



Villanova 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:

Master

Institutional control:

Private non-profit

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

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

Reason for excluding agricultural school:

Villanova does not have a School of Agriculture

Reason for excluding medical school:

Villanova does not have a School of Medicine

Reason for excluding pharmacy school:

Villanova does not have a School of Pharmacy

Reason for excluding public health school:

Villanova does not have a School of Public Health

Reason for excluding veterinary school:

Villanova does not have a School of Veterinary

Reason for excluding satellite campus:

While Villanova offers courses/programs at "Additional Locations," it does not have a satellite or "Branch Campus" as defined by Middle States, the University's accrediting body.

Reason for excluding hospital:

Villanova does not have a University run Hospital

Reason for excluding farm:

Villanova does not have a University owned farm

Reason for excluding agricultural experiment station:

Villanova does not participate in agricultural experimentation

Narrative:

Villanova does not include a University-owned conference center because the conference center is managed by Aramark Corporation.

Operational Characteristics

Criteria

n/a

Submission Note:

Total campus area does not include the Villanova Conference Center, which encompasses 30+ acres.

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

Endowment size:

501,483,000 US/Canadian \$

Total campus area:

225 Acres

IECC climate region:

Mixed-Humid

Locale:

Urban fringe of large city

Gross floor area of building space:

3,388,257 Gross Square Feet

Conditioned floor area:

3,388,257 Square Feet

Floor area of laboratory space:

118,714 Square Feet

Floor area of healthcare space:

0 Square Feet

Floor area of other energy intensive space:

145,017 Square Feet

Floor area of residential space:

742,343 Square Feet

Electricity use by source::

	Percentage of total electricity use (0-100)
Biomass	0
Coal	44.50
Geothermal	0
Hydro	1.90
Natural gas	16.20
Nuclear	34.50
Solar photovoltaic	0
Wind	1.70
Other (please specify and explain below)	1.20

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

Other includes landfill gas, waste and oil. Numbers were obtained from the Quarterly State of the Market Report for PJM

http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2013/2013q3-som-pjm-sec3.pdf

Energy used for heating buildings, by source::

	Percentage of total energy used to heat buildings (0-100)
Biomass	---
Coal	---
Electricity	---

Fuel oil	5
Geothermal	0.10
Natural gas	94.90
Other (please specify and explain below)	---

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

Villanova has a steam plant on campus that provides heat to the entire campus. The plant runs on natural gas, except in extreme weather conditions when we are asked to use #6 Fuel.

Academics and Demographics

Criteria

n/a

Submission Note:

Employee head count includes full time faculty and FT staff only.

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

Number of academic divisions:

6

Number of academic departments (or the equivalent):

63

Full-time equivalent enrollment:

9,563

Full-time equivalent of employees:

2,392

Full-time equivalent of distance education students:

890

Total number of undergraduate students:

6,837

Total number of graduate students:

3,655

Number of degree-seeking students:

10,293

Number of non-credit students:

20,179

Number of employees:

2,743

Number of residential students:

4,455

Number of residential employees:

12

Number of in-patient hospital beds:

0

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

Natalie Walker

Student
Engineering

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	8,484	3,159
Number of sustainability courses offered	24	53
Number of courses offered that include sustainability	205	105

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

23

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

63

Number of years covered by the data:

Three

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

[2011_2014_Courses_Descriptions.xls](#)

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

See uploaded document [2011_2014_Courses_Descriptions](#)

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

<http://www1.villanova.edu/villanova/sustainability/AcademicsandResearchSustainability/CourseOfferingsSustainability.html>

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

The university has a sustainability minor and sustainable engineering master's degree. This is the description of sustainability used for the Sustainability Minor, this is not an identified definition but is a view into how the university views sustainability.

"Sustainability does not just consider the environmental dimension; but also the social and economic dimensions which, when combined, make up the sustainability model; a standard of ethical responsibility many corporations, institutions and governments have adopted a set of guiding principles. The fact is, if we want future generations to enjoy a healthy, equitable and prosperous Earth then we must modify behaviors and policies now to re-case the way we live."

You can find more information about the sustainable engineering masters degree here:

[http://www1.villanova.edu/villanova/engineering/departments/mechanical/graduate/sustainability.](http://www1.villanova.edu/villanova/engineering/departments/mechanical/graduate/sustainability.html)

html

In order to complete the course inventory, our team contacted department heads in departments that were identified as offering sustainability courses or courses that include sustainability. The heads of each department were given descriptions of what qualifies as a sustainability course or course that includes sustainability. Given the provided criteria, department heads responded by identifying and providing names and course numbers for both graduate and undergraduate courses in each category. Our team then searched official online course references to provide the descriptions for each course.

Once all of the courses were compiled, they were counted. The office of enrollment management assisted in providing the information for the number of courses offered by the institution. Data for total number of courses offered by the institution is based off of the two academic years of 2011-2012 and 2012-2013.

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

Each offering or section of a course was counted as an individual course

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

The Law school was included in this analysis in total for 2013-2014.

Total number of courses offered by the institution are based off of numbers for the 2011-2014 school year.

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

	Yes or No
Internships	No
Practicums	No
Independent study	No
Special topics	Yes

Thesis/dissertation	No
Clinical	No
Physical education	No
Performance arts	No

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

Natalie Walker

Student
Engineering

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:

Sustainability Learning Outcome graduate numbers are based on a one year period from academic years between 2013-2014.

"---" 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:

413

Total number of graduates from degree programs:

3,063

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

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

BA, Environmental Studies, Dept of Geography and Environment
BS, Environmental Science, Dept of Geography and Environment
BS, Center for Real Estate, Co-Major
BA, Geography, Dept Arts and Sciences
BSN, College of Nursing
Minor, Sustainability Studies, across undergraduate Colleges
Minor, Environmental Studies
MSN, College of Nursing
MS, Sustainable Engineering, Dept of Engineering
MS, Water Resources and Environmental Engineering, Dept of Engineering
Certificate, Sustainable Engineering, Dept of Engineering
Certificate, Urban Water Resources Design, Dept of Engineering
MBA, specialization in Real Estate Development
J.D., specialization in Environmental Law

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

- 1) BA, Environmental Studies, Dept of Geography and Environment
Learning Outcome: Demonstrate effective oral and written communication necessary to construct, evaluate, and present sustainable solutions to environmental problems.
- 2) BS, Environmental Science, Dept of Geography and Environment
Learning Outcome: Demonstrate effective oral and written communication necessary to construct, evaluate, and present sustainable solutions to environmental problems.
- 3) BS, Center for Real Estate, Co-Major
Learning Outcome: Demonstrate knowledge of sustainability topics related to Real Estate Development. Students are required to demonstrate knowledge, perform research, and present capstone projects related to sustainable neighborhood development, land use planning, workplace management, automotive trends, and other sustainability related topics.
- 4) MS, Geography, Dept Arts and Sciences
Learning Outcome: Students and graduates appreciate that culture plays a large role in how different societies manage a sustainable environment.
- 5) BSN, College of Nursing
Learning Outcome: The American Nurses Association has a scope & standards of practice that influences our curriculum. Standard 16 of the Scope & Standards is the environmental health standard, it includes environmentally sustainable practices in nursing practice
- 6) Minor, Sustainability Studies, across undergraduate Colleges
Learning Outcome: Describe the technical and social aspects of a commitment to sustainability; describe the ethical and philosophical underpinnings of a commitment to sustainability; evaluate environmental processes and their nexus with human activity to examine sustainable (or un-sustainable) practices; examine and describe the human dimension of global environmental change; describe the links

between the global economic environment, resource availability, and distribution, and their effects on sustainable practices; and define the linkages between non-sustainable practices, resource shortages, and regional conflict.

7) Minor, Environmental Studies

Learning Outcome: Demonstrate effective oral and written communication necessary to construct, evaluate, and present sustainable solutions to environmental problems.

8) MSN, College of Nursing

Learning Outcomes: The American Nurses Association has a scope & standards of practice that influences our curriculum. Standard 16 of the Scope & Standards is the environmental health standard, it includes environmentally sustainable practices in nursing practice

9) MS, Sustainable Engineering, Dept of Engineering

Learning Outcome: One of just a few programs in the country and one of only two currently available entirely online, Villanova's MSSE program employs an in depth whole-systems approach to problem-solving through a life-cycle lens. The program's practical approach is based on current and future real-life situations, and students work in small teams to evaluate and solve problems that companies are facing worldwide.

10) MS, Water Resources and Environmental Engineering, Dept of Engineering

Learning Outcomes: An in depth understanding of the theories and concepts within the water resources and environmental engineering fields.

11) Certificate, Sustainable Engineering, Dept of Engineering

Learning Outcome: Students in this certificate program demonstrate knowledge of a whole systems thinking approach to problem-solving through a life-cycle lens.

12) Certificate, Urban Water Resources Design, Dept of Engineering

Learning Outcome: An understanding of the theories and concepts within the water resources and environmental engineering fields.

13) MBA, specialization in Real Estate Development

Learning Outcome: Students are expected to demonstrate knowledge about sustainability related Real Estate topics. Students are exposed to experts in sustainability fields and perform case study research.

14) JD, specialization in Environmental Law

Learning Outcome - An understanding of the law that impacts environmental issues to ensure compliance with regulations and to protect natural resources

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

Undergraduate Program

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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*.

"---" 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):

BA, Environmental Studies

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

This multidisciplinary program focuses on the interface between environmental science and social sciences, including public policy, political science, law, economics, sociology, geography, and planning. Toward this end, our graduates will have a fundamental understanding of the scientific processes (i.e. biological, chemical, geomorphic, and geologic) that underlie the composition of the natural landscape, coupled with a foundation in the social sciences that underlie the diversity and composition of human landscape. The program is founded on the principle that the social sciences - both as a body of knowledge and as the basis for structuring human societal norms - must be applied to assess the direct and indirect influences of human activities on the integrity of Earth's Systems.

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

<http://www1.villanova.edu/villanova/artsci/geoenv/academicprograms/bainenvironmentalstudies.htm>

1

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

BS, Environmental Science

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

This science program provides the technical background for understanding biological, chemical, and physical aspects of the environment. It focuses on the application of biological, chemical, and physical principles to understand natural and physical environments. Toward this end, the program's graduates will gain an understanding of, and appreciation for the processes and the interactions that occur both within and between the atmosphere, biosphere, lithosphere, and hydrosphere. The program is founded on the principle that science - both as a body of knowledge and as a process that is grounded in the intellectual inquiry - must be applied to assess and address the direct and indirect influences of human activities on the integrity of the Earth's systems.

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

<http://www1.villanova.edu/villanova/artsci/geoenv/academicprograms/bsinenvironmentalscience.htm>

1

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

BS, Civil and Environmental Engineering

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

Graduates with a Bachelor of Science in Civil Engineering from Villanova University are prepared to:

- 1) Use their broad-based civil engineering backgrounds to perform as entry-level engineers in general civil engineering or in environmental, geotechnical, structural, transportation, or water resources engineering.
- 2) Enter graduate schools in the disciplines listed above or closely related disciplines, as well as other areas such as business and law.
- 3) Continue the process of life-long learning as required for long-term personal and professional growth.
- 4) Recognize their professional and ethical responsibilities to society as members of the engineering professional community.
- 5) Use communication, technical, and teamwork skills to help themselves and their employers succeed.
- 6) Relate their personal and professional lives to the Judaeo-Christian, humanistic tradition.

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

<http://www1.villanova.edu/villanova/engineering/departments/civil.html>

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

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, Sustainability Studies
STARS Reporting Tool | AASHE

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

An interdisciplinary minor that examines ways to limit actions that adversely affect the environment. Topics include improved utilization of natural resources; options for social, economic, and cultural development; role of science; role of engineering; role of business; role of government; and role of people.

Program Learning Objectives:

- Describe the technical and social aspects of a commitment to sustainability.
- Describe the ethical and philosophical underpinnings of a commitment to sustainability.
- Evaluate environmental processes and their nexus with human activity to examine sustainable (or un-sustainable) practices.
- Examine and describe the human dimension of global environmental change.
- Describe the links between the global economic environment, resource availability and distribution, and their effects on sustainable practices.
- Define the linkages between non-sustainable practices, resource shortages, and regional conflict.

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

<http://www1.villanova.edu/villanova/artsci/geoenv/academicprograms/sustainabilityminor/courses.html>

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

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

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

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

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

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

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

Graduate Program

Responsible Party

Natalie Walker

Student
Engineering

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):

MS, Sustainable Engineering

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

One of just a few programs in the country and one of only two currently available entirely online, Villanova's MSSE program employs a whole-systems approach to problem-solving through a life-cycle lens. The program's practical approach is based on current and future real-life situations, and students work in small teams to evaluate and solve problems that companies are facing worldwide.

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

<http://www1.villanova.edu/villanova/engineering/academics/graduate/interdis/sustainability.html>

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

MS, Water Resources and Environmental Engineering

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

The primary goal of the graduate program is to provide advanced level courses of study in environmental and water resources engineering. The curriculum presents an engineering view of these fields, although students with science backgrounds constitute a significant portion of the total enrollment

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

<http://www1.villanova.edu/villanova/engineering/departments/civil/graduate/masters/waterresourcesenviron.html>

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

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

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

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

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):

Certificate, Sustainable Engineering

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

This certificate program is designed to expose master's level engineering students to expertise and knowledge with regard to the full environmental, social, and economic aspects of sustainable engineering. The concentration requires 5 courses. A minimum of 2 courses must be selected from the core course list while the remaining 3 courses must be selected from one of the Sustainable Engineering Master's program tracks.

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

<http://www1.villanova.edu/villanova/engineering/academics/graduate/certificates/sec.html>

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

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

The program is geared to Civil Engineers and Water Resource Professionals engaged in design of urban hydraulic and hydrologic systems in the Philadelphia metropolitan and suburban areas. The certificate consists of four graduate level courses. Program length can vary between 4 and 6 semesters depending upon when the student starts the program.

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

<http://www1.villanova.edu/villanova/engineering/departments/civil/graduate/certificate.html>

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

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

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

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

Immersive Experience

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

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

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:

Villanova offers various sustainability-focused immersive programs in a few different disciplines. Each are listed and described below.

1) Augustine and Cultural Seminar (ACS) Environmental Learning Community

This program includes a humanities seminar that focuses holistically on the question "Who Am I?" in relation to the natural environment and human culture. Students participate in a one-credit workshop style class called Villanova Experience (VEXP) that meets weekly to explore effective communications, issues and their impact on the natural world, ways to care for the natural world, and small group activities. Students all live together in a on-campus residence hall and participate in off-campus field trips to locations such as organic urban farms, eco-housing developments, and manufacturers of Eco-friendly products.

URL:

<http://www1.villanova.edu/villanova/studentlife/learningcommunities/residents/environmental.htm>

2) Engineering Service Learning Trips.

All Engineering Service learning projects are designed with the objective to developing organizational sustainability within each partner community. Students act as outside consultants providing technical support and engineering design analysis. The goal of all projects is to support projects and partner organizations so that they may be self sustaining within their own communities. Students participating in trips may also be involved in sources, capstone projects, or independent studies which relate to and support trips. In addition to participating in a week-long trip to partner countries, students are involved in ongoing design and implementation meetings prior to and following each trip. Trips are in five locations. Each trip is described below.

URL:

<http://www1.villanova.edu/villanova/engineering/service/learning.html>

A) Cambodia: College of Engineering students travel to Cambodia to support development efforts at the Caramanico School, built by Anne and Thomas Caramanico PE, CE '71, MSCE '83. This program focuses on the design and implementation of a model school for demonstrating best-practices in education and sustainability.

B) Water for Waslala - Nicaragua: This service learning opportunity leads engineering students to the central mountains of Nicaragua to evaluate and develop water resources, renewable energy and communication systems.

C) Cheypo Bayano Mission - Panama: Work with missionary priest Father Wally involves the development of a water resources master plan, flood control and prevention, and the use of solar array to provide for the community's energy needs

D) SITMo and Stairway Foundation - Philippines: Development initiatives in the Philippines are aimed at improving the quality of life for people living in isolated communities. Projects include water supply, agricultural mechanization, micro-hydro electrification and solid waste management. The University is presenting working with Save the Ifugao Terraces Movement (SITMo) and The Stairway Foundation.

E) Profugo - India: Students work to develop a Center for Sustainability within community. The main focus of this program is to design a community center that focuses on sustainability and provides workshops related to sustainability topics such as agriculture, water, and the environment.

3) Campus Ministry Service Break Trips: These trips are week long experiences which allow students, faculty, staff and alumni to get involved in serving the community. Through service and reflections, volunteers are transformed by identifying their connection with our global community as they experience another culture, spirituality, and socio-economic situation. We challenge our participants to become global citizens - not just citizens of the United States - as they use their education to change the lives of the poor. We hope this experience helps the volunteer to develop a personal commitment to making the world a better place by calling attention to the injustices of racism, poverty, sexism, etc. Trips specifically related to sustainability are described below.

