychological, and spiritual well-being of undergraduate students.

The website URL where information about the institution's governance structure is available:

<http://www.trustees.duke.edu/governing/bylaws.php>

Diversity & 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. Members of racial and ethnic minority groups and immigrant, indigenous and low-income communities tend to suffer disproportionate exposure to environmental problems. This environmental injustice happens as a result of unequal and segregated or isolated 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
Assessing Diversity and Equity
Support for Underrepresented Groups
Support for Future Faculty Diversity
Affordability and Access

Diversity and Equity Coordination

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has a diversity and equity committee, office and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus. The committee, office and/or officer focuses on student and/or employee diversity and equity.

Part 2

Institution makes cultural competence trainings and activities available to all members of one or more of the following groups:

- Students
 - Staff
 - Faculty
 - Administrators
-

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

Does the institution have a diversity and equity committee, office, and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus?:

Yes

Does the committee, office and/or officer focus on one or both of the following?:

	Yes or No
Student diversity and equity	Yes
Employee diversity and equity	Yes

A brief description of the diversity and equity committee, office and/or officer, including purview and activities:

Under the auspices of the President, the Office for Institutional Equity provides institutional leadership in enhancing respectful, diverse and inclusive work and learning environments for the Duke Community. We provide a range of services that uphold values of equity and diversity, as well as support compliance efforts in the areas of equal opportunity, affirmative action and harassment prevention.

The OIE Advisory Committee will provide advice and feedback to the Office for Institutional Equity relative to its services, impact on the Duke community and how OIE might do its work more effectively. Committee members will serve as communicators for OIE’s message, while keeping the office informed and aware of significant issues of employment policies and practices as they pertain to OIE’s mission.

The full-time equivalent of people employed in the diversity and equity office:

12

The website URL where information about the diversity and equity committee, office and/or officer is available:

<https://web.duke.edu/equity/resources/advisory.html>

Does the institution make cultural competence trainings and activities available to all members of the following groups?:

	Yes or No
Students	Yes
Staff	Yes
Faculty	Yes
Administrators	Yes

A brief description of the cultural competence trainings and activities:

Duke has a long-standing commitment to increasing the diversity in all parts of the university community – faculty, staff and student body. Among the goals of its ongoing efforts:

- * Increase minority student enrollment and recruit and retain diverse faculty and staff.
- * Provide minority students, faculty and staff with the necessary support to succeed.
- * Promote an academic and social environment where diversity can flourish.

The Diversity & Equity Program offers consultation and training designed to assist staff in deepening diversity awareness, enhancing skill development, and providing information related to a broad range of diversity topics, cross-cultural understanding, and institutional equity.

Services:

- * Explore how diversity and inclusion can be integrated into existing performance tools such as the Balanced Scorecard, Six Sigma and Pay & Performance.
- * Integrate diversity measures into performance review and goal setting practices.
- * Design, facilitate and counsel an employee work group to support diversity awareness and education within the department.
- * Facilitate workshops, retreats, and discussions related to diversity and inclusion.
- * Identify and award Duke employees and teams who demonstrate leadership in the area of diversity & inclusion with a Semiannual EDI

Award. (Equity, Diversity & Inclusion).

This “Diversity Toolkit” has been compiled as part of OIE’s ongoing effort to provide resources to the whole Duke community, including all staff, faculty, and students across the University and the Health System. Each and every one of us carries responsibility for our workplace culture and educational climate at Duke. The toolkit can be used as an adjunct to the educational programs OIE already offers to departments and teams, or as a resource in developing strategies and plans to improve inclusion and engagement within a new initiative. The Diversity Toolkit provides links to publications (books, journals, reports, etc.), as well as links to electronic sources (websites, blogs, etc.).

The website URL where information about the cultural competence trainings is available:

<https://web.duke.edu/equity/>

Assessing Diversity and Equity

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution assesses diversity and equity on campus and uses the results to guide policy, programs, and initiatives. The assessment(s) address one or more of the following areas:

1. **Campus climate**, e.g. through a survey or series of surveys to gather information about the attitudes, perceptions and experiences of campus stakeholders and underrepresented groups
 2. **Student diversity and educational equity**, e.g. through analysis of institutional data on diversity and equity by program and level, comparisons between graduation and retention rates for diverse groups, and comparisons of student diversity to the diversity of the communities being served by the institution
 3. **Employee diversity and employment equity**, e.g. through analysis of institutional data on diversity and equity by job level and classification, and comparisons between broad workforce diversity, faculty diversity, management diversity and the diversity of the communities being served by the institution
 4. **Governance and public engagement**, e.g. by assessing access to and participation in governance on the part of underrepresented groups and women, the centrality of diversity and equity in planning and mission statements, and diversity and equity in public engagement efforts
-

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

Has the institution assessed diversity and equity in terms of campus climate?:

Yes

A brief description of the campus climate assessment(s) :

Several recent initiatives have sought to assess campus attitudes towards diversity, culture and equity and utilize results to guide policy at Duke. Examples of these include:

Campus Culture Initiative - A diverse, inclusive and engaged community that affirms difference: That's the environment necessary for the transformative educational experience that Duke intends to provide, according to a report from the Campus Culture Initiative Steering Committee. The 24-member panel, which included faculty, administrators, undergraduate students, a graduate student and alumni, issued a report in 2007 outlining a series of actions intended to "engage difference more deeply and directly." According to the report, "We are proud of the increased diversity that Duke has achieved. An academic community must, however, consistently and constructively engage difference in order to reap its full benefits." From April 2006 through February 2007, the Committee was engaged in a thoughtful and comprehensive consideration of Duke's Campus Culture and ways to improve it. They examined issues, analyzed data and engaged in multiple conversations with individuals and groups across campus.

http://www.diversity.duke.edu/initiatives/campus_culture.php

http://today.duke.edu/2007/02/CCI_report.html

Women's Initiative - Toward the end of her remarkable tour of duty as President of Duke, Nannerl O. Keohane commissioned a study known as the Women's Initiative. When the report was published in fall 2003, the Women's Initiative received extensive national attention both within universities and beyond, as it deserved to. A generation after the most overt forms of gender discrimination were brought up for critique and revision in this country, subtler forces persist, impeding full equality of opportunity for women. Under President Keohane's leadership Duke undertook to assess the place we have come to in gender equality with unusual courage and candor.

The comprehensiveness of the Women's Initiative report remains its most striking feature. Rather than studying a single segment of the university community, a team of task forces considered the full set of women's experiences within the university: the lives of women faculty, staff, graduate students, undergraduates, and alumnae as well. Through this breadth of focus, the report was able to highlight issues that link the experience of women across categories, such as the critical role of mentorship. At the same time, the study noted that the most salient issues for women in the university are often specific to their position, so that a women's agenda needs to have many different parts. The relation of the tenure clock to family responsibilities is an issue for untenured women faculty members, but not for the tenured. Childcare is an issue for younger faculty, staff and some graduate students but not, with rare exceptions, for undergraduates. And the pressures on undergraduate women have their own character, which the report is careful to detail.

<http://today.duke.edu/2006/09/wiintro.html>

<http://universitywomen.stanford.edu/reports/WomensInitiativeReport.pdf>

Has the institution assessed student diversity and educational equity?:

Yes

A brief description of the student diversity and educational equity assessment(s):

Duke aims to increase underrepresented minority student science, technology, engineering and math (STEM) degree completion by 8 percent. To achieve this commitment, Duke will partner with the Howard Hughes Medical Institute to create a Collaboratory On Mentoring, Persistence, Assessment, and Student Success (COMPASS).

The focus for COMPASS at Duke is to replace a one-size-fits-all approach with a suite of different teaching methods that were chosen based on evidence that they are effective in reaching different groups of students. Duke's commitment to this goal will engage students and faculty, span multiple departments and create a community of STEM learners and research practitioners.

“We applaud the President and First Lady’s initiatives to increase opportunities for all high school students to access higher education,” Baker said. “Duke has been and we will continue to focus on recruiting and supporting highly meritorious students from diverse backgrounds.”

To date, Duke has launched several initiatives to reach underserved young students and improve their access to college. A partnership with the College Advising Corps has Duke students serving as college advisers to high school students in rural North Carolina communities. Duke also runs a pre-orientation program for first-generation students each fall to ease their transition into college.

In addition, Duke continues to have a need-blind admissions policy, which means that all qualified U.S. applicants are accepted regardless of their ability to pay for college. Duke guarantees it will meet 100 percent of demonstrated financial need.

<https://today.duke.edu/2014/12/compasswhitehouse>

<http://dukemagazine.duke.edu/article/blazing-trail>

Has the institution assessed employee diversity and employment equity?:

Yes

A brief description of the employee diversity and employment equity assessment(s):

Faculty Diversity Standing Committee

This Faculty Diversity Standing Committee was formed in fall 2003 to aid in the implementation of the Faculty Diversity Initiative, especially related to historically underrepresented groups — faculty of color; women in the sciences, mathematics and engineering. Comprised of faculty and relevant deans/administrators, the Committee reviews relevant data and programs, including faculty recruitment, hiring and retention efforts, exit and climate surveys, work-life balance and mentoring initiatives. The Committee provides feedback to the Provost on progress toward an inclusive faculty work force and areas that deserve attention. Term: three years.

Duke University prohibits discrimination and harassment, and provides equal employment opportunity without regard to race, color, religion, national origin, disability, veteran status, sexual orientation, gender identity, sex, age, or genetic information. Duke is committed to recruiting, hiring, and promoting qualified minorities, women, individuals with disabilities, and veterans.

Pursuant to Title IX of the Education Amendment of 1972, Duke prohibits discrimination on the basis of sex in any of its educational programs or activities.

Has the institution assessed diversity and equity in terms of governance and public engagement?:

No

A brief description of the governance and public engagement assessment(s):

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

The website URL where information about the assessment(s) is available:

<http://diversity.duke.edu/initiatives/>

Support for Underrepresented Groups

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has mentoring, counseling, peer support, academic support, or other programs in place to support underrepresented groups on campus.

This credit excludes programs to help build a diverse faculty throughout higher education, which are covered in *PA 7: Support for Future Faculty Diversity*.

Part 2

Institution has a discrimination response policy, program and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime.

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

Does the institution have mentoring, counseling, peer support, academic support, or other programs to support underrepresented groups on campus?:

Yes

A brief description of the programs sponsored by the institution to support underrepresented groups:

In order for students to embrace the diversity of the Duke campus and the world that surrounds them, they must first understand and embrace their own sense of identity.

The Division of Student Affairs recognizes this and features a variety of identity centers including the Women's Center, the Mary Lou Williams Center for Black Culture, the Center for Lesbian, Gay, Bisexual and Transgender Life, the Multicultural Center, the International House and a variety of religious communities.

We take great pride in supporting the 'Big-D' Duke community as well as the variety of sub-communities that comprise it. We are well aware, however, of the challenges associated with supporting numerous individual identity groups while fostering inter-group interaction and a collective Duke student identity. That said, through our approach at Duke, we can uniquely and simultaneously celebrate and advance student differences and commonalities.

The Division of Student Affairs is committed to exposing students to and engaging them in the spirit and practice of multiculturalism and inclusion so that we may prepare them for their future in this ever-changing landscape of people, places and ideas. Through our efforts, we will promote cultural diversity through collaborative student-initiated events, faculty and staff led dialogue, social interaction and experiential learning.

<http://diversity.duke.edu/atduke/centers.php>

The website URL where more information about the support programs for underrepresented groups is available:

<http://diversity.duke.edu/>

Does the institution have a discrimination response policy and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime?:

Yes

A brief description of the institution's discrimination response policy, program and/or team:

The Office for Institutional Equity (OIE) is responsible for implementing and monitoring Duke University's harassment and discrimination policies that ensure and support an environment free of harassment and discrimination. It is important to know the policies and procedures.

You have the right to raise a concern or complaint regarding harassment or discrimination. You also have the right to utilize available resources, such as the Office for Institutional Equity, and do not have to follow any "chain of command" to raise a concern or submit a complaint of harassment or discrimination.

Our policies prohibit retaliation against anyone for coming forward with a concern or submitting a complaint. If you believe you have experienced prohibited retaliation, you may contact the Office for Institutional Equity to address this concern.

The website URL where more information about the institution's discrimination response policy, program and/or team is available:

<https://web.duke.edu/equity/complaints.html>

Does the institution offer housing options to accommodate the special needs of transgender and transitioning students?:

Yes

Does the institution produce a publicly accessible inventory of gender neutral bathrooms on campus?:

No

Support for Future Faculty Diversity

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

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 from underrepresented groups 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.
-

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

Does the institution administer and/or participate in a program or programs to help build a diverse faculty that meet the criteria for this credit?:

Yes

A brief description of the institution's programs that help increase the diversity of higher education faculty:

Faculty Mentoring Initiative - Mentoring is a critical component of supporting a diverse faculty. Launched in 2006, this initiative enumerates best practices for mentoring new and junior faculty. Department chairs and deans are expected to meet individually with junior faculty on an annual basis. Regular discussions concerning mentoring occur in departmental meetings and at Deans' Cabinet. Exit interviews of departing regular rank faculty include inquiry about the adequacy of mentoring during the faculty member's time at Duke.

Development of Future Faculty Special Interest Group (SIG) - administered by Hugh Crumley - Duke University, Instructional Technology Specialist, Adjunct Assistant Professor of Education, Center for Instructional Technology

This is a new SIG in the professional organization the Society for Information Technology & Teacher Education (SITE.) This SIG is for professionals and graduate students who are interested in technology and the development of future instructors in higher education. This includes graduate students who plan to go on to faculty careers in higher education in disciplines including, but not limited to, education and the faculty who work with those graduate students.

<http://cit.duke.edu/services/grad/index.html>

Other examples of programs across Duke –

Down to Earth Dinner Series - Making Community Connections, Multicultural Center - Down to Earth is a dinner series where students can learn from the diverse experiences and research of staff and faculty in a relaxed environment.

- * Connect with more people who are here to support you
- * Explore your own identity and experiences with others
- * Learn about subjects outside your major
- * Develop relationships with potential mentors
- * Start making connections...

<http://www.studentaffairs.duke.edu/mcc/programs-services/down-earth-dinner-series>

The website URL where more information about the faculty diversity program(s) is available :

<http://diversity.duke.edu/initiatives/faculty.php>

Affordability and Access

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has policies and programs in place to make it accessible and affordable to low-income students and/or to support non-traditional 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 (e.g. U.S. federal TRIO programs)
- Scholarships provided specifically 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
- Scholarships provided specifically for part-time students
- An on-site child care facility, a partnership with a local facility, and/or subsidies or financial support to help meet the child care needs of students

Part 2

Institution is accessible and affordable to low-income students as demonstrated by one or more of the following indicators:

- A. The percentage of entering students that are low-income
 - B. The graduation/success rate for low-income students
 - C. The percentage of student financial need met, on average
 - D. The percentage of students graduating with no interest-bearing student loan debt
-

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

Does the institution have policies and programs in place to make it accessible and affordable to low-income students?:

Yes

A brief description of any policies and programs to minimize the cost of attendance for low-income students:

Duke's Financial aid initiative

As part of our ongoing commitment to make high-quality undergraduate education more affordable, Duke announced in December 2007 a series of enhancements to its need-based undergraduate financial aid program that took effect in the 2008-09 academic year. These enhancements include

- * eliminating the parental contribution for families with incomes less than \$60,000;
- * eliminating loans for families with incomes less than \$40,000;
- * reducing loans for students from families with incomes up to \$85,000; and
- * capping loans for eligible families with incomes above \$85,000.