URL:

<http://www1.villanova.edu/villanova/mission/campusministry/service/breakexperiences/listing.htm>

A) Bethlehem Farm - West Virginia: Located in central Appalachia, Bethlehem Farm is an intentional Catholic community that strives to transform lives through serving the local community and teaching sustainability. During the week at the Farm, volunteers work the surrounding community, pray together, learn about and from the people of Appalachia, and experience ways of practicing and living a sustainable life. Volunteers may find themselves doing a variety of work, from working alongside a family in repairing their home to practicing sustainability by working the farm and preparing the food it produces. This is a great domestic mission experience focused on the Farm's four cornerstones of service, prayer, simplicity, and community.

URL:

<http://www.bethlehemfarm.net/main/>

B) Rancho Mastatal - Costa Rica - Environmental Service Experience: During this week of immersion, students live on Rancho Mastatal, an environmentally sustainable ranch. Students learn practices of sustainability by living at the ranch, and they have opportunities to learn first-hand from the tropical forests of Mastatal. Students also have opportunities to learn about the economic and cultural make-up of the local Costa Rican communities, and each student participates in 2-3 home stays in the Mastatal community. Throughout the week, students may work on rain forest restoration projects on the ranch, in parks and in gardens. Furthermore, students may have an opportunity to visit local schools in order to better understand the Costa Rican educational system. Students learn the positives and the challenges associated with Costa Rica's free public education.

URL:

<http://www.ranchomastatal.com>

C) Navajo Nation: NM, Via International - Northern New Mexico is one of the most unique and culturally distinct areas of the United States. It is the home of both ancient Native American communities and pueblos founded long before the inception of the United States. Traditional Navajo refer to themselves as Dine'. The real name for Navajo Nation is Dinétah. Visiting Dinétah offers a rare opportunity to connect with ourselves, each other, and the natural world through a unique blend of cultural immersion, environmental intimacy, and service opportunities that can be deeply inspiring and transformational. Volunteers will enjoy the beauty of the natural world while exploring a sense of place and relation thanks to the deep traditions and cultures of the region. Volunteers will stay on a farm that uses both modern and traditional agricultural practices and visit with Navajo people. Work may include farming, construction, water conservation or land and cultural restoration efforts in local and native communities. This trip is directly related to sustainability due to the fact that the farm aims to be as fully self-reliant as possible, implementing the use of as many local resources as possible before relying on outside materials.

URL:

<http://www.viainternational.org/new-mexico.html>

D) Costa Rica, Playa Hermosa: Volunteers will work and stay at the Playa Hermosa Turtle Reserve on the west coast of Costa Rica. The primary focus of this trip is global conservation. The reserve's main purpose is to protect the Olive Ridley sea turtles, which are poached in Costa Rica. Volunteers will be involved in everything from finding nests, digging up eggs, relocating them to a hatchery, and bringing hatched baby sea turtles to the sea. Most of the work is done at night when turtles lay their eggs. The days will be spent learning about protecting the environment, miscellaneous work around the reserve, and cleaning beaches. This is an educational site that employs hands

on experiential learning techniques using the coast as the classroom. You will also have the opportunity to work with Costa Rican high-school students from La Gloria Colegio and in a local elementary school. Almost all work is outdoors, experiencing firsthand the environment of Costa Rica, and working to protect it.

E) Camden, NJ - Center for Environmental Transformation: The Center for Environmental Transformation's goal is to provide you opportunities to reach deeper understandings of your connection to the earth and to those communities and people who often disproportionately bear the environmental costs of our 21st century lifestyle. Volunteers will participate in Hands-on projects in the neighborhood such as: gardening, greening lots, working with children, and demolition projects, Eco-reality tours of the neighborhood and city. In addition, volunteers take part in interactive learning sessions on sustainability, environmental justice, Camden and its history, becoming agents of change, etc.

URL:

<http://camdencenterfortransformation.org>

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

<http://www1.villanova.edu/villanova/sustainability/programs.html>

Sustainability Literacy Assessment

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

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

Incentives for Developing Courses

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

http://www1.villanova.edu/content/villanova/artsci/vce3/events/PreviousVCE3Events/_jcr_content/pagecontent/download_2/file.res/Sustainability%20Across%20the%20Curriculum%20Workshop%20-%20May%2012/13%2c%202014

"---" 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:

Interested faculty may apply to be a part of the Faculty Sustainability Workshop organized by the Villanova Center for Energy and Environmental Education (VCE3). In the spring of 2014, the workshop had 40 participating faculty members. The workshop is a two day educational session on sustainable education and curriculum development. Over the summer, participating faculty work on developing or altering an existing syllabus to include sustainable learning outcomes. Digital and personnel resources are made available. Final versions of the new syllabus are due at the end of the summer. Faculty who complete the program are given a cash stipend as compensation for time. Although faculty are not required to teach the newly revised course, they are highly encouraged to do so and are required to get written sign off on the revised syllabus from their department head.

During the academic year the Center for Energy and Environmental Education hosts monthly brown bag lunch sessions to discuss topics related to curriculum development and new sustainability ideas/initiatives. This helps provide ongoing education to any interested faculty member, as well as a place for networking and inter-campus connection.

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

Faculty who complete the program are given a cash stipend, as well as a two day educational workshop and resources throughout the process.

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

<https://www1.villanova.edu/villanova/media/pressreleases/2014/0508.html>

Campus as a Living Laboratory

Responsible Party

Natalie Walker

Student

Engineering

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	No
Water	Yes
Coordination, Planning & Governance	No
Diversity & Affordability	No
Health, Wellbeing & Work	Yes
Investment	Yes
Public Engagement	No
Other	No

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:

1.) Sustainability Plan

Description: A group of 5 graduate students are working with the sustainability manager to calculate Villanova's greenhouse gas emissions, and identifying ways to reduce the University's emissions. Two of the five students are working over the summer to develop a campus wide sustainability plan that will involve reduction in campus greenhouse gas emissions. The students are also expected to consider projected regional climate change effects in their suggestions for the campus wide sustainability plan.

Positive outcome: Although the plan is not completed yet, the hope is that this sustainability plan will be accepted by the university and implemented as part of our overall campus sustainability efforts. This project is not part of a specific class or other educational requirement, but the students do obtain clear learning benefits from participating in the plan's development, such as research, project

development, problem solving and team work.

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:

1) Green Roof

Description: The Green Roof was constructed on a retrofit of a small portion of Villanova's Center for Engineering and Education Research building. The Green Roof covers about 530 sqft. It was designed to capture and retain the first half inch of any precipitation event to reduce downstream stormwater volumes, erosion, and non-point source pollution. The Green Roof over-performs the design and protects the underlying roof material.

Positive Outcomes: Students are able to collect data and observe the functioning of a green roof located on the CEER building on campus. Students can observe how a green roof impacts energy usage and water management on our facilities.

More details at:

[http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over
view_8.6.13.pdf](http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf)

2.) LEED EBOM Assessment

Description: One of the Master of Science in sustainable engineering courses completed a LEED EBOM assessment on two campus buildings. One of the buildings was already a LEED DB+C certified building, the other is planned for renovation in the next year. The students presented their findings to University facilities representatives.

Positive outcome: Although neither of the buildings we be attempting LEED EBOM certification, there will be positive sustainable results from the students' efforts. Their work revealed that existing metering in the LEED certified building was not working correctly, and the other building expected to be renovated is now going for LEED CI certification.

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:

1.) Community Supported Agriculture

Description: As part of a student project, a group of students developed a proposal for Villanova to serve as a Community Supported Agriculture (CSA) pick-up site. The proposal was developed while working with Campus Dining Services who suggested that the share dates coordinate with the academic year (helping to prevent against abandoned shares due to vacation or breaks).

Positive Outcome: The program has been implemented, and on average we get around 50 campus participants per share season (growing ever year).

Website:

<http://www1.villanova.edu/villanova/services/dining/sustainability/VillanovasCSA.html>

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:

1.) Lighting Upgrades and Innovation

Description: as part of their senior project, a group of electrical engineers are working with Lutron to design a new lighting design for a campus classroom. The students will not only design the lighting system, including controls, but will also help with the install and monitor energy use before and after the upgrade.

Positive Outcomes: The project has been completed. Final results will not be known until a few months after the install occurs.

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:

1) Fedigan Rain-Gardens

Description: Bio-infiltration and bio-retention gardens that capture rooftop runoff. The east rain garden detains the water and releases it back into the atmosphere through evapotranspiration and slow release through the underdrain. The west rain garden utilizes evapotranspiration and infiltration. Additionally, porous soils and vegetation are used to increase retention and infiltration.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

2) Bio-filtration Rain-Garden

Description: The Rain Garden was created by retrofitting an existing traffic island on Villanova's campus. The facility intercepts runoff from a highly impervious (50%) student parking area and road (0.53 ha) that was previously collected by inlets and delivered through culverts to a dry detention basin. It is designed to control runoff from smaller storms through capture and infiltration of the first flush within the bowl and soil void space storage. The bowl is approximately 18 inches deep, has recession rate of approximately 0.75 to 0.9 cm/hr with an approximate ratio of impervious to infiltrating surfaces of 12 to 1. There is no underdrain. Maintenance consists of trash removal, invasive species control, and yearly harvesting/composting the grasses.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

3) Pervious Concrete / Porous Asphalt

Description: The site is a formerly standard asphalt paved area located behind Mendel Hall on the Villanova campus. This site consists of infiltration bed overlain by a 15.2 x 9.1 m pervious concrete surface and an adjacent, equally sized porous asphalt surface. It captures runoff from a campus parking area, passes the flow through either the pervious concrete or porous asphalt surface course, and infiltrates it through a rock bed into the ground. The site receives continuous use by faculty and staff vehicles. The site is designed to capture and infiltrate storms of up to 5 cm of rainfall. From these events there is no runoff from the site. The base of infiltration beds are level and

range from 0.9 to 1.5 m deep and are filled with washed stone with approximately 40% void space. In extreme events, when capacity of storage beds is exceeded, flows are permitted to exit the site and flow out to the original storm sewer system. A vacuum street sweeper is used two/three times of the year for maintenance

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf

4) West Campus Rain Garden

Description: This rain garden was constructed to reduce impervious surface draining to the Darby Creek watershed through disconnection of currently directly connected downspouts. Over 70,000 cf of water is estimated to be removed from overflow per year. The gardens are designed to capture half inch rain off the roof top with outflow going to a rain garden. Overflow for larger storms will be through overflow of a small berm and then out preexisting catch basins in the lawn area.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf

5) Quad Pervious Pavers

Description: An infiltration system using permeable pavement in an existing paved area in the center of Villanova campus. The contributing watershed area is approximately 50,000 sqft and is highly impervious, consisting of pedestrian walkways, rooftops, and some grassed areas. The rooftops and some adjacent paved areas are directly connected to three separate rock storage beds. The rock beds are linked through piping systems to distribute the runoff between beds and allow for overflow during major storm events. The site was designed to capture and infiltrate the first two inches of runoff thereby reducing downstream stormwater volumes, stream bank erosion, and non-point source pollution.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf

Positive Outcomes: Each of these rain-garden and porous pavement solutions allow students to understand how rainwater infiltrates various surfaces. Through comparing various on-campus "living laboratories" students are provided with hands-on resources for comparing and analyzing techniques for implementing sustainable stormwater management solutions on campus grounds.

outcomes associated with the work:

1.) Fair Trade

Description: as part of becoming a Fair Trade certified campus, Villanova is required to provide fair trade certified apparel in the bookstore. Students were heavily involved in Villanova's Fair Trade certification process, and as a result worked with our bookstore purchasing department to get these new products supplied on a regular basis.

Positive outcome: as a result of the students work, Villanova is now a Fair Trade certified campus. Although this work was not directly related to a class project or other educational requirements, the students involved did learn about the purchasing process, proposal development, and business cost analysis.

Website:

https://www1.villanova.edu/villanova/artsci/peaceandjustice/events_awards/fairtrade.html

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:

1.) Bike Share Program

Description: Students are working with the Sustainability Manager to develop a bike share program. The initiative started out of one student's senior thesis to assess student interest in a bike share program and where students could bike to easily and safely from campus. Based upon the student's findings, we have developed a semester and/or year long bike share program for the 2014 fall semester.

Positive Outcomes: The bike share program began in the fall of 2014. The students were heavily involved in the design of the program, as well as the source for the bikes. The initial research for this program was done as part of a senior thesis, but the program development was done with a group of interested students outside of class work. Students involved developed their research skills, as well as program development and marketing.

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

1) Infiltration Trench

Description: This trench is designed to capture approximately the first 0.6 cm of runoff from an elevated parking deck and infiltrate it through a rock bed into the ground. The rock bed has a surface area of approximately 7.2 m² and is 3 m deep. Overflow from the trench first exits through a pipe at the surface into the inlet. During extreme events, if the overflow pipe is full, any additional runoff exits through the porous pavers placed above the infiltration trench. This site is the only study site on campus with 100% impervious drainage.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

2) Treatment Train

Description: This treatment train involves a vegetated swale, followed by two rain gardens in series, and an infiltration trench in order to capture 1 inch storm event. The swale and rain garden act as a pre-treatment to the infiltration trench to reduce sediment load to the infiltration trench. There are six monitoring and sample collection sites which analyze water-quality and quantity changes through storm events

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

3) Constructed Stormwater Wetland

Description: Existing stormwater detention basin on Villanova campus was converted to an extended detention wetland. The site has adequate vegetation growth over the past two years and other species have moved into the ecosystem. The 0.8 acre CSW treats runoff from a 41 acre watershed that includes at least 16 acres of impervious surface. The watershed includes residence halls, classroom buildings, parking, roads, and railroad. The contributing watershed forms the headwaters of a watershed listed as medium priority on the degraded watershed list, and treats flows that impact a high priority stream segment on the 303(d) list.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

4) Rain Garden Weighting Lysimeters

Description: Weighing lysimeters are instruments that measure evapotranspiration by utilizing a mass balance analysis. The change in weight of the entire lysimeter system is equal to what comes in due to the precipitation minus what leaves the system through water draining out of the lysimeter through evapotranspiration. They are located on the top berm of the constructed stormwater wetland

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Over

[view_8.6.13.pdf](#)

5) Constructed Stormwater Wetland Evapotranspiration

Description: The Constructed Stormwater Wetland is mimicked in non-weighing lysimeter to directly measure evapotranspiration. A Mariotte bottle maintains a constant water level in the constructed stormwater wetland mesocosm and changes in water level in the mesocosm, as measured by ultrasonic level, can be directly correlated to the rate of evapotranspiration. This system is located at the top

berm of a constructed stormwater wetland.

More Information:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf

Positive Outcomes: Each of the above mentioned projects allow students to study stormwater management in a comprehensive, hands-on manner. Students are able to research, collect data, and observe the functioning of each of these systems.

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:

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:

1) Nursing Student Senior Projects

Description: Senior year nursing students are required to work with a community health clinic site to develop an educational program. Recently, to fulfill this requirement, two groups have worked with the sustainability manager to develop sustainability education that has a health impact. The first being an integrative pest management educational handout to students to teach residents about safe preventative pest management. The second project revolved around healthy and sustainable eating, encouraging reduced meat diets and seasonal eating.

Positive Outcomes: The educational material these students developed will be used regularly to help teach the campus audience healthy sustainable habits.

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:

1.) Student Managed Fund (SMF)

Description: The SMF is a recognized campus student group that invests money in accordance to the United States Catholic Bishop guidelines: protecting human life; promoting human dignity; reducing arms production; pursuing economic justice; protecting the environment; and encouraging corporate responsibility. The group uses positive screens to identify socially responsible mutual funds.

Positive Outcomes: Students obtain valuable knowledge and skills from participating in SMF, including financial, and ethical analysis.

The following represents end of the year funds FY10 = \$424,457, FY11 = \$470,632, and FY12 = \$434,643.

Website:

<http://www.students.villanova.edu/smf/index.html>

2.) Villanova Equity Society

Description: The Villanova Equity Society is a recognized campus student group that invests money in two domestic, long-only equity portfolios. Funds are assessed based on top down fundamental analysis, social responsibility screening and technical indicators. The group leaders also sponsor learning seminars and facilitate networking opportunities.

Positive outcomes: Students who participate in this program learn real life financial skills with the opportunity to explore the value of looking beyond the dollar with social responsibility screening.

Website:

<http://villanovaequity.com/>

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 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:

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

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

Natalie Walker

Student

Engineering

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.