“The strength of the University depends on its ability to select and recruit students on the grounds of ability, dedication and promise, not on a family’s financial circumstances,” said President Richard H. Brodhead, who in his 2004 inaugural speech identified increasing the University’s endowment for financial aid as one of his highest priorities. “We have deliberately focused these new investments on relieving the burden not only for parents with incomes below the national median but for students from middle-income families as well.”

The 2012-13 Duke budget includes \$128.2 million -- a 7 percent increase from the FY12 budget -- to support Duke’s undergraduate financial aid program and fund these enhancements. About 52 percent of undergraduates receive financial support to attend Duke; about 43 percent receive need-based aid.

Duke Financial Aid Policies and Procedures Guiding Principles

Duke University views its financial aid program as an investment in students and their futures. We seek a diverse student body and are committed to ensuring that aided students can take full advantage of the Duke experience. To that end, Duke admits U.S. citizens, permanent residents and a limited number of foreign students without regard to financial circumstance or aid eligibility and meets 100 percent of each admitted student's demonstrated need throughout their nine semesters of potential undergraduate enrollment.

Duke, like many similar institutions, uses the 568 Presidents' Group Consensus Approach to Needs Analysis to determine each student's family contribution. This formula, whose guiding principles are articulated under Bulletin Board/Tips on this page, is designed to ensure that families with similar circumstances contribute similar amounts while families with different financial circumstances contribute proportionally different amounts toward a student's annual attendance costs. Duke does not "negotiate" financial aid, but does consider extenuating circumstances that may affect a family's ability to support educational expenses. Applicants are encouraged to submit dollar-specific details relative to any extenuating or unusual circumstances that affect their ability to support educational expenses.

In addition to need-based scholarships, grants and loans, merit scholarships are integral to Duke's financial aid program. Although all merit scholarships are awarded at the time of admission on the basis of academic distinction, other factors such as leadership, musical talent and other unique characteristics are considered. Several of these programs are awarded without regard to a student's demonstrated need. Recipients who meet the specified academic standards will retain their merit scholarship for the four years they are enrolled at Duke. Applicants for admission are considered for all available merit scholarships. No specific scholarship application is available or required.

A brief description of any programs to equip the institution’s faculty and staff to better serve students from low-income backgrounds:

A brief description of any programs to prepare students from low-income backgrounds for higher education:

A two-day pre-orientation program followed by ongoing support throughout the academic year is provided for high-need, first generation students. The program introduces students to the university "system" to help them negotiate more effectively and also introduces them to faculty to help them make meaningful academic connections on the first day. This program also promotes a sense of belonging and strength.

A brief description of the institution's scholarships for low-income students:

The majority of assistance offered by Duke is in the form of need-based grants and scholarships. These funds do not have to be repaid and are calculated based on information from the CSS Profile and accompanying documentation. Students receiving need-based grants or scholarships from Duke are largely supported through endowments established by donors, and students receiving these awards may be asked to write thank-you letters to individual donors after receiving these awards.

A brief description of any programs to guide parents of low-income students through the higher education experience:

See above. Duke also has a parallel two day pre-orientation program for parents of first generation students.

A brief description of any targeted outreach to recruit students from low-income backgrounds:

Excerpt from the current Duke Strategic Plan –
Chapter 3 - Duke's Enduring Themes - Affordability and access

Duke's historic commitment to affordability and access was built on the fundamental principle of justice, on our belief that access to higher education - and thereby worldly success - should be available to all, not simply to those who can pay. But in modern America, qualification for college admission has had a high correlation with family income, and the premier private universities tend to recruit classes substantially tipped toward upper income sectors. Universities alone, of course, cannot affect or right every cause contributing to the unequal preparation of the young. But just for that reason, we have a special obligation to do what we can, and assuming the share of costs that a family cannot afford to pay is our way of assuring that we recruit students on the grounds of ability, dedication, and promise alone, not of family circumstance. Moreover, society has a profound self-interest in seeing that those with talent have access to quality education. We tend to take for granted the dynamism that makes our economy and culture develop wealth and an envied quality of life, but there is no reason to believe these things are self-sustaining. They are driven by human intelligence and creativity, and for renewal, these resources need cultivation and investment. Making sure that those gifted with these traits get the education that will allow them to give the greatest return on their talents is the best way to provide for this social good. It is safe to say that the talent upon which we will someday want to draw is not confined to a single social origin or band of income.

Duke's commitment to financial aid and need-blind admission is the investment we make to produce the trained talent our future world will require - and when we think of graduate and professional schools, this means the talent that will keep our own fields strong and strongly advancing. Some 45% of all Duke undergraduates receive aid from the University. To meet the challenge to be able to ensure that we select and recruit students on the grounds of ability, dedication and promise alone, we have recently engaged in a \$300 million Financial Aid initiative to strengthen Duke's financial aid endowment. We have dedicated our institutional resources to financial aid over time, and launched this focused and substantial fundraising effort, not only because of our responsibility to nurture talent for the good of society at large, but also because we believe that when we enable students to come to Duke from other income groups, other regions, other countries, we create a better experience not just for them but for every member of our common community.

* We must provide increased support to ensure broader access to our undergraduate, graduate, and professional schools.

* We must increase support for professional students committed to less remunerative careers.

Graduate Student Affairs - Diversity Initiatives

The Graduate School has a long-standing commitment to increasing the diversity and quality of its graduate student body. Our primary goals are to increase enrollment of students from traditionally underrepresented groups, to provide students with sufficient funding to complete their graduate studies in a timely manner, and to promote an academic and social environment where these scholars can flourish. Targeted recruiting strategies (including undergraduate research opportunities like the Summer Research Opportunity Program (SROP) that give potential students a taste of the graduate student experience) are vital to these efforts, and the involvement of Duke's graduate faculty is central to these strategies.

Recruitment

A key mission of the Office of Graduate Student Affairs is to coordinate, supplement, and expand the recruiting efforts of graduate departments and programs. Each year GSA participates in recruitment fairs across the country that enable us to meet potential graduate students and to answer any questions they might have about Duke's graduate programs. GSA coordinates with other nearby schools to bring talented undergraduates from across the country to visit our campuses. Activities during these visits typically include seminars on graduate admissions and financial aid, panel discussions with faculty and graduate students, departmental visitations, and informal gatherings.

Other mechanisms the Graduate School employs in the recruitment of students from traditionally underrepresented groups include participation in national consortia designed to promote diversity in graduate education; targeted faculty recruitment visits to colleges and universities; and the development of external and institutional funding to support summer research opportunities for undergraduates.

Retention

GSA provides general counseling for students from traditionally underrepresented groups, develops programs to enhance their participation in graduate student life, and helps students to identify external sources of funding. The office also provides recruitment, retention, and completion data and helps to initiate various summer research opportunities that identify potential graduate students early in their college careers.

A brief description of other admissions policies or programs to make the institution accessible and affordable to low-income students:

When awarding undergraduate financial aid, Duke adheres to the following principles:

To the extent they are able, parents and students have the primary responsibility to contribute to educational expenses before Duke awards financial aid.

Families should contribute to educational expenses according to their ability. Those with similar financial profiles should contribute similar amounts.

Both income and assets, including business income and assets, are part of the assessment of the parents' and applicants' ability to pay.

Institutional aid is awarded on the basis of financial need as determined by the information provided on an applicant's CSS Profile and supporting tax and wage information.

In addition,

From

<http://financialaid.duke.edu/undergraduate-applicants/how-does-it-work>

(Duke's Financial Aid Website)

Your family contribution is made up of two parts: the amount expected from parent(s) and the amount expected from you. Duke expects a minimum contribution from a first-year student of \$2,600 per year, regardless of income. The parent contribution is calculated by the Financial Aid Office based on the income and assets held by the family. Families with a total annual income of \$60,000 or less, and typical assets, will have an expected parent contribution of \$0.

Once we've determined your family contribution, we'll build your financial aid award. The financial aid award may consist of work study, limited student loans*, grants, and scholarships. All applicants are offered up to \$2,200 in work-study funding, which can be earned during the academic year. (Click here to learn more about what work study is and how it can help.) In addition to work study, some applicants are offered federal or low-interest loans. The rest of your family's need will be met with grants and scholarships.

A brief description of other financial aid policies or programs to make the institution accessible and affordable to low-income students:

The Financial Aid System at Duke has multiple steps. Undergraduate applicants can calculate their aid on the duke financial aid website.

Once the appropriate loan and work-study levels have been applied, the remaining financial aid will be issued in the form of need-based grants and scholarships.

A brief description of other policies and programs to make the institution accessible and affordable to low-income students not covered above:

To help families with more than one child in school:

Duke adjusts the expected contribution for families receiving need-based aid with multiple students in college at the same time. The Parent Contribution is adjusted to 60% of the full calculated contribution for families who have two children in college and to 45% of the full calculated contribution for those with three children in college. Please see the notes below for the guidelines regarding these adjustments.

Does the institution have policies and programs in place to support non-traditional students?:

No

A brief description of any scholarships provided specifically for part-time students:

Students taking fewer than three credits during an academic term have their tuition prorated based on a per-course tuition charge and their book allowance reduced to half their full-time allotment. Such students are subject to the following:

The tuition component of their budget for the term is reduced to the amount charged on their Bursar's bill. The book component of their budget for the term is reduced to half of their full-time allowance. Need-based aid is reduced to reflect the reduced eligibility that results from the lower charges. Eligibility for certain programs is affected. Part-time students are not eligible to receive the North Carolina Tuition Grant for that term. Pell Grant award amounts for that term are reduced. To determine the correct Pell amount, the payment schedule for periods less than full-time must be consulted.

A brief description of any onsite child care facilities, partnerships with local facilities, and/or subsidies or financial support to help meet the child care needs of students:

Duke Child Care Partnership - Parents who work at Duke University and Health System have greater access to quality child care through the Duke Child Care Partnership.

On-site Child Care at Duke - Duke faculty, staff and graduate students have two options for on-site childcare at Duke: the Duke Children's Campus and The Little School at Duke.

Child Care Services Association - Choosing a child care provider can be a difficult decision. Child Care Services Association, a non profit child care resource and referral agency, helps families access affordable high-quality child care for their children from birth through age 12. This service is provided free of charge.

Dependent Care Reimbursement Account - Duke offers you a Dependent Care Reimbursement Account to help you take advantage of tax savings on eligible dependent care expenses.

A brief description of other policies and programs to support non-traditional students:

Does the institution wish to pursue Part 2 of this credit (accessibility and affordability indicators)?:

No

Indicators that the institution is accessible and affordable to low-income students::

	Percentage (0-100)
The percentage of entering students that are low-income	---
The graduation/success rate for low-income students	---
The percentage of student financial need met, on average	---
The percentage of students graduating with no interest-bearing student loan debt	---

The percentage of students that participate in or directly benefit from the institution's policies and programs to support low-income and non-traditional students:

The website URL where information about the institution's affordability and access programs is available:

<http://dukefinancialaid.duke.edu/>

Health, Wellbeing & Work

This subcategory seeks to recognize institutions that have incorporated sustainability into their human resources programs and policies. 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 and acting to protect and positively affect the health, safety and wellbeing of the campus community. Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital.

Credit
Employee Compensation
Assessing Employee Satisfaction
Wellness Program
Workplace Health and Safety

Employee Compensation

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution's employees and/or the employees of its on-site contractors are covered by sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements.

A sustainable compensation (or "living wage") standard, guideline or policy is one that addresses wages and benefits in terms of the ability of employees to meet basic needs. For example, a sustainable compensation policy may index hourly wages to a poverty guideline or to local cost-of-living indicators. A labor market survey, salary survey or similar assessment may be used in conjunction with a basic needs/cost-of-living approach, but is not sufficient on its own to count as a sustainable compensation policy.

Part 2

Institution's employees and/or the employees of its on-site contractors receive sustainable compensation.

To earn points for Part 2 of this credit, an institution must assess employee compensation against one or more of the following:

1. A sustainable compensation standard developed or adopted by a committee with multi-stakeholder representation (i.e. its membership includes faculty, staff, and students and may include Human Resources administrators or other parties). The standard need not be formally adopted by the institution.
2. A sustainable compensation standard that is in use in the institution's locality. The standard may be formal (e.g. a "living wage" ordinance covering public employees) or informal (e.g. a standard adopted by a local, regional or national campaign).
3. An appropriate poverty guideline, threshold or low-income cut-off for a family of four.

For institutions that elect to assess compensation against a poverty guideline, threshold or low-income cut-off, sustainable compensation is defined as wages equivalent to 120 percent of the poverty guideline for a family of four. An institution may offset up to 20 percent of the wage criteria with employer-paid benefits that address basic needs (e.g. healthcare and retirement contributions).

Both parts of this credit are based on the total number of employees working on campus as part of regular and ongoing campus operations, which includes:

- Staff and faculty, i.e. all regular full-time, regular part-time and temporary (or non-regular) employees, including adjunct faculty and graduate student employees (e.g. teaching and research assistants). Institutions may choose to include or omit undergraduate student workers.
- Employees of contractors that work on-site as part of regular and ongoing campus operations. Such contractors may include, but are not limited to, providers of dining/catering, cleaning/janitorial, maintenance, groundskeeping, transportation, and retail services.

Construction and demolition crews and other temporary contracted employees may be excluded.

Submission Note:

Duke University and Duke University Health System will increase the current minimum wage for all regular employees to \$12.00 per hour effective July 1, 2015.

Duke's current minimum wage of \$10.91 was last adjusted in 2012. The new rate well exceeds the federal and state minimum wage of \$7.25 per hour.

Duke University and Health System annually review all pay ranges, including its minimum wage, relative to the local and national markets.

The adjustment will result a pay increase for more than 400 current employees, who will be notified by letter.

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

Assessing Employee Satisfaction

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution conducts a survey or other evaluation that allows for anonymous feedback to measure employee satisfaction and engagement. The survey or equivalent may be conducted institution-wide or may be done by individual departments or divisions. The evaluation addresses (but is not limited to) the following areas:

- Job satisfaction
- Learning and advancement opportunities
- Work culture and work/life balance

The institution has a mechanism in place to address issues raised by the evaluation.

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

Has the institution conducted an employee satisfaction and engagement survey or other evaluation that meets the criteria for this credit?:

Yes

The percentage of employees (staff and faculty) assessed, directly or by representative sample:

20

A brief description of the institution's methodology for evaluating employee satisfaction and engagement:

Duke participates in two primary efforts to better understand the work environment and employee satisfaction. Additional information about these surveys is offered below.