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

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

35

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

73

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

6

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

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

[Academic Research_Professors.xlsx](#)

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

Charles Coe, Dept of Chemical Engineering
 Dorothy Skaf, Dept of Chemical Engineering
 Justinus Satrio, Dept of Chemical Engineering
 Michael Smith, Dept of Chemical Engineering
 Randy Weinstein, Dept of Chemical Engineering
 Vito Punzi, Dept of Chemical Engineering
 William Kelly, Dept of Chemical Engineering
 Zuyi Huang, Dept of Chemical Engineering

Andrea Welker, Dept of Civil and Environmental Engineering
 Bridget Wadzuk, Dept of Civil and Environmental Engineering
 David Dinehart, Dept of Civil and Environmental Engineering
 Eric Musselman, Dept of Civil and Environmental Engineering
 John Komlos, Dept of Civil and Environmental Engineering
 Joseph Yost, Dept of Civil and Environmental Engineering
 Leslie Myers McCarthy; Dept of Civil and Environmental Engineering
 Metin Duran, Dept of Civil and Environmental Engineering
 Robert Traver, Dept of Civil and Environmental Engineering, Director VACSE
 Ronald Chadderton, Dept of Civil and Environmental Engineering
 Seri Park; Dept of Civil and Environmental Engineering
 Shawn Gross, Dept of Civil and Environmental Engineering
 Wenquig Xu, Dept of Civil and Environmental Engineering

Robert Calverly, Dept of Electrical and Computer Science
 Pritpal Singh, Dept of Electrical and Computer Science

Aaron Wemhoff, Dept of Mechanical Engineering
 Alfonso Ortega, Dept of Mechanical Engineering
 Amy Fleischer; Dept of Mechanical Engineering
 Calvin Li, Dept of Mechanical Engineering
 Gerard Jones, Dept of Mechanical Engineering, Sr. Associate Dean Grad. Studies and Research
 Jens Karlsson, Dept of Mechanical Engineering
 Qianhong Wu, Dept of Mechanical Engineering

William Lorenz, Dept of Sustainable Engineering

Ruth McDermott-Levy, Nursing School

Joseph Dellapenna, Law School
 Ruth Gordon, Law School

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

Emails were sent out to department leaders to identify those who had done sustainable research.

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

Samantha Chapman (Biology) conducts research at the intersection of ecosystem processes (including biotic influences on carbon and nutrient cycling) and sustainable practices. Her research is directed to inform ecosystem management and stakeholders. Ongoing projects in these areas include (1) mangrove community dynamics, plant-soil feedbacks, and shifting ranges; (2) carbon storage in Christmas tree farms; (3) interactions of native and non-native plant diversity with nitrogen availability associated with non-native plant invasion; and (4) microbial degradation of oil.

http://www99.homepage.villanova.edu/samantha.chapman/chapman_ecosystem_ecology_lab/Home.html

Justinus Satrio (Chemical Engineering) just established the Biomass Resources & Conversion Technologies (BRCT) center, an education, research and development program in the College of Engineering at Villanova. Research focuses on utilizing biorenewable materials to produce energy, liquid fuels and chemical products, that typically are still primarily derived from non-renewable carbon resources. These include (1) improvement of biomass qualities and biorefinery feedstocks; (2) energy densification of biomass by liquefaction; (3) utilization of liquefied biomass (BCO); (4) assessments of sustainability and techno-economics of biomass utilization systems.

<http://www3.villanova.edu/biomass/>

Robert Traver (Civil and Environmental Engineering) serves as Director of both the Center for the Advancement of Sustainability in Engineering, and the Villanova Urban Stormwater Partnership. He conducts research on topics that include modeling of stream hydraulics, urban hydrology, water quality, and sustainable stormwater management. He initiated the Stormwater Best Management Practice Demonstration and Research Park on the Villanova Campus. In 2014, he presented a report calling for national strategy for resiliency in urban areas, “Flood Risk Management – Call for a National Strategy”. He also received the 2014 William H. Wisely American Civil Engineer Award.

Kelman Wieder and Melanie Vile (Biology) conduct research in biogeochemistry and ecosystem ecology. Current research focuses on carbon cycling in boreal Sphagnum-dominated peatlands, especially with respect to ongoing climate change. As the earth's climate changes, in part driven by anthropogenic factors, it is unknown whether peatlands globally will continue to represent a net sink for atmospheric CO₂, or whether they will shift and begin releasing stored C back to the atmosphere. Using a combination of field and laboratory, descriptive and experimental, studies, their research group strives to quantify pools of carbon in peat, carbon fluxes within peat and between peat and the atmosphere, and the biotic and abiotic controls on those fluxes.

<http://www13.homepage.villanova.edu/kelman.wieder/index.html>

Professor Jonathan Doh from the Villanova School of Business has been elected at Professional Development Chair (2013), Program Chair (2014), Division Chair-elect (2015), and Division Chair (2016) for the Academy of Management Organization and Natural Environment (ONE) Division.

Paul Rosier in the History Department at Villanova recently published an article on the American Indians' attitudes to environmental crisis and how it led to considerations for alternative energy in the 1970s.

Professor Jared Paul in the Department of Chemistry collaborated with a laboratory at University of Alabama to create a paper on water oxidization and prospects for using water as a fuel source. This paper was featured on the cover of the Inorganic Chemistry journal in August 2013.

Professor Bridget Wadzuk in the Department of Civil and Environmental Engineering participated in an environmental forum to discuss community resilience to climate impacts at the White House in October 2014. She was also awarded a \$800,000 National Science Foundation grant for stormwater systems research.

Professor Amy Fleischer in the Department of Mechanical Engineering was elected to the Science Council of the International Centre for Heat and Mass Transfer. She is conducting research with Professor Alfonso Ortega of the Department of Mechanical Engineering on recovering waste heat from data centers to be converted to electricity. Their research was cited by CNN and WHYY.

The website URL where information about sustainability research is available:

<http://www1.villanova.edu/villanova/sustainability/AcademicsandResearchSustainability/ResearchPublicationsSustainability.html>

Responsible Party

Natalie Walker

Student

Engineering

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:

There are many opportunities for student research in sustainability. The four primary routes are through (1) courses (notably independent projects in Environmental Science II (GEV 1051), and ACS sections associated with the Environmental Learning Community); (2) projects with individual faculty (see above); (3) the Student Subcommittee of the President's Environmental Sustainability Committee; and (4) the Villanova Center for the Advancement of Sustainability in Engineering. Most departments offer opportunities for both official senior thesis projects and directed/independent research, so there is both financial and academic support for this research. In addition, the Villanova Undergraduate Research Fellows Program (VURF) is designed to provide financial support for student research in the form of stipends and supplies, travel, and conference support. Although not specifically designed for students performing sustainability research, several students who do so have received support.

Additionally Villanova has been awarded various grants for sustainability related research. Such grants are listed below.

- 1)William Penn Foundation awards \$565,000 Grant to Villanova Urban Stormwater Partnership for research
- 2)EPA granted \$1M to Villanova Urban Stormwater Partnership for research
- 3)Villanova has received a grant from Pennsylvania's Growing Greener Program 4)National Science Foundation award a \$800,000 grant

for stormwater systems research.

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

http://www1.villanova.edu/villanova/artsci/undergrad/curf/undergrad_research/fellows.html

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:

There are many opportunities to encourage faculty research in sustainability. The College of Engineering provides seed grants to promote collaborative research groups annually among faculty members of different research areas and sometimes from different colleges within VU as well as outside universities. Preference is given to interdisciplinary research work and groups that involve undergraduates in their research.

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

http://www3.villanova.edu/emb/current_projects.html

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:

Interdisciplinary Team-Teaching Summer Award is put on by the Villanova Honors Program to encourage development of new interdisciplinary team-taught courses. Development happens over the summer to be taught the following spring semester. There is a financial reward for the winning team.

Last years winners were focused on Interdisciplinary Project-Based Learning Experiences as it relates to international development and sustainability.

<http://www1.villanova.edu/villanova/president/speeches/officeofthepresident-may2013.html#mainco>

[tent_newsentry_1](#)

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

http://www1.villanova.edu/content/villanova/honors/faculty/_jcr_content/pagecontent/download_1/file.res/Interdisciplinary%20Team%20Teaching%20Summer%20Award.pdf

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:

Villanova's Sustainable Engineering Master's program has developed a variety of e-learning modules. Current modules include topics on human impact on earth, whole systems thinking through a life cycle lens, the STEEP (social, technological, environmental, economic, and political) model, sustainable materials and design, sustainable supply chain, and moving toward the sustainable enterprise. Additional e-learning modules are in development for specific courses. Course E-learning modules to be available in Fall 2014 include 7110 Fundamentals of Sustainable Engineering, 7112 Economic and Social Aspects of Sustainability, and 7113 Sustainable Materials and Design. E-Learning modules may also be used for workshops conducted outside of these specific courses.

Villanova's library does support studies in sustainability through collection, development, and research consultation with subject librarians. The librarians listed below are the primary contacts for assistance with research concerning sustainability.

1. Alfred Fry, Engineering

http://library.villanova.edu/research/subject-guides/engineering/civil_and_environmental_engineering/

2. Merrill Stein, Geography

<http://library.villanova.edu/research/subject-guides/geography-and-the-environment/>

3. Jutta Seibert, History

<http://library.villanova.edu/research/subject-guides/history/>

Additionally instructors are able to create course guides supplements through library services. Examples of course guides created for specific classes are available at the following web addresses.

<http://library.villanova.edu/research/course-guides/growing-sustainability/>

<http://library.villanova.edu/research/course-guides/pro-seminar-sustainability-studies/>
STARS Reporting Tool | AASHE

Over 1,200 books available either physically or electronically through Villanova's library as well as over 11,000 academic articles.

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

<http://library.villanova.edu/research/course-guides/growing-sustainability/>

Responsible Party

Natalie Walker

Student
Engineering

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.

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

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

64

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

0

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

At this time Villanova does not have any participating members of an open access policy

A copy of the open access policy:

The open access policy:

The website URL where the open access repository is available:

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

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

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

Liesel Schwarz
Sustainability Manager
Facilities

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:

10,293

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

Presidents Environmental Sustainability Committee, Student Working Group

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

6,837

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

Presidents Environmental Sustainability Committee (PESC), Student working group is focused on engaging the Villanova students population regarding campus sustainability efforts. Students work to draw attention to campus, local, national, and global sustainability issues via projects such as: designing boards for residential assistants on sustainability topics; developing and conducting campus sustainability tours; coordinating a Earth Day service trip; developing a bike share program targeted at students who live off campus; coordinating Mt. Trashmore; initiating the Kill the Cup Campaign and starting a Villanova Sustainability Facebook page. Members of PESC Student working group also lead other campus sustainability clubs such as Citizens Climate Lobby, Just Food, Community Garden, and Villanova Environmental Group.

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

Students apply to serve on the working group and existing working group members select new members from among the applicants with support from faculty and staff. The application process starts in the middle of the Spring semester.

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

Before the fall semester starts, Students in the program are required to attend a three day training, unless the student is required to report to other training such as RA, Orientation or sports. One day of training is spent on team building, leadership training, and updates on coming years activities. Day two is spent working the orientation caravel, helping to share information on campus sustainability efforts with incoming freshman. Day three is an educational trip off campus to learn about sustainability efforts in the surrounding area.

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

Steven Goldsmith, a faculty member at Villanova, volunteers as the Student working group faculty adviser; several other faculty members of PESC provide support as-needed. The sustainability manager provides financial support when needed.

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

Athletic EcoReps

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

1,300

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

Athletic EcoReps work with their respective teams to make athletics more sustainable. To do this the students come up with new programming and marketing ideas to spread the word and encourage action. Programs include supporting the instillation of two new hydration stations in athletic facilities to encourage the use of reusable water bottles; a dozen new recycling bins have been installed in athletic locker rooms along with new signage to encourage more recycling; shoe recycling program for the entire campus; and Villanova's first zero waste game. Future projects include plastic bag recycling.

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

Students involved in varsity or club sports are eligible to apply to be an Athletic EcoRep. Applications are available in spring semester. The sustainability manger, who advises the EcoReps, chooses from the list of applicants.

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

Athletic EcoReps do not have training as of right now.

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

Funding for Athletic EcoRep programs is pulled from three main areas: the sustainability office, Recycling and Athletics. It is provided on a per need basis.

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

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

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

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

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

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

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:

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

http://www1.villanova.edu/villanova/sustainability/about/Committees.html#question_faq_3

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Our Recycling Coordination and Sustainability Manager speak to the orientation coordinators before the freshman arrive. The speech is motivational in nature, in an effort to get the coordinators revved up about recycling and campus sustainability efforts. Each orientation coordinator is assigned to a group of incoming freshman and guide them around for the first week of orientation.

During orientation, Villanova hosts a "carnival" for the new students that includes multiple University departments. Sustainability has three main activities for the carnival, including:

A recycling game organized by the recycling coordinator. The game pits two students against each other to see who can put the most "trash" in the right bin the fastest. This helps to teach the students the recycling program on campus and clarifies what waste items go in which container.

Additionally, during the carnival students have the opportunity to tie dye organic cotton shirts with the Villanova sustainability logo. Information on sponsoring centers within the University are available at the end of the tie dye line.

Lastly, a castle of recycled cardboard boxes from move-in is made by members of the PESCS Student committee. Not only is a castle a great show piece, but it is also educational, showing the students how much trash they generate.

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

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

"---" 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	No
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	No
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	No

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

Student Subcommittee, President's Environmental Sustainability Committee- This group is charged with overseeing student efforts associated with sustainability and the goals of the Presidents' Climate Commitment. (

<http://www.villanova.edu/sustainability/organizations.htm>

)

Villanova Environmental Group- A group of student activists who participate in projects on campus, locally, and globally. VEG presents an open forum for anyone who has questions, concerns, and ideas regarding the constant changes in the environment (

<http://www.students.villanova.edu/veg/>

)

Villanova Ecological Society- Founded in 1994 by a group of biology undergraduates; focuses on ecology and environmental science. Activities include: (1) meetings to share information about ecological issues and environmental action; (2) field trips to regional sites for natural history observation, environmental education, service, and recreation; and (3) sponsorship of invited speakers and other events with ecological and environmental themes. (

<http://www.students.villanova.edu/esv/activities.htm>

)

Engineers for a Sustainable World- Formed in 2008; conducts Home Energy Audits as an outreach service project for the local Villanova community, partners with a Bio-diesel production facility that processes used cooking oil for use as fuel on Villanova's campus (

<http://www.villanova.edu/sustainability/organizations.htm>

)

Business Without Borders- Formed in 2008 within the Villanova School of Business; affiliated with Net Impact Undergrad, a higher-education program that seeks to encourage undergraduates around themes of corporate social responsibility, social entrepreneurship, green business, and other topics related to the ways in which business can be used to make a positive impact on the world. The mission of the Villanova group is to equip, educate, and inspire Villanova School of Business students to use their business skills for lasting social and environmental good. To fulfill this mission, Business without Borders Net Impact Undergrad Chapter 1) empowers undergraduate students to use their skills to positively impact their surroundings, 2) helps them put their beliefs into action through sustainability efforts, and 3) enlarges their network with other like-minded individuals who have demonstrated their commitment to social corporate responsibility. (

<http://www.villanova.edu/business/undergrad/societies.htm>

)

Engineers Without Borders- Gives students an opportunity to provide technical engineering assistance on various development projects. This organization is entirely managed by student volunteers and partners with local and international organizations to assist with the

delivery of sustainable infrastructure projects and livelihood development programs. (

<http://www.students.villanova.edu/egrorgs/EWB/>

)

Environmental and Energy Law Society, Villanova Law School - Dedicated to exploring the effects and prospects of law relating to the environment and energy. The group is primarily concerned with US energy policies and the environmental consequences they produce.

In addition, the Student Government Association (SGA) at Villanova established a sustainability subcommittee designed to promote sustainable practices on campus in Fall 2010.

The website URL where information about student groups is available:

<http://www1.villanova.edu/villanova/sustainability/GetInvolvedSustainability/StudentGroupsSustainability.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:

Villanova students are interested in starting an organic garden, but due to the land-locked nature of the campus they are not able to farm on campus. As a result the Villanova Community Garden student group takes trips to different gardens around Philadelphia to learn about gardening and help with the farming. There are about 50 students in the group.

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

<http://www1.villanova.edu/villanova/artsci/peaceandjustice/studentorgs/community.html>

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

There are no student-run enterprises on campus, but there is a student managed funds group on campus that invests money in socially responsible mutual funds with positive screens. Over the past 3 years, total money held in these funds were as follows: FY10 = \$424,457, FY11 = \$470,632, and FY12 = \$434,643.

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

<http://www.students.villanova.edu/smf/index.html>

A brief description of the sustainable investment or finance initiatives:

Villanova has a sustainable investment fund, but it is not yet organized in a way for students to take part in the project funding process. The fund is housed in facilities and is used on projects that can prove their energy efficiency.

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

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/EnergySavingsProjectFundSustainability.html>

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

Every year we hold an Earth Day celebration that many times includes an in-house presentation and guest speaker, as well as a poster session where students are able to showcase their sustainability projects done throughout the year. The celebration also includes a farmers market. Speakers have included: panel discussions on hydraulic fracturing and sustainable agriculture, and keynote addresses from Katherine Gajewski, Director of Sustainability, City of Philadelphia and Dean Carlson from Wyebrook Farms. In addition to the farmers market and poster session, students participated in an Earth Day service trip to a local farm to help with prepping the farm for planting.

In addition to Earth Day, we participated in Campus Sustainability Day for the second time last year. Activities included Mt. Trashmore (see next section), and the sustainable careers panel (VU alumni that have developed a sustainable career).

The panel on the intersection of Faith and Environment was held in the Fall 2014. Panelist discussed the connection between sustainability and Catholicism.

Richard Alley, the Evan Pugh Professor of Geosciences at Penn State University, spoke on campus twice during the Fall 2014 semester.

Lastly, many of our professors offer courses throughout the year that focus on different sustainability issues and invite guest presenters to come to campus as part of the class. When possible we open those presentations up to the entire Villanova community. In the Fall 2013 we had a series of speakers on sustainable business practices. For the 2014 Spring semester we had a series of guest lectures on sustainable practices happening locally.

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

<http://www1.villanova.edu/villanova/sustainability/GetInvolvedSustainability/EventsSustainability.html>

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

For Campus Sustainability Day (Fall 2014) students collected trash from the two main dining halls on main campus and piled them on the center of campus. The installation was up for one day, and meant to raise awareness among students of their waste production.

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

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

Villanova's Outdoors Club hosts regular hiking, white water rafting, and skiing outings. The group is conscious of protecting the environment they are in and follow Leave No Trace principles.

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

<http://vugroups.collegiatelink.net/organization/villanovaoutdoorsclub>

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

In the 2008-2009 calendar year, Villanova celebrated the "Year of Sustainability". Through curricular development, along with research and service initiatives, the year highlighted our crucial and shared responsibility to care for the environment. The year was led by an interdisciplinary executive committee of faculty members in collaboration with the President's Environmental Sustainability Committee, and culminated in the International Sustainability Conference featuring Robert F. Kennedy, Jr.

The website URL where information about the theme is available:

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

Incoming freshman can register to live in the Environmental Leadership Learning Community. Through this learning community, students:

- Take a specially-designed section of the humanities seminar Augustine and Culture (ACS) with other students in their Experience community, focusing holistically on the question of "Who Am I?" in relation to the natural environment and human culture
- Participate in a one-credit workshop style class that meets weekly in the residence hall, called Villanova Experience (VEXP), which will explore:
 - Effective ways to communicate about a variety of issues relevant to the first-year college experience
 - Current issues, practices, and innovations that impact the natural world
 - Ways in which both local and larger communities can care for the natural world
 - Opportunities to work in small groups
- Students in the community live together in Katharine Hall on the south campus
- Enjoy an enriched academic and co-curricular experience because of student and faculty interactions in and out of the classroom, creating a stronger community for first-year students. Activities outside of the classroom include "movie and pizza" nights, on-campus lectures and special events, and off-campus field trips to locations such as organic urban farms, eco-housing developments, and manufacturers of eco-friendly products.

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

<http://www1.villanova.edu/villanova/studentlife/learningcommunities/residents/environmental.htm>

1

A brief description of sustainability-focused student employment opportunities:

Dining Services has two paid student workers who focus on improving dining sustainability efforts. Facilities hires one-two students a year to assist with office needs, about 50% of one workers time is spent on sustainability efforts.

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

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

This is something we are looking to incorporate into the 2015 commencement.

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

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

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

Outreach Materials and Publications

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

"---" 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	No
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	No
Other sustainability publications or outreach materials not covered above	---

A brief description of the central sustainability website:

The Villanova sustainability website was updated in the fall of 2013 to better provide accurate, easy to find information for both the campus community and those outside the University. The new homepage has rotating information that is updated regularly. The rest of the site is split into four main areas: About Us, Academics and Research, Campus, and Get Involved. This organization allows us to include more information than before, and makes it easier for people to find what they are looking for. Information on the website is regularly updated by the sustainability manager.

The website URL for the central sustainability website:

<http://www1.villanova.edu/villanova/sustainability.html>

A brief description of the sustainability newsletter:

Villanova has a monthly newsletter that is posted on our website, sent out in the campus wide daily email, and people can sign up to have the newsletter sent to them directly. The newsletter includes new sustainability initiatives on campus, events, opportunities such as internships or conferences, and anything in the news about Villanova's sustainability efforts.

The website URL for the sustainability newsletter:

<http://www1.villanova.edu/villanova/sustainability/GetInvolvedSustainability/StayInformedSustainability.html>

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

The Facebook page "Sustainability at Villanova" was created to help better advertise events, as well as provide timely information on sustainability initiatives on campus and around the world. Currently we have 470 likes.

There is also the VU Sustainability twitter and instagram page. All social media pages are managed by students in the Presidents Environmental Sustainability Committee.

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

<https://www.facebook.com/VUSustainability?ref=hl>

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

We do not have a formal outlet for disseminating student research on sustainability, but we do share this information through existing communication vehicles. Information about student research on sustainability has been publicized in the student newspaper, the Villanovian, and on the sustainability website (see link below). Also, during our annual Earth Day celebration students have the opportunity to share their class sustainability projects through a poster session. Though none of these methods of communication are "official" they have worked well in getting the word out.

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

<http://www1.villanova.edu/villanova/sustainability/students.html>

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

A few of our LEED buildings have a touch screen in the main entrance area with information on the building's green features, currently three of our 5 LEED buildings have such a tool. The screens contain sustainable design information as well as energy data.

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

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

Apart from Dining Services extensive web based information on their sustainability efforts, they also clearly label all sustainable food items on the menu every day, including vegan and vegetarian. There is also information on composing, Meatless Mondays, and fair trade. In addition to labeling at each food station, there are also TV monitors in the dining halls with rotating information on sustainable dining initiatives.

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

<http://www1.villanova.edu/villanova/services/dining/sustainability.html>

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

Though we do employ an integrated pest management program we do not advertise it to the campus community.

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

A brief description of the sustainability walking map or tour:

This is something we hope to accomplish within the next year. The app will include a sustainable design features, green infrastructure, bike racks, and more. We are also looking to add a sustainability element into the prospective student tour.

The website URL of the sustainability walking map or tour:

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

Linked from the sustainability website, Public Safety has a page dedicated to transportation options for students, (and is also applicable to staff and faculty). The page includes information on how to use the public transit system in the area, SEPTA. There is another page dedicated to the University provided campus Shuttle that runs on and off campus.

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

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/TransportationSustainability.html>

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

The sustainability website has a page dedicated to alternative transportation options, and includes bike rack campus maps and local biking trails map.

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

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/TransportationSustainability.html>

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

The new sustainability website has a whole page dedicated to sustainable living, directed towards students. The site includes general information on how to live sustainability in the dorms including energy efficiency, recycling and ways to get involved on campus.

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

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/HousingSustainability.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:

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:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

material):

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

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

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

Liesel Schwarz
Sustainability Manager
Facilities

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
-

"---" 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?:

No

The name of the campaign (1st campaign):

Recyclemania

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

Villanova University has competed in Recyclemania since 2004. Our recycling coordinator organizes the pick up and measuring of recycling and trash throughout the campus and reports the results to Recyclemania. Over the years we have tried to get the students more involved through state-wide competitions and inter-campus competitions.

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

Over the years our recycling rates have fluctuated. In 2014 we saw a decrease in our recycling rates. Although this is not an improvement, which show that we need to re-focus more of our efforts on Recyclemania advertisement and engagement.

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

<http://recyclemaniacs.org/scoreboard/past-results>

The name of the campaign (2nd campaign):

Kill The Cup

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

In 2014, Villanova participated in the Kill the Cup campaign with the focus of reducing disposable cup use through social media. Students were able to raise awareness of the issue by using photos and social media.

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

We saw a measurable increase in awareness on campus, and had measured increase in reusable cup use throughout the competition. Villanova placed 4th in the competition for social awareness.

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

<http://www.killthecup.com/>

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

Employee Educators Program

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Total employee numbers are based on 2012-2013 year including part-time employees

"---" 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:

2,731

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

Recycling Advocates

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

1,613

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

STARS Reporting Tool | AASHE

The Recycling Advocates are university community members who represent their department and building in helping to promote and improve recycling on campus. Advocates work with the recycling coordinator on many different projects throughout the year to address recycling issues, including identifying new recycling bin locations and improved awareness through word of mouth and signage.

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

Training is offered to Recycling advocates twice a year, once in the summer and once in the early fall semester. Advocates are encouraged to attend one of the two training a year. Training includes updates and overview of the campus recycling program, as well as new program for advocates and an opportunity to suggest ideas.

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

The Villanova Recycling Coordinator provides organizational and financial support for the advocates.

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

http://www1.villanova.edu/villanova/sustainability/about/Committees.html#question_faq_6

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

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

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

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

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

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

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

Number of employees served by all other programs:

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

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

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

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

Employee Orientation

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

100

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

Everyone who is hired, staff or faculty, has to go through new hire orientation. The sustainability manager attends the monthly new hire staff training sessions to present on the University's sustainability efforts. In addition to the presentation, all new hires are given handouts with additional information on Villanova's sustainability program and how they can get involved.

Faculty orientation happens before the start of the new academic year. The sustainability manager attends the training to provide a brief presentation and educational handouts on where to find information and how to get involved.

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

Staff Professional Development

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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 :

Once a year the Sustainability Manager provides an information session on campus sustainability updates to staff and faculty. The presentation time, location and advertisement is organized by Human Resources as part of their staff/faculty training opportunities. The presentation focuses on changes and additions to Villanova's sustainability efforts include the following focus areas: facilities, waste management, dining services, transportation, and academic opportunities. Attendees are also informed on how they can get involved in future campus sustainability efforts.

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

2

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

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

Liesel Schwarz
 Sustainability Manager
 Facilities

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*.

"---" 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:

Each year, Villanova organizes the St. Thomas Day of Service where nearly 4,500 campus members conduct volunteer work in and around Philadelphia. 2014 was the 9th year Villanova has conducted a Day of Service. Volunteer sites typically involved painting, cleaning up, gardening or helping children and the elderly. Each year we work with hundreds of community organizations and non-profits to make this event possible. In 2014, we also used our volunteer sites for a second consecutive year in the Green Apple Day of Service, an event organized by USGBC to encourage more attention to school sustainability opportunities. Over 60 St. Thomas Day of Service sites qualified for the Green Apple Day of Service, because they helped area schools' green their facilities. Project site examples include: building a rain garden, weeding and planting vegetable gardens, and painting (using low VOC paint).

<http://www1.villanova.edu/villanova/president/initiatives/stvcelebration/service.html>

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):

Villanova ethics professor, Mark Doorley, is actively involved in advising a non-profit called "The Center for Environmental Transformation" in Camden, NJ as a member of the Center's Board of Trustees since 2007. Additionally, Villanova students visit the site annually for our Day of Service in the fall, as well as participate in a missions trip over fall break. The Center works to educate the neighborhoods in Camden of more environmentally responsible ways of living on our planet, including: sustainable modes of food production, stormwater management, and waste recycling.

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

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 Villanova Community Garden student group organizes and advocates the creation of sustainable, locally-sourced, and healthy dining options on campus as well as participates in community gardening efforts in the area. They volunteer at local and urban community gardens, promote campus awareness of food sustainability, and support environmental justice efforts to increase food access. They also enjoy good food together through community dinners. The group aims to increase campus awareness of where our food comes from and how it affects both our own health and the health of the environment.

As part of the St. Thomas Day of Service, Villanova MBA students and members of the Villanova Community Garden student group volunteered with Philadelphia Urban Creators in North Philadelphia. The students helped to establish urban garden locations with flower beds and main garden wall painting. They were also involved with fall crop preparation and the construction of a new building for hydroponics. The organization uses these facilities to help educate, energize, empower and unite the neighborhood. The gardens also help to address the “urban desert,” providing a source of local, healthy food for the community.

The partnerships forged through the Day of Service are re-visited each year,

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

The Water for Waslala organization was founded by nine Villanova students in 2002 after learning about Waslala's need for access to cleaning drinking water. Since then, multiple trips and thousands of dollars have been raised by Villanova students to help provide cleaning drinking water to the villages of Waslala. Currently 4 Villanova grads sit on the organizations Board of Directors. In 2014, Villanova students raised \$23,000 for the Water for Waslala project.

"Water for Waslala is dedicated to providing the funds and technical expertise needed to construct cost-effective, sustainable potable water projects in Waslala, Nicaragua that improve public health, increase educational attainment, and facilitate economic development."

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

The website URL where information about sustainability partnerships is available:

<http://www1.villanova.edu/villanova/engineering/newsevents/newsarchives/2013/STVU2013.html>

Inter-Campus Collaboration

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Presentation at ERAPPA 2012 on Transforming the Campus Landscape a three year long project to improve the campus walk-ability. Areas addressed in the presentation include: vehicle free campus core, storm water management, steam lines under pavers to reduce use of deicing chemicals, etc.

One of Villanova's faculty members is a well published researcher in stormwater management and gives talks and tours throughout the year. Recent talks and tours have been given to the following organizations: Environment and Water Resource Institute, Low Impact Development Symposium, EPA 219 Non-Point Source Workshop, Greenbuild, Butler University, Yale, Philadelphia Community College, Pennsylvania Environmental Council, PSU and American Sign Language Association. In 2013, Villanova held a Storm water Symposium with over 300 in attendance.

Villanova is a member of the PA Collegiate Green Sports Consortium, a group of PA colleges and universities who are building an Athletic EcoRep programs on their campus. The group meets at least twice a year to discuss progress and challenges in program development. Students are encouraged to attend the meetings. There is no membership fee and other PA institutions are encouraged to join.

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:

Member of Professional Recyclers of Pennsylvania, Chair of the PA CURC
Delaware Valley APPA Chapter
Eastern Region APPA Chapter

Society for College and University Planning SCUP
PAIUG
National Council for Science and the Environment
Council of Environmental Deans and Directors
Association for the Advancement of Sustainability in Higher Education
US Green Building Council
Pennsylvania Environmental Resource Consortium
Low Impact Development- Mid-Atlantic Research Consortium
Pennsylvania Collegiate Green Sports Consortium

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

Villanova is a member of the PA Collegiate Green Sports Consortium, a group of PA colleges and universities who are building an Athletic EcoRep programs on their campus. The group meets at least twice a year to discuss progress and challenges in program development. Students are encouraged to attend the meetings. There is no membership fee and other PA institutions are encouraged to join.

Research with Temple Villanova Sustainable Stormwater Initiative (TVSSI)

<http://www.csc.temple.edu/t-vssi/>

TVSSI works to identify local Stormwater Management successes to include in their regional database to help raise visibility. A couple times a year our facilities department hosts members of neighboring or peer institution's facilities members to discuss our operations, including sustainability. This is also an opportunity for us to learn from them. Recently we have hosted Butler University, St. Joseph University, and the University of Delaware.

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

Continuing Education

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

2

Total number of continuing education courses offered:

19

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:

Sustainability Facility Professional (SFP)

Curriculum

The program consists of three focus areas designed to help facilities management professionals integrate sustainability efforts with the organization's values and strategies, present a business case for a sustainability initiative, evaluate initiatives from a financial point of view and track and report accomplishments.

Focus Area 1: Strategy and Alignment for Sustainable Facility Management - This section summarizes key concepts related to sustainable facility management from the organizational level and illustrates linkages and actions facility managers must take into consideration in order to make the business case for sustainability in their own facilities.

Focus Area 2: Managing Sustainable Facilities - This section looks in depth at the process of aligning a facility's sustainability plan with an organization's vision, strategic goals and policies. It takes the same strategies promoted in an SFP's business case for sustainability within the organization, and provides the details behind the plans to prepare for, lead and implement those changes.

Focus Area 3: Operating Sustainable Facilities – This section looks at ways in which SFP's can operate their facilities in a more sustainable manner through changes in building equipment and technology as well as changes in operations and maintenance procedures. Focus area 3 is organized around the eight major categories of sustainable facility management—energy, water, materials and resources, workplace management, indoor environmental quality, quality of services, waste and site impact—from inputs, through facility processes, to outputs.

Project Management

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 International Facility Management Association Sustainability Facility Professional (SFP) credential program will provide you with the tools to assist you and enhance your sustainability knowledge and earn the SFP credential in one complete program. Courses are led by experienced, certified instructors who are leaders and teachers in the field of sustainability and are committed to this goal.

This comprehensive program combines printed and/or electronic reading materials with interactive online study tools and online SFP final assessments. Study materials include:

Printed course materials: Three printed/electronic courses teach the SFP topics in an easy-to-understand format.

Online study tools: Interactive online study tools including quizzes, case studies, e-Flashcards, progress reports and more will help you apply and retain the SFP concepts.