The Chronicle of Higher Education's "Great Colleges to Work For" Program: For the last seven years, Duke University has participated in The Chronicle of Higher Education's "Great Colleges to Work For" program, a study designed to recognize institutions that have built great work environments. Part of the program involves a survey distributed to a sample of each institution's full-time faculty, administrators and professional staff. The survey is administered by ModernThink, a consulting firm conducting the survey on behalf of The Chronicle of Higher Education, to ensure the confidentiality of responses. It assesses several categories, including job satisfaction/support, career development, research & scholarship, communication, supervisor relationship, and participation in college governance. Duke has been recognized each of the seven years as one of the "Great Colleges to Work For," including 2014.

Duke University Health System's Work Culture Survey: Duke University Health System offered its first Work Culture Survey in 1999 to determine how staff ranked the workplace in terms of communication, teamwork, and recognition. The results of the survey led to many new programs and enhancements. Today, the Work Culture Survey is conducted on an annual basis to assess the progress made since the

previous survey and identify needs for strengthening the DUHS work culture. Work culture committees have been developed to include a cross-section of employees and managers to identify and implement programs to improve the work environment. The survey has been an effective tool for monitoring and sustaining progress in improving the work environment and employee satisfaction at Duke University Health System.

<http://chronicle.com/article/Great-Colleges-To-Work-For/147387/#id=inst-2631>

Duke University Health System's Work Culture Survey:

<http://insidedukemedicine.org/announcements/work-culture-survey-for-duhs/>

A brief description of the mechanism(s) by which the institution addresses issues raised by the evaluation (including examples from the previous three years):

Duke is committed to fair and equitable treatment for all staff. Duke has established this procedure for fair, orderly, and prompt resolution of disagreements. Any claim arising out of or relating to employment policies will be settled in accordance with this procedure. The arbitration step of this procedure will be governed by the United States Arbitration Act. Both the staff member and Duke are required to utilize this procedure to resolve disagreements falling within its scope.

The year the employee satisfaction and engagement evaluation was last administered:

2,014

The website URL where information about the institution's employee satisfaction and engagement assessment is available:

<http://chronicle.com/article/Great-Colleges-To-Work-For/147387/#id=inst-2631>

Wellness Program

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has a wellness and/or employee assistance program that makes available counseling, referral, and wellbeing services to all members of any of the following groups:

- Students
 - Staff
 - Faculty
-

Submission Note:

Duke offers a wide range of wellness services for students ranging from physical health to mental health.

<http://studentaffairs.duke.edu/duwell>

Summary of services: The Student Wellness Center (DUWELL) helps students focus on their individual Wellness by looking at the integration of many areas of their life, including financial, social, spiritual, intellectual, mind-body, and environmental. Each of these dimensions of wellness is essential in maintaining harmony and balance in our lives. We provide individual services, group outreach and act as consultants, as well as a hub of information, on wellness.

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

Does the institution make counseling, referral, and wellbeing services available to all members of the following groups?:

	Yes or No
Students	Yes
Staff	Yes
Faculty	Yes

A brief description of the institution's wellness and/or employee assistance program(s):

LIVE FOR LIFE, Duke's employee wellness program, offers a variety of programs and services, such as health assessments and education, smoking cessation programs, fitness activities and nutrition activities, to help eligible faculty, staff and family members reach their health and fitness goals.

LIVE FOR LIFE's mission at Duke University is to support the goal of the Office of Human Resources in 1) providing programs and services to help Duke's people successfully accomplish the organization's missions, and 2) assist and support Duke's manager's in recruiting and retaining top-quality, diverse and healthy staff and to help develop an effective, productive workforce. 3) LIVE FOR LIFE will also promote a work culture and environment that supports healthy and safe behaviors/lifestyles.

<http://www.hr.duke.edu/about/departments/liveforlife/index.php>

Personal Assistance Service - Personal Assistance Service is the faculty and employee assistance program of Duke University. The staff of licensed professionals offers assessment, short-term counseling, and referrals to help resolve a range of personal, work, and family problems. PAS services are available free of charge to Duke faculty and staff, and their immediate family members.

<http://www.hr.duke.edu/pas/>

The website URL where information about the institution's wellness program(s) is available:

<http://www.hr.duke.edu/benefits/wellness/index.php>

Workplace Health and Safety

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Part 1

Institution has reduced its total number of reportable workplace injuries and occupational disease cases per full-time equivalent (FTE) employee compared to a baseline.

Part 2

Institution has fewer than 5 reportable workplace injuries and occupational disease cases annually per 100 full-time equivalent (FTE) employees.

This credit includes employees of contractors working on-site for whom the institution is liable for workplace safety, for example workers for whom the institution is mandated to report injuries and disease cases by a health and safety authority such as the U.S. Occupational Health and Safety Administration (OSHA) or the Canadian Center for Occupational Health and Safety (CCOHS). Injuries and disease cases include OSHA/CCOHS-reportable fatal and non-fatal injuries (or the equivalent) arising out of or in the course of work and cases of diseases arising from a work-related injury or the work situation or activity (e.g. exposure to harmful chemicals, stress, ergonomic issues). See *Sampling and Data Standards*, below, for further guidance on reporting injuries and disease cases.

Submission Note:

Information regarding the illnesses reported this past year to OSHA can be found at

http://www.safety.duke.edu/OHS/summaries/DukeUniversity_OSHALogSummary.pdf

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

Please enter data in the table below::

	Performance Year	Baseline Year
Number of reportable workplace injuries and occupational disease cases	147	213
Full-time equivalent of employees	8,764	7,746

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	Jan. 1, 2014	Dec. 31, 2014
Baseline Year	Jan. 1, 2007	Dec. 31, 2007

A brief description of when and why the workplace health and safety baseline was adopted:

The 2007 Baseline was chosen because it was the farthest year back that we could gather good, reliable data.

A brief description of the institution's workplace health and safety initiatives:

Duke values its staff and strives to provide safe work and a safe work environment. The health and safety of every staff member, patient, student, visitor, and the environment are primary considerations in Duke's continuous efforts to eliminate or reduce conditions and behaviors that could result in injuries or illnesses. Duke is committed to the principle that such a safety culture will help maintain staff member health, increase productivity, minimize lost work time, and reduce costs.

Duke also encourages its staff to maintain and maximize their health because doing so improves personal well-being, reduces health care costs, and enhances overall work performance. Duke provides low cost and no cost services through LIVE FOR LIFE®, Duke's employee health promotion program.

As part of its health and wellness services, Duke also offers staff a confidential employee assistance program, Personal Assistance Service, that provides a confidential assessment of the problem or difficulty and gives short-term counseling and referral to staff and their immediate family members at no cost.

Section Policies

Safety

Smoking

Substance Abuse

Disability/Impairment

Criminal Drug Conviction

Pre-placement Health Reviews

Periodic Health Review

Pre-placement Substance Abuse Screening

Work-Related Injury/Illness

Workers Compensation

Returning to Work from a Work-Related Injury/Illness

Workplace Violence

Prohibited Weapons

The website URL where information about the institution's workplace health and safety initiatives is available:

http://www.hr.duke.edu/policies/health_safety/index.php

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
Sustainable Investment
Investment Disclosure

Committee on Investor Responsibility

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution has a formally established and active committee on investor responsibility (CIR) or similar body that makes recommendations to fund decision-makers 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 formally established and active committee on investor responsibility (CIR) or similar body that has multi-stakeholder representation and otherwise meets the criteria for this credit?:

Yes

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:

In 2004, the Duke Board of Trustees approved the Guideline for the University on Socially Responsible Investing. Recognizing the need for a mechanism to assist the President on making recommendations to the BOT on this issue, two committees were created, the President's Special Committee on Investment Responsibility (PSC) and the Advisory Committee on Investment Responsibility (ACIR).