Final SFP assessments: Successfully complete each course's final assessment and submit your application to IFMA to be awarded your SFP credential.

Year the certificate program was created:

2,011

The website URL where information about sustainability in continuing education courses is available :

<http://www1.villanova.edu/villanova/continuingstudies/noncreditprog/sustaincred.html>

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Student population is for undergraduates and graduates both full and part time. Community service numbers are based on a 2010 survey. Number of students participating in community service includes duplicate student involvement for those students who participated in more than one community service activity. Community service hours include hours contributed by faculty and staff. Unfortunately the survey does not separate out student and employee hours.

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

Number of students engaged in community service:

9,749

Total number of students :

10,544

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:

170,464

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:

The Division of Student Life, in partnership with CollegiateLink, introduced VU Groups, an online portal to track undergraduate student involvement and attendance. At the conclusion of their time at Villanova, students may print a co-curricular transcript capturing their extracurricular and co-curricular involvement on campus, including involvement in community service. However, this is not an official part of their University transcript and the data are not verified.

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:

At Villanova, service to others is part of our very identity as an institution. As a University founded and guided by the Order of St. Augustine, we are committed to pursuing the Augustinian ideals of veritas, unitas, caritas – truth, unity, love. These ideals are not pursued independently, but rather are brought together inside and outside of the classroom to create a truly transformational educational experience for our students.

The University's patron, St. Thomas of Villanova, committed his life to serving the poor and each fall we dedicate a Day of Service in his name. The St. Thomas of Villanova Day of service started as part of my inauguration as president of Villanova in 2006. It attracted roughly 1,000 students, faculty and staff who worked at 35 sites throughout Greater Philadelphia. That one day has grown into an annual event that engages upwards of 4,500 members of our community working in partnership with 150 sites throughout Greater Philadelphia. The success of this event isn't measured in the hours served or volunteers engaged, but in the relationships made and the lives transformed. For many of our freshmen students, it is their first opportunity to see Villanova's mission and ideals put into action – and inspires them to continue seeking similar opportunities.

The purpose of the Above and Beyond Award (V+) is to recognize individuals and groups who go above and beyond the routine call of duty. This award differs from the Distinguished Service and Work Process Improvement Award in that it commends individual events, activities and projects. The recipients of this award will have performed a significant action or service that: Surpasses the requirements of their job description; Is voluntary; Is unexpectant of compensation in time off or payment; and Is either within or outside of their scheduled work hours. For example, the nurses of the Student Health Center were the first recipients of this award. They were recognized for working extra hours, bringing in homemade food, doing extra laundry, etc. in support of the students during a flu epidemic on campus.

Employee participation in community service totals over 1,000 faculty and staff per the 2014 Community Service Project Inventory.

The website URL where information about the institution's community service initiatives is available:

<http://www1.villanova.edu/villanova/mission/heritage/mission.html>

Community Stakeholder Engagement

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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?:

Yes

A brief description of the policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution's activities:

In an effort to engage the community on a regular basis, an email is sent out periodically through the University President's Office outlining upcoming events the community is invited to, large campus events that may affect traffic, recent news about the University, and useful links.

Villanova also has a number of programs and events the community is invited to enjoy, including, access to the campus fitness and recreation facilities, theater productions, the One Book Villanova program, discounted tickets to athletics events, and the annual St. Thomas of Villanova Day of Service.

Villanova representatives participate in and sponsor community events and the University conducts town hall-style meetings to discuss initiatives that could be of interest or concern to neighbors, such as capital projects.

A brief description of how the institution identifies and engages community stakeholders, including any vulnerable or underrepresented groups:

Villanova's mission is rooted in the Augustinian ideals of truth, unity and love. Service to others is an important component of the Villanova educational experience and is woven into activities both inside and outside of the classroom. Each year, members of the Villanova community provide almost 220,000 hours of community service locally, regionally and globally.

- Best Buddies, students form a one-on-one relationship with adults living with intellectual disabilities.
- College Weekend, gives underrepresented student exposure to the college experience, including SAT prep class, essay writing class, financial aid and administration presentations and cultural programs.
- Community Outreach of Villanova (COV), provides weekly trips to organizations around Philadelphia in need, including soup kitchens, nursing homes and after school programs.

List of identified community stakeholders:

A full list of community partners can be found by reading the 2010 report on Community Service and Civic Engagement at this link:

<http://www3.villanova.edu/mission/CommunityEngagement.pdf>

Example of partnering organizations include:

- St. Elizabeth's Parish/Project H.O.M.E., 184 North 23rd St., Philadelphia, PA
- St. Martin dePorres Center, 2340 W. Lehigh Avenue, Philadelphia, PA
- Southwest Community Enrichment Center, 1341 S 46th St., Philadelphia, PA
- Don Guanella Schools
- Overbrook School for the Blind in Philadelphia
- Philadelphia Department of Recreation
- Habitat for Humanity
- North Light Community Center
- Blind Sports Organization (BSO)
- Share Food Program in Philadelphia
- Special Olympics of Pennsylvania
- A Baby's Breath

A brief description of successful community stakeholder engagement outcomes from the previous three years:

2014 marked the ninth annual St. Thomas of Villanova Day of Service. The event has grown from just over 1,000 volunteers working at 30 sites in its first year to now engaging more than 4,000 volunteers working at up to 150 sites throughout the Greater Philadelphia Region. It is now one of the largest single day service events in the region. Many partnering organizations have turned into long-term relationships with work taking place throughout the year. Through this and other service events we are not only able to help those in need, but we teach our students the importance of helping others, and they carry that philosophy throughout their four years at Villanova and

beyond.

The website URL where information about the institution's community stakeholder engagement framework and activities is available:

Participation in Public Policy

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

As Villanova is a Catholic institution we do not make any political statements regarding current affairs. We work to encourage sustainability, both on and off campus, with our actions.

"---" 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?:

No

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:

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:

[STARS Reporting Tool | AASHE](#)

Trademark Licensing

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

Criteria

Institution is a member of the Fair Labor Association (FLA) and/or the Worker Rights Consortium (WRC).

Submission Note:

Worker Rights Consortium

<http://www.workersrights.org/about/as.asp>

"---" 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? :

The website URL where information about the institution's participation in the WRC, FLA, and/or DSP is available:

<http://www.fairlabor.org/affiliates/colleges-universities?page=16>

Hospital Network

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.

This credit was marked as **Not Applicable** for the following reason:

The institution does not have an affiliated hospital or health system.

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

Liesel Schwarz
Sustainability Manager
Facilities

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 (MtCO_{2e}) per gross square foot (0.002 MtCO_{2e} 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:

The 2014 winter was especially cold for the northeast, and as a result we had to switch our steam plant from natural gas powered to fuel oil #6. This caused our scope 1 emissions to rise. We expect similar problems for the 2015 winter. The University is looking into options

to change our back up fuel from #6 to #2, a cleaner burning fuel.

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

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	No
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	No

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:

Our electricity supplier provides us with a yearly review of our electric usage. For scope one emissions we are able to gather that data internally through responsible departments that manage those operations, such as the steam plant, grounds, recycling, procurement (automobile fuel), etc. Data is entered into the clean air cool planet calculator.

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:

Scope 1 and Scope 2 GHG emissions::

	Performance Year	Baseline Year
Scope 1 GHG emissions from stationary combustion	15,661 <i>Metric Tons of CO2 Equivalent</i>	18,717 <i>Metric Tons of CO2 Equivalent</i>
Scope 1 GHG emissions from other sources	1,265 <i>Metric Tons of CO2 Equivalent</i>	873 <i>Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from purchased electricity	30,536 <i>Metric Tons of CO2 Equivalent</i>	33,087 <i>Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from other sources	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

Figures needed to determine total carbon offsets::

	Performance Year	Baseline Year
Institution-catalyzed carbon offsets generated	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Carbon sequestration due to land that the institution manages specifically for sequestration	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Carbon storage from on-site composting	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Third-party verified carbon offsets purchased	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

A brief description of the institution-catalyzed carbon offsets program:

A brief description of the carbon sequestration program and reporting protocol used:

Currently, Villanova does not have a carbon sequestration and reporting program.

A brief description of the composting and carbon storage program:

We compost yard clipping, including leaves. Currently we do not have a program in place to store carbon emissions resulting from the compost.

A brief description of the purchased carbon offsets, including third party verifier(s) and contract timeframes:

We do not purchase carbon offsets.

Figures needed to determine “Weighted Campus Users”::

	Performance Year	Baseline Year
Number of residential students	4,455	4,452
Number of residential employees	12	10
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	9,563	9,613
Full-time equivalent of employees	2,392	1,951
Full-time equivalent of distance education students	890	18

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 GHG emissions baseline was adopted:

We signed the Presidents Climate Commitment in 2007, and decided to use that year as our baseline.

Gross floor area of building space, performance year:

3,388,257 Square Feet

Floor area of energy intensive building space, performance year:

	Floor Area
Laboratory space	118,714 <i>Square Feet</i>
Healthcare space	0 <i>Square Feet</i>
Other energy intensive space	145,017 <i>Square Feet</i>

Scope 3 GHG emissions, performance year::

	Emissions
Business travel	---
Commuting	4,007 <i>Metric Tons of CO2 Equivalent</i>
Purchased goods and services	---
Capital goods	---
Fuel- and energy-related activities not included in Scope 1 or Scope 2	---
Waste generated in operations	---
Other categories (please specify below)	---

A brief description of the sources included in Scope 3 GHG emissions from "other categories":

In 2014, we completed a transportation survey for students, and Faculty/staff. Using the survey results we were able to estimated the campus transportation emissions.

A copy of the most recent GHG emissions inventory:

The website URL where the GHG emissions inventory is posted:

<http://rs.acupcc.org/ghg/2731/>

A brief description of the institution's GHG emissions reduction initiatives, including efforts made during the previous three years:

Outdoor Air Quality

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

We do not collect data on Ozone and ODCs.

"---" 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?:

Yes

A brief description of the policies and/or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources:

There is signage around the athletic facilities to discourage visitors from leaving their vehicle running while not moving. Large bus loads of people would come to the athletic facilities for games and other events and leave their engines running, the signage is a result of this practice.

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:

Our steam plant manager and Environmental Health and Safety Director takes measurements of all state required emissions to report back to the DOE.

Weight of the following categories of air emissions from stationary sources::

	Weight of Emissions
Nitrogen oxides (NOx)	15 <i>Tons</i>
Sulfur oxides (SOx)	4.70 <i>Tons</i>
Carbon monoxide (CO)	1.90 <i>Tons</i>
Particulate matter (PM)	0.80 <i>Tons</i>
Ozone (O3)	---
Lead (Pb)	0.00 <i>Tons</i>
Hazardous air pollutants (HAPs)	1.10 <i>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:

The university looks to reduce the use of #6 fuel in the boilers to only when we are curtailed from gas. We also completed the EPA required Boiler MACT assessment in 2014

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

Liesel Schwarz
Sustainability Manager
Facilities

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.

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

Building Design and Construction

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

"---" 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:

Driscoll Hall, Collage of Nursing: LEED NC Gold Certified
 School of Law, LEED NC Gold Certified
 Sheehan Hall, LEED CI Silver
 Sullivan Hall, LEED CI Silver
 Fedigan Hall, LEED CI Gold

Total floor area of eligible building space (design and construction):

429,282 *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)	0 <i>Square Feet</i>
3rd Highest Level (e.g. LEED Silver)	144,889 <i>Square Feet</i>
2nd Highest Level (e.g. LEED Gold)	268,493 <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 new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	0 <i>Square Feet</i>
Mid-Level	0 <i>Square Feet</i>

Highest Achievable Level	<i>0 Square Feet</i>
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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:

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:

A copy of the guidelines or policies :

The date the guidelines or policies were adopted:

Nov. 6, 2007

A brief description of the green building guidelines or policies and/or a list or sample of buildings covered:

The University has established a goal that all future new construction and major renovation projects will pursue a LEED certification. This policy is a part of the American College and University President's Climate Commitment that Villanova signed on to in 2007.

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

and policies:

Three out of our five project managers are accredited LEED professionals. An educated project manager staff has been the best way to encourage pursuing LEED certification on projects.

The website URL where information about the institution's certified buildings and/or green building design and construction guidelines or policies is available:

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/BuildingsSustainability.html>

Indoor Air Quality

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

0 Square Feet

Gross floor area of building space:

3,388,257 Square Feet

A brief description of the institution's indoor air quality program(s):

Villanova Facilities has a open request line for maintenance and specific complaints, and work requests are monitored through completion of the task. However, facilities does not do routine testing, and many of the older buildings still have original HVAC systems. All buildings are monitored for temperature, but only a handful of the newer buildings have the ability to monitor humidity or other IAQ parameters.

The website URL where information about the institution's indoor air quality program(s) is available:

<http://www1.villanova.edu/villanova/fmo/ehs/services.html>

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

Liesel Schwarz
Sustainability Manager
Facilities

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).

"---" 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:

56.20

A copy of an inventory, list or sample of sustainable food and beverage purchases:

[Dining Invoice for Fair Trade and Organic Products.pdf](#)

An inventory, list or sample of sustainable food and beverage purchases:

Fair trade fruits and vegetables, fair trade teas, coffee, bananas, sugar and chocolate, local fruit and vegetables, Monterey bay seafood watch, and cage free eggs.

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)?:

Yes

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:

4.20

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:

[Dining Invoice from UNFIR for convenience store.pdf](#)

An inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:

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

Villanova Dining Services is committed to protecting and preserving our environment. With the help of our customers we strive to reduce waste and use renewable resources as much as possible in all of our dining locations. Sustainable dining practices and waste reduction is stressed throughout our dining operations including composting and recycling. Villanova Dining Services provides sustainable options including: vegan options, organic foods, a community supported agriculture program, fair trade food products, sustainable seafood, locally grown and produced foods, and cage free eggs.

Here is a list of our sustainable initiatives:

- Trayless Dining
- Vegan Dining
- Veggie Mania
- Trans-Fats – ingredient filters
- Water – Aqua Health – free
- Pre-Consumer Food Waste Composting – Lean Path waste tracking system

- Post-Consumer Food Waste Composting - Café Nova
- Food Donations
- Recycled Content Napkins
- Discounts on refillable drinks
- Hydration stations
- Compostable disposable containers, cutlery, plates and cups – café nova, catering
- Sustainable seafood
- Cage Free eggs
- Organic salad bar
- Fry oil - 100% expeller pressed frying oil
- GMO free cooking oil – our salad oils are GMO, expeller pressed
- Fair trade foods
- Local foods – over 45% of all food purchases are from local sources and producers
- Farmers Market – Villanova Dining Services operates annually an on campus farmers market
- CSA – Lancaster Farm Fresh
- Farm to Fork Thursdays

A brief description of the methodology used to track/inventory sustainable food and beverage purchases:

Inventory items are tagged with the different traits related levels of sustainability such as organic, local, Fair Trade, and the Monterey Bay Aquarium Seafood Watch. Our food distributor also tracks purchases for us based on these traits. We use the CBORD menu management system for item identification, ordering and invoice paying.

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	Yes	Yes
Dining operations and catering services operated by a contractor	No	No
Franchises	No	No
Convenience stores	Yes	Yes
Vending services	Yes	No

Concessions	Yes	No
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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:

We are currently pursuing MSC certification, and expect to receive certification in July 2015.

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

<http://www1.villanova.edu/villanova/services/dining/sustainability.html>

Low Impact Dining

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

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

Percentage of total dining services food purchases comprised of conventionally produced animal products:

19

A brief description of the methodology used to track/inventory expenditures on animal products:

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”):

Vegan menu options are available in dining operations on campus at each meal. The residence dining halls feature complete-protein vegan entrees and vegan options which includes at least one vegan soup daily. At dinner, a vegetarian and vegan entrée are featured. In the three resident halls, a vegan refrigerator is stocked with vegan food products along with dried fruits.

A brief description of other efforts the institution has made to reduce the impact of its animal-derived food purchases:

We have participated in the Meatless Monday program for the last three years and are currently working on a marketing campaign to educate our customers more on the benefits of a plant based diet. The latter part of last year we hosted an event with over 100 guest from other college dining programs and offered a plant based breakfast, lunch and snacks. In addition, we participate in a CSA program through Lancaster Farms. The program is run out of St. Mary’s hall and is available to anyone in the Villanova community.

The website URL where information about where information about the vegan dining program is available:

http://www1.villanova.edu/villanova/services/dining/nutrition/villanova_vegan.html

Annual dining services expenditures on food:

8,257,261 US/Canadian \$

Annual dining services expenditures on conventionally produced animal products:

1,518,879 US/Canadian \$

Annual dining services expenditures on sustainably produced animal products:

511,950 US/Canadian \$

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

Liesel Schwarz
Sustainability Manager
Facilities

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.

"---" 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	472,313 <i>MMBtu</i>	506,203 <i>MMBtu</i>

Purchased electricity and steam:

	Performance Year	Baseline Year
Grid-purchased electricity	184,599 <i>MMBtu</i>	191,832 <i>MMBtu</i>
District steam/hot water	287,714 <i>MMBtu</i>	314,371 <i>MMBtu</i>

Gross floor area of building space::

	Performance Year	Baseline Year
--	------------------	---------------

Gross floor area	3,388,257 <i>Gross Square Feet</i>	3,139,757 <i>Gross Square Feet</i>
-------------------------	------------------------------------	------------------------------------

Floor area of energy intensive space, performance year::

	Floor Area
Laboratory space	118,714 <i>Square Feet</i>
Healthcare space	0 <i>Square Feet</i>
Other energy intensive space	

Degree days, performance year (base 65 °F / 18 °C)::

	Degree Days
Heating degree days	5,301
Cooling degree days	1,111

Source-site ratios::

	Source-Site Ratio (1.0 - 5.0; see help icon above)
Grid-purchased electricity	3.14
District steam/hot water	1.20

Start and end dates of the performance year and baseline year (or 3-year periods)::

	Start Date	End Date
Performance Year	Jan. 1, 2014	Dec. 31, 2014
Baseline Year	June 30, 2007	May 1, 2008

A brief description of when and why the building energy consumption baseline was adopted:

Villanova signed the Presidents Climate Commitment in 2007. As part of the commitment we were required to choose a baseline year to compare our carbon emission reduction progress to. The year we chose is the academic year from 2007 to 2008. This year was adopted

because it was the same year we signed the Presidents Climate Commitment.

A brief description of any building temperature standards employed by the institution:

Our building engineers are told to design our buildings, and their HVAC systems to meet ASHRAE. Building temperature set points fluctuate throughout the campus depending on building function and occupant comfort level.

A brief description of any light emitting diode (LED) lighting employed by the institution:

The University retrofits lighting to LED when lamps are being upgraded due to aesthetics, function, or age. All exit lighting is LED powered, and there has been an effort to use LED in outdoor and 24 hour lighting. Other applications include athletic facilities, library stacks, classrooms, and office space.

A brief description of any occupancy and/or vacancy sensors employed by the institution:

As we renovate offices, classrooms, and public areas the University retrofits the areas with switch sensors (Infrared and ultra sound) , occupancy sensors or vacancy sensors depending on the space use type.

A brief description of any passive solar heating employed by the institution:

NA

A brief description of any ground-source heat pumps employed by the institution:

One dormitory on campus utilizes a geothermal heating and cooling system to condition 20,000 square feet.

A brief description of any cogeneration technologies employed by the institution:

NA

A brief description of any building recommissioning or retrofit program employed by the institution:

We recently conducted a recommissioning of our largest lab building on campus. Due to its size and energy intensity the savings should prove to be substantial.

A brief description of any energy metering and management systems employed by the institution:

The 5 LEED buildings on campus have sub metering systems for electricity, water and heat. We also have a DVC system that controls many of the buildings on main campus. With this system we are able to reset hot water temperature based on the outside temperature and lower the temperature at night. Additionally, lighting in one of our LEED buildings is managed through the DVC system. Lastly, in our main office building occupancy sensors have been installed that turn down heating and cooling when the room is unoccupied.

A brief description of the institution's program to replace energy-consuming appliances, equipment and systems with high efficiency alternatives:

When an older appliance breaks they are replaced with newer more efficient appliances. When available we use energy star certified appliances.

A brief description of any energy-efficient landscape design initiatives employed by the institution:

NA

A brief description of any vending machine sensors, lightless machines, or LED-lit machines employed by the institution:

NA

A brief description of other energy conservation and efficiency initiatives employed by the institution:

NA

The website URL where information about the institution's energy conservation and efficiency initiatives is available:

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/EnergyClimateSustainability.html>

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

184,599 MMBtu

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

Villanova has a 4kW PV system located on the CEER building. The system contains 3 parallel strings of 8 series Suntech 170 W modules. The inverter is Fronius IG 4500-LV. The RECs belong to Sustainable Energy Fund as a partial founder of the project.

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

Villanova does have geothermal HVAC installed on campus. The energy output is unknown.

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:

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

Natalie Walker

Student
Engineering

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>225 Acres</i>
Footprint of the institution's buildings	<i>29.56 Acres</i>
Area of undeveloped land, excluding any protected areas	<i>50 Acres</i>

Area of managed grounds that is::

	Area
Managed in accordance with an Integrated Pest Management (IPM) Plan	<i>145.44 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:

The IPM plan :

Villanova uses IPM on grounds throughout campus. We have not used fungicide in the past 23 years; instead, we work to limit watering to nighttime or early morning when temperatures are low and use fertilize when needed in spring and fall. Pesticides are only used as a last resort (limited to ~4 times in 18 years, mostly on athletic fields). We closely monitor for pests and use cultural practices when possible to help control the pests before they reach a threshold. Herbicides are used sparingly. Again we use cultural practices to control weeds (e.g., hand weeding, weed whacking and mowing before weeds go to seed, mulching, and monitoring for weeds and invasive species). In winter we also continue to remove invasive species from around the perimeter of campus, such as along fences, railroad tracks and meadows. We utilize these practices on all 225 acres of campus grounds.

A brief summary of the institution's approach to sustainable landscape management:

Villanova uses the "Integrated Plant Management" approach which uses different techniques to maintain a healthy landscape. This approach starts with proper horticultural practices, such as pruning, mulching, mowing at appropriate intervals and correct height and

aeration. Villanova utilizes recycled organic materials for its mulch and soil amendments where possible. They then set thresholds for introduction of organic fertilizers based on soil testing, and use biometric thresholds when determining suppression of pests and diseases. The introduction of beneficial insects to control insects is the first line of control when warranted and appropriate. As a last resort, Villanova will utilize chemical fertilizers, herbicides and pesticides.

A brief description of how the institution protects and uses existing vegetation, uses native and ecologically appropriate plants, and controls and manages invasive species:

The grounds department mainly orders native plants for their projects on campus. When replacing plants, Grounds prioritizes native plants over non-native or invasive plants.

A brief description of the institution's landscape materials management and waste minimization policies and practices:

Villanova does not have written policies for the landscape materials management or waste minimization. However, Villanova has been committed to those practices for over 23 years. The practices have evolved over the years to incorporate best practices as established by University research and industry experience.

A brief description of the institution's organic soils management practices:

Villanova's organic soils management practices are the basis for the University's "Integrated Plant Management" practices.

A brief description of the institution's use of environmentally preferable materials in landscaping and grounds management:

Villanova does not have written policies for using environmentally preferable materials in landscaping and grounds management, but DOES follow industry recognized practices which promote a healthy landscape and environment.

A brief description of how the institution restores and/or maintains the integrity of the natural hydrology of the campus:

Villanova's Grounds Maintenance department works very closely with Dr. Traver in the Environmental Engineering department to provide the best and latest methods of maintaining the integrity of the natural hydrology of the campus. The Villanova campus is considered a model for this type of management, having over a dozen different actual sites including rain gardens, several porous paving installations, bio retention basins, underground infiltration beds, etc.

A brief description of how the institution reduces the environmental impacts of snow and ice removal (if applicable):

Villanova's primary concern and commitment is ensuring the safety of the community during snowy/icy conditions. When possible, the grounds department will minimize the application of salt products and/or choose products that they believe have the least environmental impact.

A brief description of any certified and/or protected areas:

N/A

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

No

The website URL where information about the institution's sustainable landscape management programs and practices is available:

<http://www1.villanova.edu/villanova/fmo/maintenance/grounds.html>

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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?:

No

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:

While Villanova does not own or manage any legally protected areas or priority sites for biodiversity, the school has a number of undeveloped wetlands located on campus.

Has the institution conducted an assessment or assessments to identify endangered and vulnerable species with habitats on institution-owned or –managed land?:

No

Has the institution conducted an assessment or assessments to identify environmentally sensitive areas on institution-owned or –managed land?:

No

The methodology(-ies) used to identify endangered and vulnerable species and/or environmentally sensitive areas and any ongoing assessment and monitoring mechanisms:

N/A

A brief description of identified species, habitats and/or environmentally sensitive areas:

N/A

A brief description of plans or programs in place to protect or positively affect identified species, habitats and/or environmentally sensitive areas:

There is not a formal program in place to protect and/or create wildlife, but the undeveloped wetlands and gardens on campus are used to encourage and protect local wildlife.

The website URL where information about the institution's biodiversity policies and programs(s) is available:

<http://www.nwf.org/~media/Campus-Ecology/Files/Case-Studies/villonova-water-FINAL1.ashx>

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

Liesel Schwarz
Sustainability Manager
Facilities

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?:

No

A copy of the electronics purchasing policy, directive, or guidelines:

The electronics purchasing policy, directive, or guidelines :

Many of the computers we purchase are EPEAT certified, but it is not a requirement.

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

Our IT center controls all the computer purchasing for the campus and is able to monitor what kind of units are being purchased. In the summer of 2015 all computers on campus will be updated. For this update we are looking at only EPEAT certified computers. this will ensure that any old computers on campus that are still in use but not EPEAT certified are phased out.

Does the institution wish to pursue to pursue Part 2 of this credit (expenditures on EPEAT registered electronics)?:

No

Expenditures on EPEAT registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment::

	Expenditure Per Level
EPEAT Bronze	---
EPEAT Silver	---
EPEAT Gold	---

Total expenditures on desktop and laptop computers, displays, thin clients, televisions, and imaging equipment:

The website URL where information about the institution's electronics purchasing policy, directive, or guidelines is available:

Cleaning Products Purchasing

Responsible Party

Natalie Walker

Student
Engineering

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:

The green cleaning product purchasing policy, directive, or guidelines:

We purchase green seal certified cleaning products across campus. this past year we started using blue cleaning through Ararmak, an ionized water cleaning solution. This has reduced our need to buy additional cleaning products, including green seal. Blue cleaning is not only green cleaning, but it helps protect the floors and other surfaces from the harmful chemicals that would normally required regular refinishing.

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

The Procurement Department works closely with Custodial Services' Director on specifying the products that will be bid each year. We pick green seal products whenever available. The blue clean solution helps to reduce the need to buy additional cleaning solutions.

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:

214,719 US/Canadian \$

Total expenditures on cleaning and janitorial products:

285,333 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:

Starting in the Fall of 2013 our custodial staff has switched over to Blue cleaning, an ionized water cleaning solution for floors, windows and non-kitchen surfaces. This has drastically reduced the amount of chemicals we need to buy and the bottles wasted to store those chemicals.

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

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

The website URL where information about the institution's green cleaning initiatives is available:

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/BuildingsSustainability/BuildingOperatingPracticesSustainability.html>

Office Paper Purchasing

Responsible Party

Natalie Walker

Student

Engineering

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.

Submission Note:

These expenditures are from Fiscal Year 2014 (May 1, 2013 - April 30, 2014).

"---" 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?:

Yes

A copy of the paper purchasing policy, directive or guidelines:

[Purchasing of Office Supplies and Copy Paper_Approved 2002.pdf](#)

The paper purchasing policy, directive or guidelines:

The Procurement Department has entered into a partnership agreement with Office Basics, Inc. to be the exclusive supplier of office supplies and copy paper. The University has also committed to purchasing products with the highest percentage of recycled content available provided that the products meet acceptable use and performance standards.

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

[STARS Reporting Tool | AASHE](#)

All purchases are monitored and reviewed by the Procurement Department to meet compliance. Products with recycled content are cataloged within the internal procurement database.

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	300 <i>US/Canadian \$</i>
30-49 percent	102,583 <i>US/Canadian \$</i>
50-69 percent	0 <i>US/Canadian \$</i>
70-89 percent (or FSC Mix label)	540 <i>US/Canadian \$</i>
90-100 percent (or FSC Recycled label)	0 <i>US/Canadian \$</i>

Total expenditures on office paper :

115,122 *US/Canadian \$*

The website URL where information about the paper purchasing policy, directive, or guidelines is available:

Inclusive and Local Purchasing

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?:

No

A copy of the policy, guidelines or directive governing inclusive and local purchasing:

The policy, guidelines or directive governing inclusive and local purchasing:

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:

Life Cycle Cost Analysis

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.

"---" 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?:

Does the institution employ LCCA as a matter of policy and practice across the operations of the entire institution (i.e. all divisions)?:

A brief description of the LCCA policy(ies) and practice(s):

The website URL where information about the institution's LCCA policies and practices is available:

Guidelines for Business Partners

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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?:

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?:

A copy of the policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):

The policies, guidelines, and/or agreements with the institution's business partners (or a representative sample):

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:

The website URL where information about the institution's guidelines for its business partners is available:

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

Natalie Walker
Student
Engineering

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.

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

Total number of vehicles in the institution’s fleet :

180

Number of vehicles in the institution's fleet that are::

	Number of Vehicles

Gasoline-electric, non-plug-in hybrid	0
Diesel-electric, non-plug-in hybrid	0
Plug-in hybrid	0
100 percent electric	10
Fueled with compressed natural gas (CNG)	0
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:

Villanova Biodiesel Program was established with the purpose of giving opportunities for Villanova University (VU) students to apply what they learn in the classroom into practice. At the heart of the program were the design, construction and operation of a biodiesel production process facility, housed in the chemical engineering department, capable of processing up to 3200 gallons waste cooking oil supplied from VU on-campus dining facilities to produce biodiesel and glycerol. The biodiesel produced was delivered to VU Facilities to be used as fuels for their maintenance activities, such as mowing lawns.

In the past year, the biodiesel program has been focused on research on developing methods of evaluating the quality of biodiesel produced from the facility, improving the consistency biodiesel product quality, and determining the best application of the glycerol by-product. The current focus on utilizing glycerol is for soap production, with a long term goal of using the soap on campus.

To foster the interest of students on the biodiesel program, the College of Engineering developed a 7-week mini course comprised of multidisciplinary projects on Biofuels and Sustainability for Freshman Engineering students. In the mini course, freshman students gain hands on experience of synthesizing and characterizing biodiesel from waste cooking oil. Students also learn how to make soap from the glycerol by-product. This mini course has been an effective tool of recruiting students to participate and take active roles in the VU Biodiesel program.

The website URL where information about the institution's support for alternative fuel and power technology is available:

<http://www1.villanova.edu/villanova/engineering/newsevents/newsarchives/2009/biodiesel.html>

Student Commute Modal Split

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

60

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)	40
Walk, bicycle, or use other non-motorized means	51
Vanpool or carpool	3
Take a campus shuttle or public transportation	6
Use a motorcycle, scooter or moped	---

A brief description of the method(s) used to gather data about student commuting:

A transportation survey was sent out to the student body asking about transportation habits and use. Part time students are not included in this calculation

The website URL where information about sustainable transportation for students is available:

Employee Commute Modal Split

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

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

Total percentage of the institution's employees that use more sustainable commuting options:

17

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)	83
Walk, bicycle, or use other non-motorized means	6
Vanpool or carpool	0
Take a campus shuttle or public transportation	11
Use a motorcycle, scooter or moped	0
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:

In 2014, the university surveyed all faculty and staff employees regarding their transportation habits and preferences. From the results we are able to estimate commuting usage.

The website URL where information about sustainable transportation for employees is available:

Support for Sustainable Transportation

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Most campus buildings and all residence halls have bike racks located next to or near the entrance of the building. In addition, we have several facilities on campus with showers, including athletics (which is open to all faculty and staff), the Law School, Nursing school, and of course dormitories. Lockers for bicycle commuters are not provided because all Villanova employees have either an office or locker on campus. Students who live off campus have free access to the gym lockers, which are located in the same building as the public showers. Employees can also use the free gym locker rooms.

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)?:

No

A brief description of the bicycle parking and storage facilities:

We have 34 bike rack locations around campus, many near dormitories and major academic buildings, but we do not have bike racks next to every building.

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:

During the summer of 2013, Villanova completed the Transforming the Campus Landscape renovation, which included a walkability assessment of the campus to identify preferred walking paths throughout campus. As part of the project new walkways were installed throughout the center of campus and vehicles are now prohibited from driving in the center of campus. This change has made the center of campus a pedestrian and bike friendly environment. With no cars to worry about, bicyclist and walkers are able to move about the campus without worry of vehicle traffic. New bike racks were also installed throughout the center of campus to make biking a more viable option for students, faculty and staff.

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:

In September 2014, we launched the Nova Bike Share. Students (undergraduate and graduate) can rent a bike for a semester or year free of charge. We started with 30 bikes. the program comes with the bike, lock, maintenance and winter storage. In our first semester we sold out in 10 hours!

Bikes for the program come from Devereux's bike shop, where unwanted bikes are dropped off and fixed up for reuse. Devereux works with adults with intellectual disabilities to teach them work skills they can use to help support themselves, such as bike maintenance.