The PSC considers proposals from the University community relating to investment responsibility concerns and determines if there are credible allegations of substantial social injury. If the PSC agrees an issue requires further investigation, it will be referred to the ACIR for further review. The ACIR examines the issue and determines whether to propose to the President a course of action by the BOT. The President has the option to take the recommendation to the BOT or provide a written explanation to the ACIR on why their recommendation was not accepted. The President's Office presents an annual report to the Duke Community on the work of the PSC, ACIR and the President's and BOT responses.

When the University community has engaged in substantive discourse on an issue and expressed broad concern that a substantive social injury is being caused by such policies or practices, the President may make a recommendation to the BOT. Where the BOT agrees, it

may instruct the Duke University Mgt. Company (DUMAC) to take appropriate action, including the exercise of the University's practicable shareholder rights to seek modification of the company's activities to eliminate or reduce the injury, using such means as –

- Direct correspondence with management
- Proxy votes
- Sponsoring shareholder resolutions

In cases where these actions do not impact the company's actions, the BOT can also instruct DUMAC to divest the securities in question within a reasonable time period.

Members of the CIR, including affiliations and role (e.g. student, faculty, alumni):

The PSC is composed of the Provost and the Executive Vice President (or their delegates); the Dean of the one of the professional schools; the chair of ECAC or faculty member designated by ECAC; and a young trustee designated by the BOT. The PSC chair is appointed by the President.

The ACIR has nine voting members: one undergraduate and one graduate or professional student elected respectively by the Duke student government and graduate and professional student council; one alumnus elected by the Duke University alumni association; two faculty members elected by the academic council; the university counsel or his or her delegate; the deputy treasurer or his or her delegate; and two administrative appointees chosen by the president. The members are appointed for at least two years and may be reappointed, serving until their successors take office. The president appoints the chair from among the voting members.

Examples of CIR actions during the previous three years:

Several of the companies in which Duke is invested that produce exemplary environmental technologies are highlighted below:

A123 Systems – A123 Systems creates lithium ion batteries for electric cars and other applications, as well as energy storage systems for a smarter electricity grid.

SatCon Technology Corporation – SatCon Technology Corporation develops innovative power conversion solutions and provides system design services for utility-scale renewable energy plants.

1366 Technologies - With the mantra “solar at the cost of coal,” 1366 Technologies develops innovative manufacturing solutions for silicon cell manufacturers, including wafer and cell technologies that may cut the cost of installed solar power by more than fifty percent. Additional areas of environmentally sustainable investments include, but are not limited to:

Greenhouse gas capture and carbon credit generation (coal mine methane and landfill gas capture)

Alternative energy sources (wind, hydro, biofuels, geothermal, solar, fuel cells)

“Smart Grid” technologies (energy consumption management software and solutions)

Recycling (soils, metals, rubber, biomass)

Consumer products (organic foods, recycling incentives, packaging, automobiles)

The website URL where information about the CIR is available:

http://sustainability.duke.edu/campus_initiatives/investment/index.html

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

There are two possible approaches to this credit; institutions may pursue one or both. Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

Option 1: Positive Sustainability Investment

Institution invests in one or more of the following:

- **Sustainable industries** (e.g. renewable energy or sustainable forestry). This may include any investment directly in an entire industry sector as well as holdings of companies whose entire business is sustainable (e.g. a manufacturer of wind turbines).
- **Businesses selected for exemplary sustainability performance** (e.g. using criteria specified in a sustainable investment policy). This includes investments made, at least in part, because of a company's social or environmental performance. Existing stock in a company that happens to have socially or environmentally responsible practices should not be included unless the investment decision was based, at least in part, on the company's sustainability performance.
- **Sustainability investment funds** (e.g. a renewable energy or impact investment fund). This may include any fund with a mission of investing in a sustainable sector or industry (or multiple sectors), as well as any fund that is focused on purchasing bonds with sustainable goals.
- **Community development financial institutions** (CDFI) or the equivalent (including funds that invest primarily in CDFIs or the equivalent).
- **Socially responsible mutual funds with positive screens** (or the equivalent). Investment in a socially responsible 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 Option 1.
- **Green revolving loan funds** that are funded from the endowment

Option 2: Investor Engagement

Institution has policies and/or practices that meet one or more of the following criteria:

- Has a publicly available sustainable investment policy (e.g. to consider the social and/or environmental impacts of investment decisions in addition to financial considerations)
- Uses its sustainable investment policy to select and guide investment managers
- Has engaged in proxy voting to promote sustainability, either by its CIR or other committee or through the use of guidelines, during the previous three years
- Has 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

- Has a publicly available investment policy with negative screens, for example to prohibit investment in an industry (e.g. tobacco or weapons manufacturing) or participate in a divestment effort (e.g. targeting fossil fuel production or human rights violations)
- Engages in policy advocacy by participating in investor networks (e.g. Principles for Responsible Investment, Investor Network on Climate Risk, Interfaith Center on Corporate Responsibility) and/or engages in inter-organizational collaborations to share best practices

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

Total value of the investment pool:

6,100,000,000 US/Canadian \$

Value of holdings in each of the following categories::

	Value of Holdings
Sustainable industries (e.g. renewable energy or sustainable forestry)	230,000,000 US/Canadian \$
Businesses selected for exemplary sustainability performance (e.g. using criteria specified in a sustainable investment policy)	0 US/Canadian \$
Sustainability investment funds (e.g. a renewable energy or impact investment fund)	0 US/Canadian \$
Community development financial institutions (CDFIs) or the equivalent	5,000,000 US/Canadian \$
Socially responsible mutual funds with positive screens (or the equivalent)	0 US/Canadian \$
Green revolving loan funds that are funded from the endowment	0 US/Canadian \$

A brief description of the companies, funds, and/or institutions referenced above:

Environmentally sustainable investments include, but are not limited to:

- Greenhouse gas capture and carbon credit generation (coal mine methane and landfill gas capture)
- Alternative energy sources (wind, hydro, biofuels, geothermal, solar, fuel cells)
- “Smart Grid” technologies (energy consumption management software and solutions)
- Recycling (soils, metals, rubber, biomass)
- Consumer products (organic foods, recycling incentives, packaging, automobiles)

Duke University has committed to deposit up to \$5 million in the Latino Community Credit Union (LCCU) over the next five years. The investment will guarantee affordable financial services for low-income individuals in Durham who find it difficult to obtain loans and mortgages through conventional lending sources because they lack credit history. The money, which will be deposited in million-dollar increments, could provide funding for as much as 50 mortgages, or about 200 people. LCCU will dedicate the funds for low-income consumer and mortgage lending in Durham County, which is home to more than half of Duke's work force.

Does the institution have a publicly available sustainable investment policy?:

Yes

A copy of the sustainable investment policy:

The sustainable investment policy:

Advisory Committee on Investment Responsibility Revised October 4, 2013

Preamble

The Board of Trustees recognizes that Duke University's ability to meet its educational mission and financial goals requires enhancing the value of the endowment over the long term by investing in companies that achieve real growth. It also recognizes the importance of ethical practices. A mechanism is necessary to assist the President in making recommendations to the Board of Trustees in keeping with the Board's Guideline on Socially Responsible Investing, which is attached. The committee described below provides such a mechanism.