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?:

No

A brief description of the certification, including date certified and level:

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):

The Commuter Benefit Plan allows VU Employees to pay for eligible transit expenses through pre-tax payroll deductions. Two train lines run along and stop on campus as well as a bus line.

A Villanova campus shuttle runs throughout campus during school hours and an additional shuttle runs off campus to major apartment complexes and businesses (hospital, pharmacy, shopping, etc.). The shuttle is available for all students, and employees of Villanova.

<http://www1.villanova.edu/villanova/parking/shuttle.html>

Does the institution offer a guaranteed return trip (GRT) program to regular users of alternative modes of transportation?:

No

A brief description of the GRT program:

Does the institution participate in a car/vanpool or ride sharing program and/or offer reduced parking fees or preferential parking for car/vanpoolers?:

No

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:

Student Life manages a ride board and the Zip-Car car-sharing program available for all students and employees as well as community members.

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:

Yes, Villanova has one level 2 charging station in the Nursing school parking lot. It is capable of charging for electricity, but is currently set up to provide free charging for anyone who needs it.

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:

Villanova University leaves it to discretion of supervisors to grant telecommuting benefits. For example, the Facilities department has 4 employees who have a regular telecommute day either every week or every month depending on the need.

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:

At the discretion of the President, a decision will be made annually to provide an adjusted schedule for full time staff employees during the summer months. If approved, employees will have the opportunity for early dismissal at 12 noon on designated Fridays, without any reduction in pay.

If an employee desires a year round change in his or her schedule they are able to discuss that matter with their supervisor and if needed

HR will approve the change. Condensed work weeks may result in reduced pay, but not reduced benefits unless hours fall below full time requirements.

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

No

A brief description of the incentives or programs to encourage employees to live close to campus:

Villanova does not currently have a program in place to reward the purchase of a regional home by employees.

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:

Villanova offers employees the WageWorks program that allows employees to use pre-tax dollars on public transit costs.

The website URL where information about the institution's sustainable transportation program(s) is available:

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/TransportationSustainability.html>

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

Liesel Schwarz
Sustainability Manager
Facilities

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*.

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

Waste generated::

	Performance Year	Baseline Year
Materials recycled	1,017 Tons	525 Tons
Materials composted	280 Tons	85 Tons
Materials reused, donated or re-sold	5 Tons	10 Tons
Materials disposed in a solid waste landfill or incinerator	3,154 Tons	2,567 Tons

Figures needed to determine "Weighted Campus Users":

	Performance Year	Baseline Year
Number of residential students	4,455	4,300
Number of residential employees	12	12
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	9,563	7,931
Full-time equivalent of employees	2,392	1,951
Full-time equivalent of distance education students	890	18

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, 2008	Dec. 31, 2008

A brief description of when and why the waste generation baseline was adopted:

Date of earliest accurate available data.

A brief description of any (non-food) waste audits employed by the institution:

A brief description of any institutional procurement policies designed to prevent waste:

At this time Villanova does not have a formal policy in place to prevent waste. We have on occasion included waste reduction language in larger request for proposals, such as furniture.

A brief description of any surplus department or formal office supplies exchange program that facilitates reuse of materials:

Facilities collects unwanted furniture and reuses it across campus or donates the item to local charities.

A brief description of the institution's efforts to make materials available online by default rather than printing them:

An online version of the course catalog and campus directory is available to students faculty and staff. Faculty are encouraged to use blackboard for class material dissemination.

A brief description of any limits on paper and ink consumption employed by the institution:

Students are given a printing dollar limit, they are able to increase that limit if the student pays for the added pages.

A brief description of any programs employed by the institution to reduce residence hall move-in/move-out waste:

For move out, signs are posted in each resident hall and brought up at each of the final Resident Assistant meeting before move out about how all waste and recycling is to be handled. Students will receive clear plastics trash bags where they put all of their mixed paper waste to be recycled. Bottles, cans and plastics are recycled in the same bins as usual. Donation boxes are placed in the lobbies of each resident hall where students can place all of their usable items that they are not taking home with them. All of these items are collected by the recycling crew, sorted by volunteers in the Villanova community, and then picked up and donated to local charities.

For move-in, the recycling team is ready to help break down boxes and recycling any unwanted packaging.

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:

In the Fall of 2014, students collected and piled trash from the two main dining halls onto the ellipse in the center of campus. The event was called Mt. Trashmore and meant to raise awareness of waste on campus. A few waste audits were done on the trash to see what inside could have been recycled or composted.

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:

Dining services is currently using the LeanPath Program to track all pre-consumer food waste on campus.

A brief description of programs and/or practices to track and reduce post-consumer food waste:

A few years back dining implemented trayless dining across the campus to help reduce food waste and water use.

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):

Cafe Nova, an a la carte dining hall, uses only compostable items including to-go containers, silverware, etc.

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):

We have three all-you-care-to-eat dining halls on campus, they all use reusable service ware.

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:

Anyone who uses a reusable mug with a Villanova University logo on it will get a \$0.25 discount on their drink. Branded reusable mugs are available at all cafe's on campus, prices range from \$2 to \$10.

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://www1.villanova.edu/villanova/fmo/recycling/about.html>

Waste Diversion

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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*.

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

Materials diverted from the solid waste landfill or incinerator:

1,303 *Tons*

Materials disposed in a solid waste landfill or incinerator :

3,154 *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:

Villanova University Recycling has been recycling since 1994 and is currently recycling over 20 different types of materials. The recycling program is primarily targeted to just the faculty, staff, and students of Villanova, however there are some items that the outside community are allowed to recycle with the program. Almost all recycling and municipal waste is collected on campus and handled appropriately by university employees. Only a few items such as food waste are handled by outside contractors. For over the past decade the recycling program recycled at an average rate of 25%. In the past two years that rate has risen to 41%. The increased recycling rate can be contributed to two main factors, 1. A formal waste minimization and recycling committee was formed back in 2010 with representation of departments that are key in generating waste. 2. The University started formally recycling all construction waste in 2013.

A brief description of any food donation programs employed by the institution:

Currently we donate all perishable products in our inventory before we close for breaks (fall, spring, and Christmas) to Philabundance.

We also participate in the food recovery network and donate leftover food from the dining halls to a local soup kitchen. During Fall 2014 the students donated over 600 pounds of food.

In addition, we have other food donation programs such as Sunday Breakfast Mission, Shiloam Ministries, and many other events such as Special Olympics, Relay for life, and St. Thomas of Villanova Day of Service.

A brief description of any pre-consumer food waste composting program employed by the institution:

All food trimmings produced during food preparation is weighed, recorded and placed in the composting cans. These cans are stored in a walk-in refrigerator designated for food waste and then they are picked up by waste management and delivered to composting facility. The Recycling Coordinator makes the arrangement for the pickup and delivery of the food waste.

Utilizing the data from our Lean Path system as a department we have tracked on average 2,463 lbs of pre-consumer waste a week that is composted.

A brief description of any post-consumer food waste composting program employed by the institution:

In Donahue, Dougherty and St. Mary’s dining halls post consumer food waste is scraped from plates\bowls and run through a pulper and stored in the same manner as the pre-consumer compost until it is picked up by Waste Management. Also Café Nova uses all compostable plates, cups and flatware.

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	Yes
Food for animals	No
Food composting	Yes
Cooking oil	Yes
Plant materials composting	Yes
Animal bedding composting	No
Batteries	Yes
Light bulbs	Yes
Toner/ink-jet cartridges	Yes

White goods (i.e. appliances)	Yes
Laboratory equipment	Yes
Furniture	Yes
Residence hall move-in/move-out waste	Yes
Scrap metal	Yes
Pallets	Yes
Motor oil	Yes
Tires	Yes

Other materials that the institution includes in its waste diversion efforts:

Besides the materials that already have been mentioned, Villanova University also recycles all of its E-Waste, Universal waste and different types of automotive waste.

Construction and Demolition Waste Diversion

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

Data from 2014

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

Construction and demolition materials recycled, donated, or otherwise recovered:

531 Tons

Construction and demolition materials landfilled or incinerated :

123 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:

A new policy for construction waste was initiated in 2013. All construction projects and construction waste generated on campus are now required to use the roll-off dumpster services from our official vendor, Revolution Recovery, where over 80% of our construction waste is recycled.

Hazardous Waste Management

Responsible Party

Hector Cuadros

Student

Engineering

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:

Some of the strategies we use to reduce the volume of chemical waste (both hazardous and non-hazardous) include the following:

- a) Buy hazardous chemicals in amounts that will be used up in a year or less.
- b) Use our on-line inventory to share or borrow chemicals whenever possible.
- c) Buy chemicals under the agreement that you can return the unused portion. For example, Villanova leases gas cylinders or try to buy under an agreement so that unused cylinders can be returned to vendor.
- d) Universal Waste = certain types of hazardous waste that are recycled. (Universal waste is a form of waste minimization.)
- e) Recycle chemicals whenever possible (ie, waste oil)

A brief description of how the institution safely disposes of hazardous, universal, and non-regulated chemical waste:

- 1) We have a contract with a chemical disposal vendor. They take both our hazardous and non-hazardous chemical waste. Pick-ups are done twice a year according to our current EPA generator status.

2) We have several Universal Waste vendors who RECYCLE our universal waste. Villanova ships universal waste at least twice annually to maintain compliance with universal waste standards. Pick-ups are done on an “as needed” basis.

A brief description of any significant hazardous material release incidents during the previous three years, including volume, impact and response/remediation:

We have had no significant hazardous material release incidents in the past 3 years.

A brief description of any inventory system employed by the institution to facilitate the reuse or redistribution of laboratory chemicals:

Villanova has an on-line chemical inventory system. Its main purpose is to track our chemicals but it can be used to share or redistribute chemicals. We are also updating the system in 2014 to an inventory system known as Chem-Tracker.

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?:

No

A brief description of the electronic waste recycling program(s):

All Villanova University members have to contact UNIT or Recycling to have any e-waste removed from their area. Nothing can be put into any dumpsters.

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 Pennsylvania law no e-waste is allowed in our municipal waste. All Villanova e-waste is collected on campus by UNIT (university IT) or Villanova University Recycling. All workers use the necessary safety items when handling the e-waste (gloves and hand trucks). When necessary all data is cleaned from appropriate e-waste and then stored in a garage with all other e-waste. Once the garage is full a licensed e-waste recycler removes all of our e-waste. Villanova receives a certificate from the e-waste recycler certifying that all of Villanova's e-waste has been recycled. Villanova ships electronic scraps at least once per year to maintain compliance with universal waste standards.

The website URL where information about the institution's hazardous and electronic-waste recycling programs is available:

<http://www1.villanova.edu/villanova/fmo/recycling/programs/ComputersElectronics.html>

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

Liesel Schwarz
Sustainability Manager
Facilities

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.

"---" 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	141,720,300 Gallons	99,727,800 Gallons

Potable water use::

	Performance Year	Baseline Year
Potable water use	141,720,300 Gallons	99,727,800 Gallons

Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
--	------------------	---------------

Number of residential students	4,455	4,452
Number of residential employees	12	10
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	9,653	9,613
Full-time equivalent of employees	2,392	1,951
Full-time equivalent of distance education students	890	18

Gross floor area of building space::

	Performance Year	Baseline Year
Gross floor area	3,388,257 <i>Square Feet</i>	3,139,757 <i>Square Feet</i>

Area of vegetated grounds::

	Performance Year	Baseline Year
Vegetated grounds	100 <i>Acres</i>	103 <i>Acres</i>

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	Jan. 9, 2014	Jan. 5, 2015
Baseline Year	Jan. 9, 2007	Jan. 9, 2008

A brief description of when and why the water use baseline was adopted:

The baseline year was chosen because that is the earliest year accurate data is available.

Water recycled/reused on campus, performance year:

Recycled/reused water withdrawn from off-campus sources, performance year:

0 Gallons

A brief description of any water recovery and reuse systems employed by the institution:

The University collects rain water from select campus buildings in rain barrels and dispenses the water via a soaker hose to surrounding plantings. The campus buildings utilizing this system include John Barry, Fedigan, Middleton, and O'Dwyer. Areas watered in this way are not irrigated via township water. In the winter, water is redirected to the drains as to prevent rain barrels from freezing and bursting in the colder months. The volume of water recovered this way is unknown.

A brief description of any water metering and management systems employed by the institution:

We have individual water meters for a few of our campus buildings, we also have meters on our cooling towers to monitor their performance.

A brief description of any building retrofit practices employed by the institution, e.g. to install high efficiency plumbing fixtures and fittings:

The new Law School, completed in 2009, utilizes efficient fixtures, thus using 41% less water. The College of Nursing Building, completed in 2008, also employs efficient fixtures, using 37% less water. In the renovation of Shennan and Sullivan Halls, dual flush toilets, low flow shower heads and motion sensitive water faucets were installed, reducing water use by 25%. Water were also replaced with more efficient fittings, including dual flush toilets and low flow showerheads in the renovation of the Fedigan Hall dormitory. As fixtures break we replace them with efficient water fixtures.

A brief description of any policies or programs employed by the institution to replace appliances, equipment and systems with water-efficient alternatives:

When fixture replacement is needed we use only water efficient fixtures to replace them with, this includes faucets, toilets and urinals, shower heads, dishwashers and washing machines.

A brief description of any water-efficient landscape design practices employed by the institution (e.g. xeriscaping):

The campus landscape is basically non-irrigated, with a wide variety of plant material, some, but not all considered native plant material. Regular irrigation is used very sparingly on campus such as athletic fields. Irrigation does take place where there are new plantings as well as during extreme dry conditions, in order to maintain the life of some plants.

A brief description of any weather-informed irrigation technologies employed by the institution:

Because we have very little permanent irrigation around campus the University does not utilize weather informed irrigation technology. The athletic fields that do have permanent irrigation are not set on a time, there are turned on manual when needed based off weather and/or use. The rest of campus is irrigated as needed based on weather and use. Peak heat hours (mid day) are avoided when possible.

A brief description of other water conservation and efficiency strategies employed by the institution:

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

Rainwater Management

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

Villanova Urban Stormwater Partnership (VUSP) webpage:

<http://www1.villanova.edu/villanova/engineering/research/centers/vcase/vusp1.html>

Description of stormwater infrastructure on campus:

http://www1.villanova.edu/content/dam/villanova/engineering/vcase/Otherpublications/VU_SCM-Overview_8.6.13.pdf

Map of stormwater management infrastructure on campus:

<http://www1.villanova.edu/content/dam/villanova/engineering/vcase/vusp/SCM%20Map.PNG>

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:

Currently the campus utilizes a number of stormwater management or green infrastructure projects on campus including rain gardens, bioswales and stormwater wetlands. A part of the Villanova Urban Stormwater Partnership (VUSP), many of our stormwater projects are maintained and used for research by faculty and students. We include green infrastructure on new construction projects as well.

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:

In the campus master plan, which outlines future campus development, there is an entire section dedicated to the stormwater management for the proposed new development. The Plan, with final recommendations published in 2008, mentions rain gardens and green roofs.

A brief description of any rainwater harvesting employed by the institution:

The University collects rain water from select campus buildings in rain barrels and dispenses the water via a soaker hose to surrounding plantings. The campus buildings utilizing this system include John Barry, Fedigan, Middleton, and O'Dwyer. In the winter, water is redirected to the drains as to prevent rain barrels from freezing and bursting in the colder months. The volume of water harvested and reused this way is unknown and areas irrigated in this way are not irrigated using public water.

Rainwater harvested directly and stored/used by the institution, performance year:

A brief description of any rainwater filtering systems employed by the institution to treat water prior to release:

The West Campus Bio-infiltration Rain Garden collects run-off from West Campus student parking lots, which is removed via evapotranspiration and infiltration, with studies showing a reduction in nitrogen, phosphorus, metals, and other parameters. The Law School Stormwater Wetland treats 41 acres of runoff, including 16 acres of impervious surface. The Parking Lot Treatment Train, incorporating a vegetated swale and two rain gardens act as pretreatment to reduce sediment, followed by an infiltration trench. A number of other rain gardens are located throughout campus, where water's release through evapotranspiration, absorbed by garden plants, or filtered through the garden bed.

A brief description of any living or vegetated roofs on campus:

The engineering building has a green roof, with the planted area measuring about 530 square feet, and is used for research and student learning. This roof is designed to capture the first half inch of any storm event. The nursing building also has a small green roof over the main entrance. More information on the green roof installed on the engineering building can be found at:

<http://www1.villanova.edu/villanova/engineering/research/centers/vcase/vusp1/research/green-roof.html>

A brief description of any porous (i.e. permeable) paving employed by the institution:

The Mendel Parking Lot incorporates an area of 50' x 30' each of pervious concrete and porous asphalt, and serves as a test site to compare the two technologies. Permeable pavers used in campus walkways capture approximately 50,000 square feet of most impervious surface area. More information on pervious concrete used in campus walk ways can be found at:

<http://www1.villanova.edu/villanova/engineering/research/centers/vcase/vusp1/research/pervious-concrete-.html>

A brief description of any downspout disconnection employed by the institution:

Many of the stormwater management installations throughout campus employ downspout disconnection, including rain barrels and the West Campus Dormitory rain garden.