Advisory Committee on Investment Responsibility (ACIR)

The Advisory Committee on Investment Responsibility is a University body advisory to the President with the following functions:

- a. Receive issues referred to it by members of the Duke community;
- b. Monitor trends and activities in investment responsibility that have an impact on educational institutional investors;
- c. Conduct research, update Duke's files on companies, and provide analyses when requested by the President;
- d. Make recommendations to the President on how to vote proxies when the committee believes proxies should be voted outside the standard protocol of "economic interest;" whether to sponsor shareholder resolutions; whether to correspond with the management of corporations in which the University holds an identifiable equity position; when to divest; and on any new issues, which may warrant attention.

ACIR Membership

The Advisory Committee on Investment Responsibility shall include fourteen voting members: one trustee, two undergraduate and two graduate or professional students nominated respectively by the Duke Student Government and Graduate and Professional Student Council, one alumnus nominated by the Duke University Alumni Association, four faculty members nominated by the Academic Council, the University Counsel or his or her delegate, the Deputy Treasurer or his or her delegate, and two administrative appointees chosen by the President. Each representative body will be asked to nominate two individuals for each position and the President will select who will be invited to serve; the Board of Trustees will elect the trustee member of the committee.

Members shall be appointed for at least two years and may be reappointed, serving until their successors take office.

The ACIR Chair shall be appointed by the President from among the voting members.



ACIR Organization

The ACIR shall meet on a regular basis and on the call of the Chair.

The ACIR may ask individuals, from within the University or outside of it, to attend its meetings as consultants or otherwise provide advice and information.

To assist in its review of social responsibility proxy issues, the ACIR will have confidential access to data compiled by or on behalf of the University on companies the securities of which are held directly by the University and on fund managers. It is understood that certain pooled or commingled investment vehicles may not permit the degree of disclosure possible for direct holdings.

ACIR Operations

The ACIR shall examine issues of investment responsibility involving the University's endowment securities and propose to the President recommendations for action by the Trustees. Such recommendations shall take into consideration the following factors: (1) the facts and information the ACIR has gathered in its study of the issues; (2) whether the offending firm's culpability is substantial and proven; (3) the opinions expressed within the Duke community regarding the issues, including the degree of consensus; and (4) the legal and financial impact of the recommended action on the companies in question.

The Chair is responsible for setting agendas.

An annual report published by the ACIR will inform the University community of the issues examined, recommendations made by the ACIR, and the disposition by the President's office and the Board of Trustees. The committee will also maintain a public website to provide information about its activities to the Duke community. It may, at its discretion, sponsor or encourage the convening of occasional public meetings or forums of the Duke community to assess the views of members of the community.

In considering an allegation of substantial social injury, the ACIR shall investigate and analyze the allegation in whatever manner it deems appropriate and may then make a recommendation to the President, provided that the recommendation is first approved by the majority of the ACIR's members. Recommendations may call for voting Duke's shares in shareholder resolutions, making representations to management, divestment of securities, or other action as the ACIR deems appropriate.

The ACIR shall make its recommendation in writing to the President. The recommendation shall be accompanied by factual findings and an analysis of the question involved. Voting members of the ACIR who hold dissenting or divergent views may submit them in writing with the ACIR's recommendation.

Where the ACIR indicates a desire to deliberate on a proxy or divestment issue, the President will, where practicable, await a timely recommendation from the ACIR before taking action.

The President will make decisions on all recommendations for action under this policy.

■ ■ 2

Role of the President

The President will review the analysis and recommendation of the ACIR and, if he or she concurs, will forward a recommendation to the Board of Trustees.

If the President chooses not to forward the ACIR's recommendation to the Board of Trustees, he or she will explain his or her decision in writing to the ACIR.

■ 3

Guideline on Socially Responsible Investing August 20, 2004

To fulfill its educational and humanitarian purposes, Duke University must manage its investment assets wisely. Thus the primary fiduciary responsibility of the Board of Trustees in overseeing the management of the University's investment assets must be to maximize the financial return on those resources, taking into account the amount of risk appropriate for the University.

At the same time, the University wishes to be a good corporate citizen and a responsible and ethical investor. The authority of its Board of Trustees to take ethical factors into account when setting investment policies and practices derives from the very stewardship responsibilities which attend the ownership of endowment securities. We recognize that sometimes a corporation's policies or practices can cause substantial social injury—that they may have a gravely injurious impact on employees, consumers, and/or other individuals or groups that results from specific actions by a company. For example, corporate actions may violate domestic or international laws intended to protect individuals and/or groups against deprivation of health, safety, or civil, political, and human rights.

Thus for investments not governed by the Employee Retirement Income Security Act (ERISA), when the Board of Trustees judges that corporate policies or practices cause substantial social injury, it will give weight to this factor in investment practices related to corporate securities.

Actions the University takes may or may not materially affect an offending corporation, but such actions may have significant symbolic value. When the University community has engaged in substantive discourse on an issue and expressed broad concern that substantial social injury is being caused by such policies or practices, the president may make a recommendation to the Board of Trustees.

Where the Board of Trustees finds that a company's activities or policies cause substantial social injury, and that a desired change in the company's activities would have a direct and material effect in alleviating such injury, it may instruct the Duke University Management Company (DUMAC) to take appropriate action, including the exercise of the University's practicable shareholder rights to seek modification of the company's activities to eliminate or reduce the injury, using such means as

a) direct correspondence with management

b) proxy votes

c) sponsoring shareholder resolutions.

If the Board of Trustees further concludes that the company has been afforded reasonable opportunity to alter its activities, and that divestment will not impair the capacity of the University to carry out its educational mission (for example, by causing significant adverse action on the part of governmental agencies), then it may instruct DUMAC and its managers to divest the securities in question within a reasonable period of time.

Does the institution use its sustainable investment policy to select and guide investment managers?:

No

A brief description of how the policy is applied, including recent examples:

For investments not governed by the Employee Retirement Income Security Act (ERISA), when the Board of Trustees judges that corporate policies or practices cause substantial social injury, it will give weight to this factor in investment practices related to corporate securities.

Does the institution's sustainable investment policy include negative screens?:

No

A brief description of the negative screens and how they have been implemented:

Approximate percentage of the endowment that the negative screens apply to:

Has the institution engaged in proxy voting, either by its CIR or other committee or through the use of guidelines, to promote sustainability during the previous three years?:

Yes

A copy of the proxy voting guidelines or proxy record:

A brief description of how managers are adhering to proxy voting guidelines:

Guidelines prohibit managers from investing in the worst offenders in Sudan according to EIRIS Conflict Risk Network.

Has the 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?:

No

Examples of how the institution has engaged with corporations in its portfolio about sustainability issues during the previous three years:

Does the institution engage in policy advocacy by participating in investor networks and/or engaging in inter-organizational collaborations to share best practices?:

Yes

A brief description of the investor networks and/or collaborations:

Collaboration and idea sharing among other university peers with similar investment structure/philosophy.

The website URL where information about the institution's sustainable investment efforts is available:

http://sustainability.duke.edu/campus_initiatives/investment/index.html

Investment Disclosure

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

Institution makes a snapshot of its investment holdings available to the public, including the amount invested in each fund and/or company and proxy voting records. The snapshot of holdings is updated at least once per year.

Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

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

Does the institution make a snapshot of its investment holdings available to the public?:

No

The percentage of the total investment pool included in the snapshot of investment holdings:

0

A copy of the investment holdings snapshot:

The website URL where the holdings snapshot is publicly available:

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

Responsible Party

Charles Adair

Program Manager

Duke Carbon Offsets Initiative

Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, 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.
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9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

Title or keywords related to the innovative policy, practice, program, or outcome:

Duke Carbon Offsets Initiative

A brief description of the innovative policy, practice, program, or outcome :

Duke University established the Duke Carbon Offsets Initiative (DCOI) in 2009 to develop the University's strategy for meeting its offset goals in a way that provides significant local environmental, economic, and societal co-benefits beyond the benefits of greenhouse gas emission reductions. These goals include generating approximately 180,000 metric tons of CO₂e in emission reductions (approximately 55% of the University's emissions baseline) by 2024 and annually thereafter to meet the University's climate neutrality commitment, to supply the internal University community with offsets in the near term, and to serve as a resource for other universities and organizations, particularly those in the Southeast, that are interested in generating or purchasing offsets. The Initiative works both within Duke University and outside the University with other institutions and partners to build meaningful offset projects and to facilitate and catalyze the development of offset projects and offset market transactions, particularly those projects and transactions which offer innovative and cost-effective approaches.

DCOI is an innovative and unique program in that it is currently the only program at any University that focuses solely on designing, developing, implementing and scaling local offset projects with significant co-benefits. In addition, the Initiative ties back all projects to Duke University's academic mission by working closely with students, staff, and faculty on each of its projects. By using the resources and expertise available on campus, DCOI is working to create voluntary offset protocols that can be used by other universities to replicate offset projects in their regions. Finally, by having a team focused solely on offset projects, Duke University has been able to explore and accelerate unique project types in order to make these new project types accessible to other schools.

DCOI is currently piloting three carbon offset project types: swine-based agricultural methane, energy efficiency/renewable energy, and forestry. The University first focused on swine waste-to-energy because of the large number of swine farms in the state and the opportunity they present to eliminate a significant amount of greenhouse gas emissions in ways that will generate renewable energy and solve other major pollution problems, such as nutrient loading and odors. Currently, the Initiative is partnering with Duke Energy, Google Inc., and a North Carolina farm to pilot the first anaerobic-digester based innovative swine waste management system which meets stringent environmental performance standards and produces renewable energy to help Duke Energy meet its renewable energy and energy efficiency portfolio standard commitment for swine-based energy.

The University is also piloting an employee-based energy efficiency program in the local community that encourages Duke employees to implement weatherization upgrades to their homes through a revolving loan mechanism. This groundbreaking pilot project is testing the ability of creative financing mechanisms to reduce the cost of carbon offsets from energy efficiency, while the University will use its special expertise in the area to develop workable carbon accounting methodology. Also under development is a renewable energy pilot that looks to provide employees with information and discounts for renewable energy for their homes. In the end, the Offsets Initiative hopes to make energy efficiency and renewable energy projects at the household level easily accessible by providing education to employee homeowners to help them identify and navigate energy efficiency/renewable energy options, make these projects financially feasible, and connect employees to a network of vetted contractors. Thus, Duke's own employees will help it meet its climate neutrality commitment, making it truly a Duke community effort. The University will also collect data and conduct research on program results in order to identify and share best practices with other colleges and universities.

Finally, with respect to forestry-based offset projects, the University is evaluating opportunities to develop projects involving afforestation, avoided conversion and improved forest management. The University is working with the City and County of Durham to develop an urban forestry offsets pilot program. Through this program, the University will provide resources to help plant trees locally in exchange for the emission reductions associated with those trees.

Next on the University's list is carbon offsets from Peatland restoration. Working with faculty and staff from the Duke University Wetland Center and the Climate Action Reserve, DCOI is exploring the possibility of using carbon offsets as a monetization mechanism to fund wetland restoration in the Carolinas.

In addition to these specific projects, the Offsets Initiative has been working with a small group of colleges and universities who receive support from The Duke Endowment foundation to assist them in evaluating offset projects and strategies and is often consulted with at the state and national levels on offset project development and policy. Duke University continues to work with students, faculty, and staff on identifying and implementing new offset projects.

A brief description of any positive measurable outcomes associated with the innovation (if not reported above):

A letter of affirmation from an individual with relevant expertise:

[STARS DCOI Letter.docx](#)

Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of 5):

	Yes or No
Curriculum	---
Research	Yes
Campus Engagement	Yes
Public Engagement	Yes
Air & Climate	---
Buildings	---
Dining Services	---
Energy	Yes
Grounds	---
Purchasing	---

Transportation	---
Waste	Yes
Water	---
Coordination, Planning & Governance	---
Diversity & Affordability	---
Health, Wellbeing & Work	---
Investment	---

Other topic(s) that the innovation relates to that are not listed above:

The website URL where information about the innovation is available :

http://sustainability.duke.edu/carbon_offsets/

Responsible Party

Tavey Capps

Environmental Sustainability Director
Office of the Executive Vice President

Criteria

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For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

Title or keywords related to the innovative policy, practice, program, or outcome:

Duke Arts Festival: Sustainability Themed

A brief description of the innovative policy, practice, program, or outcome:

In 2013, the Duke Arts Festival followed a sustainability theme, in order to encourage the Duke community to use the arts to learn about and educate others about our ecological footprint. The themed festival was a collaboration between Sustainable Duke, Duke Sanitation and Recycling Services, the Office of the Vice Provost of the Arts, and the Duke Arts Festival. This festival was kicked off with a day-long project to build Fort Duke, a structure made entirely of boxes collected during student move-in day. The structure enclosed the statue of James B. Duke in front of the Duke Chapel. It was made up of more than 3500 boxes, breaking the world record for the largest recycled cardboard building.

The 2013 Duke Arts Festival invited students to imagine how their paintings, prints, sculptures, videos, photos, media, music, dance, poetry, and theater might address sustainability during Duke Arts Festival. The festival was designed with this theme to meet a new and growing demand for a channel of expression on this topic; in recent years, faculty artists, visiting artists, and student artists have shown amazing imagination, ingenuity and a growing interest to make art that addresses sustainability.

Duke University seeks to attain and maintain a place of leadership in all that we do. This includes leadership in environmental stewardship and sustainability on our campus. As Duke strives to integrate sustainability into all aspects of the campus life, it is important to think creatively about how to inspire and encourage sustainable behaviors. Infusing sustainability themes into the arts is one way to reach diverse audiences, inspire creative thinking about the impact humans have on the natural world, and help all to understand our connection to the environment in new ways.

Several special festival events were planned to reinforce the theme: Photographer and filmmaker Chris Jordan visited Duke on October 30-31 to share his powerfully rendered artworks about consumption, "Running the Numbers" and "Midway", with the Duke community, as well as participate in a panel discussion about mass consumption and how art can draw attention to critical issues of today. A local environmental artist worked with students on an installation in the Bryan Center that used discarded plastic bottles as source material. Pinar Yoldas, a graduate student in Visual and Media Studies, mounted her incredible "Very Loud Chamber Orchestra of Endangered Species" in Brown Gallery in the Bryan Center. Her work is "a roaring wake-up call" for all who inhabit planet earth.

The festival joined with Campus Sustainability Day on October 23, 2013 to celebrate Duke's progress towards our 2024 carbon neutrality goal.

A brief description of any positive measurable outcomes associated with the innovation (if not reported above):

3,500 boxes were reused in the construction of Fort Duke and hundreds of students, faculty and staff attended this and other sustainability-related events during the Duke Arts Festival.

A letter of affirmation from an individual with relevant expertise:

[Arts letter signed.docx](#)

Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):

	Yes or No
Curriculum	Yes
Research	No
Campus Engagement	Yes
Public Engagement	No
Air & Climate	No
Buildings	No
Dining Services	No
Energy	No
Grounds	No
Purchasing	Yes
Transportation	No
Waste	Yes
Water	Yes
Coordination, Planning & Governance	No
Diversity & Affordability	No
Health, Wellbeing & Work	No
Investment	No

Other topic(s) that the innovation relates to that are not listed above:

The website URL where information about the innovation is available:
[Campus Sustainability Data Collector | AASHE](#)

Innovation 3

Criteria

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

Innovation 4

Criteria

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