A brief description of any rain gardens on campus:

An estimated 15+ rain gardens are present throughout campus, including those at the West Campus Dormitories, Fedigan Hall, Austin Hall, the Pavillion, and the sports fields on West Campus. The different rain gardens are detailed on the VCASE website:

<http://www1.villanova.edu/villanova/engineering/research/centers/vcase/vusp1/research/bio-infiltration-rain-garden.html>

A brief description of any stormwater retention and/or detention ponds employed by the institution:

Several retention/detention ponds exist throughout campus: at the engineering building, behind the stadium, at the sports fields, behind the Connolly Center, underground near the nursing building, and underground near to the Campus Corner restaurant.

A brief description of any bioswales on campus (vegetated, compost or stone):

St Augustine parking garage utilizes the nearby vegetated swale for its stormwater runoff as part of a treatment train, and serving as a pre-filter to reduce sediment in runoff arriving at an infiltration trench.

A brief description of any other rainwater management technologies or strategies employed by the institution:

With the help of faculty on campus, students have designed, built and installed rain barrels around campus to collect rainwater for irrigation. An historic seepage pit also exists, receiving stormwater runoff from Tolentine Hall and the St. Thomas Monastery.

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

<http://www1.villanova.edu/villanova/sustainability/CampusSustainabilityBuildingsGroundsStormwaterDiningRecycling/StormwaterSustainability.html>

Wastewater Management

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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*.

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

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

Liesel Schwarz
Sustainability Manager
Facilities

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:

Villanova's Sustainability Manager was hired in March 2013. Over the past 2 years she has redesigned the Villanova Sustainability website to make it more informative and user friendly. Additionally, Villanova participated in campus sustainability day for the first time fall 2013 and again in 2014, has started an athletic eco-rep program, puts out a sustainability newsletter once a month, organized VU's first zero waste game, orchestrated the SPARK Innovation competition, implemented the Nova Bike Share and is starting to develop a sustainability plan for the University. Additional information on campus sustainability improvements over the past year can be found on the Villanova Annual Sustainability Report.

<http://www1.villanova.edu/content/dam/villanova/sustainability/SustainabilityReport2014.pdf>

Villanova also has a Recycling Coordinator, who this past year helped pull together a construction waste contract for the University that requires all of our construction waste to go through Revolution Recovery. Now instead of all the construction waste being thrown out, it is recycled. Additionally, in the past three years our recycling rate has increased from 26.7% to 41% due to the expansion of campus composting, our new construction waste recycling program and continued growth of traditional recycling.

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 President's Environmental Sustainability Committee (PESC) at Villanova University is comprised of faculty, staff, and students from across campus who share a passion for environmental issues and a desire to strengthen Villanova's commitment to sustainability. The PESC exists to help coordinate, support, advance, and track sustainable practices and policies on campus and to implement the President's Climate Commitment on behalf of the university.

Both to focus the work of the PESC and to broaden the involvement of the campus community, the President's Environmental Sustainability Committee has several working groups open to faculty, staff, and students interested in a specific area. They include: waste minimization, transportation, energy use and operations, green labs, academics and student life, earth day, students, and the law school. Over the past year, PESC and the working groups have worked on a campus wide transportation survey set to be sent out spring and fall of 2014, smart printing solutions, new recycling signage, RA sustainability boards, awareness of sustainable academic offerings, bird-friendly design awareness, and coordinating the 2014 and 2015 Earth Day. In addition, every spring the PESC releases an annual Campus Sustainability Report, summarizing the past years sustainability achievements.

<http://www1.villanova.edu/content/dam/villanova/sustainability/SustainabilityReport2014.pdf>

Members of each committee, including affiliations and role (e.g. staff, student, or faculty):

Liesel Schwarz, Committee Chair, Sustainability Manager

Faculty

Jonathan Doh, Villanova School of Business

Steven Goldsmith, College of Liberal Arts & Science

Keith Henderson, College of Liberal Arts & Sciences

Bill Lorenz, College of Engineering

Ruth McDermott-Levy, College of Nursing

Lisa Rodrigues, College of Liberal Arts & Sciences

Paul Rosier, College of Liberal Arts & Sciences

Robert Traver, College of Engineering

Nathaniel Weston, College of Liberal Arts & Sciences

Ann Scheve, College of Nursing

Staff

Alice Lenthe, Director of Environmental Health and Safety

Brenda Grove, Director of College Outreach

Cheryl Morris, Communications Associate for Advancement

Jared Rudy, Superintendent of Grounds

Kiera Daly, Media Relations Specialist

Marilou Smith, Senior Project Manager, University Engineering and Construction Services

Michelle Moss, University Dining Services
Patrick Higgins, University Procurement
Richard Laudenslager, University Recycling Coordinator
Shawn Proctor, Office of University Communications
William Stehl, Center for Peace and Justice

Students:

Kristen Shannon, Co-Chair, Mechanical Engineering
Alissa Welker, Co-Chair, Environmental Science
Charlotte Ahern, Communications Co-Chair, Global Interdisciplinary Studies, focus in Sustainability
Alyssa Suhm, Communications Co-Chair, Environmental Studies and Global Interdisciplinary Studies
Bridget Black, Secretary Co-Chair, Political Science and Environmental Studies
Elena Koumis, Secretary Co-Chair, Biology
Allen Landis, Masters in Sustainable Engineering (Graduate)
Sevda Alanyi, Civil and Environmental Engineering (Graduate)
Gabiella Antonio, Management Information Systems (MIS) and Spanish
Philip Armstrong, Civil and Environmental Engineering
Kevin Britt, Civil Engineering
Samantha Butwill, Civil Engineering
Joseph Caulfield, Environmental Science
Emma Chudwick, Environmental Studies
Rebecca Connolly, Civil Engineering
Shaye Glovas, Science Undeclared
Shea Maney, Communications
Nicholas Pajerowski, Environmental Science
Joseph Piro, Chemical Engineering
Thomas Saldutti, Mechanical Engineering
Megan Simmons, Accounting and Finance
Devin Smith, Environmental Science
Victoria Waldo, Finance and Marketing
Natalie Walker, Masters in Sustainable Engineering (Graduate)

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

<http://www1.villanova.edu/villanova/sustainability/about/Committees.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:

In 2013, Villanova hired its first full-time Sustainability Manager housed out of the Facilities Management Department. The position reports directly to the Director of Engineering & Construction. The sustainability manager's role is to address the Presidents Climate Commitment, build awareness and understanding of sustainability on campus, work with faculty, staff and students to implement sustainability projects and events, and act as a resource for Villanova in regards to sustainability.

Villanova also has a full-time Recycling Coordinator who has been here for over 12 years. This position reports directly to the Superintendent of Grounds. The recycling coordinator is responsible for all waste diversion efforts including recycling of paper, plastic, cardboard, metal, construction waste, ink jet cartridges, cell phones, light bulbs, electronics, and more. He also helps with composting and coordinates the move-in and move-out waste diversion efforts.

Full-time equivalent (FTE) of people employed in the sustainability office(s):

2

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

<http://www1.villanova.edu/villanova/sustainability/about/People.html>

Does the institution have at least one sustainability officer?:

Yes

Name and title of each sustainability officer:

Liesel Schwarz

A brief description of each sustainability officer position:

Provide leadership and oversight on all aspects of campus sustainability, including management and implementation of the climate action plan. Serve as a resource for information on sustainability initiatives across campus. Promote and coordinate efforts of faculty, students, staff and community members engaged in sustainability initiatives. Assist with all aspects of the university's energy program including procurement, trending, demand response programs, and general reduction of energy use.

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

<http://www1.villanova.edu/villanova/sustainability/about/Contact.html>

Sustainability Planning

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Villanova has an Environmental Sustainability Policy that was developed in 2004 which states the University's overarching commitment to sustainability but does not outline clear goals or metrics on how to achieve these commitments.

"---" 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	No
Research (or other scholarship)	Yes	No
Campus Engagement	Yes	Yes
Public Engagement	No	No
Air and Climate	Yes	Yes
Buildings	Yes	Yes
Dining Services/Food	Yes	Yes
Energy	Yes	Yes
Grounds	Yes	No
Purchasing	Yes	No
Transportation	Yes	No
Waste	Yes	Yes
Water	Yes	No
Diversity and Affordability	Yes	Yes
Health, Wellbeing and Work	Yes	Yes

Investment	No	No
Other	No	No

A brief description of the plan(s) to advance sustainability in Curriculum:

Villanova Center for Energy and Environmental Education under the College of Liberal Arts and Science is charged with "foster interdisciplinary education, research, and partnerships across the university that will enhance the learning opportunities of students in the broadly defined areas of environment, energy, sustainability, and climate." In an effort to increase sustainability in the curriculum the center is organizing the first sustainability faculty workshop to educate interested faculty on how to incorporate sustainability into their curriculum.

For more information on the Center visit their website

<https://www1.villanova.edu/villanova/artsci/vce3.html>

The measurable objectives, strategies and timeframes included in the Curriculum plan(s):

The Villanova Center for Energy and Environmental Education does not have a formalized goal for curriculum, though the Center will be tracking sustainable course development.

Accountable parties, offices or departments for the Curriculum plan(s):

The College of Arts and Sciences founded and funds the Villanova Center for Energy and Environmental Education. The Center's chairs are reasonable for fulfilling the mission.

<https://www1.villanova.edu/villanova/artsci/vce3/About.html>

A brief description of the plan(s) to advance sustainability in Research (or other scholarship):

Villanova Center for Energy and Environmental Education under the College of Liberal Arts and Science is charged with "foster interdisciplinary education, research, and partnerships across the university that will enhance the learning opportunities of students in the broadly defined areas of environment, energy, sustainability, and climate." In an effort to increase sustainability in the curriculum the center is organizing the first sustainability faculty workshop to educate interested faculty on how to incorporate sustainability into their curriculum.

The Villanova Center for Energy and Environmental Education is dedicated to "facilitating interdisciplinary teaching and research on environmental, energy, climate, and sustainability issues, integrating scientific, social, economic, and political aspects in meaningful ways."

For more information on the Center visit their website

<https://www1.villanova.edu/villanova/artsci/vce3.html>

The measurable objectives, strategies and timeframes included in the Research plan(s):

Accountable parties, offices or departments for the Research plan(s):

The College of Arts and Science founded and funds the the Villanova Center for Energy and Environmental Education. The Center's chairs are responsible for fulfilling the mission.

For more information, visit the Center's website

<https://www1.villanova.edu/villanova/artsci/vce3/About.html>

A brief description of the plan(s) to advance Campus Engagement around sustainability:

Starting in the summer of 2013, Villanova developed a Sustainability Newsletter that is posted on the sustainability website, sent out in the daily email, and to the sustainability email list. The sustainability email list is a compilation of faculty, staff and students interested in learning more about campus sustainability efforts. Anyone can request to be added to the email list and signups are available at any sustainability event.

The measurable objectives, strategies and timeframes included in the Campus Engagement plan:

We hope to double the email list every year for the next three years, then grow by a quarter every year there after. Through google analytics we can see how many times the sustainability newsletter is viewed. over the next year we would like to see viewership double.

Accountable parties, offices or departments for the Campus Engagement plan(s):

The sustainability manager is responsible for creating the newsletter and managing the sustainability email list.

A brief description of the plan(s) to advance Public Engagement around sustainability:

The measurable objectives, strategies and timeframes included in the Public Engagement plan(s):

Accountable parties, offices or departments for the Public Engagement plan(s):

A brief description of the plan(s) to advance sustainability in Air and Climate:

In 2007, Villanova signed the Presidents Climate Commitment to achieve climate neutrality by 2050. In response to signing the Climate Commitment, Villanova completed a climate action plan in 2010, outlining our path to climate neutrality. To achieve climate neutrality, Villanova has assessed our annual carbon emissions and identified areas for reduction, which are represented in our Climate Action Plan. Areas for emission reduction include our chiller plant, boiler, heating infrastructure, end use energy consumption and more. In addition to reducing campus emissions, Villanova will assess the purchase of offsets.

Review our full climate action plan for more details

<http://www1.villanova.edu/content/dam/villanova/sustainability/CAP%202010.pdf>

The measurable objectives, strategies and timeframes included in the Air and Climate plan(s):

Villanova has pledged to reduce greenhouse gas emissions by 24% by 2025, 30% by 2030, and 100% by 2050.

Accountable parties, offices or departments for the Air and Climate plan(s):

Villanova's sustainability manager is overseeing the Universities progress towards climate neutrality and is responsible for meeting our target goals.

A brief description of the plan(s) to advance sustainability in Buildings:

Every new building or major renovation must achieve LEED certification, as stated in the Climate Action Plan. Since 2008 Villanova has lived up to that requirement.

Please see the Climate Action Plan for more information

<http://www1.villanova.edu/content/dam/villanova/sustainability/CAP%202010.pdf>

The measurable objectives, strategies and timeframes included in the Buildings plan(s):

We are able to measure our success by the number of LEED buildings on campus, currently we have five LEED buildings on campus for the 5 new buildings and major renovations that have happened since we signed the presidents Climate Commitment.

Accountable parties, offices or departments for the Buildings plan(s):

The facilities department is responsible for ensuring all new buildings and major renovations apply for and achieve LEED certification.

A brief description of the plan(s) to advance sustainability in Dining Services/Food:

Dining Services is committed to sustainability in all areas of their operation and have put into place a number of programs, including: purchasing local food; purchasing fair trade coffee, tea, bananas, sugar, agave and chocolate for all dining locations; pre-consumer composting; participate in a local CSA; follow Monterey Bay Aquarium Seafood Watch; and participate in the Lean Path waste tracking and reduction system. In the future dining looks to expand these programs and look to new programs to further sustainable operations, including: environmentally friendly disposables for catering; marketing campaign to reduce plastic bottle usage (this past summer dining installed 6 hydration stations around campus to encourage better behavior); hire a student dining sustainability coordinator; and post consumer composting in one or two locations.

The measurable objectives, strategies and timeframes included in the Dining Services/Food plan(s):

Measurable objectives include:

- local food purchasing, goal is 30% by 2015
- compost vs. waster per location
- reduce back of the house food waste through the LEAN Path program
- reduce bottle water purchases
- bring composting to our catering operations

Accountable parties, offices or departments for the Dining Services/Food plan(s):

Villanova Dining Services is responsible.

A brief description of the plan(s) to advance sustainability in Energy:

As part of the Presidents Climate Commitment, Villanova has outlined an energy use reduction plan in our Climate Action Plan. Areas Villanova looks to address energy use includes: chiller plant, boiler, heating infrastructure, end use energy consumption and more. By reducing our energy use we in turn reduce our carbon emissions.

The measurable objectives, strategies and timeframes included in the Energy plan(s):

Our Climate Action Plan has a timeline for projects and energy savings for the next few years. We have created an energy fund to pay for these projects, all measurable savings will be returned to the fund.

Accountable parties, offices or departments for the Energy plan(s):

The facilities department is responsible for this plan, specifically the sustainability manager is in charge of keeping up with the plans progress.

A brief description of the plan(s) to advance sustainability in Grounds:

Stormwater Management is written into the University's master plan as part of our Sustainability initiatives. A number of stormwater projects are listed in the master plan, including bio-filtration traffic islands, connecting stormwater detention basins to the on campus wetlands, increasing pervious concrete and asphalt around campus, and installing a green roof on the engineering building.

The measurable objectives, strategies and timeframes included in the Grounds plan(s):

Accountable parties, offices or departments for the Grounds plan(s):

The Villanova Urban Stormwater Partnership has implemented almost all of the projects listed in the University master plan, as well as a number of others around campus.

A brief description of the plan(s) to advance sustainability in Purchasing:

With every new RFP Villanova sends out, it includes the following green purchasing guidelines:

Green Purchasing:

The University has adopted a Green Purchasing Policy. The goal of this policy is that Villanova will strive to balance environmental and fiscal responsibilities in making green purchasing decisions. We will purchase products with the highest percentage of recycled content available provided that the products meet acceptable use and performance standards. In addition, Villanova will strive to purchase materials that are:

- Durable
- Non-toxic or minimally toxic, preferably biodegradable
- Highly energy efficient
- Recyclable, but if not recyclable, may be disposed of safely
- Made from raw materials that have been obtained in an environmentally sound, sustainable manner
- Manufactured in an environmentally sound manner
- Causes minimal or no environmental damage during normal use or maintenance
- Shipped with minimal packaging (consistent with care of the product), preferably made of recycled or recyclable materials.

The measurable objectives, strategies and timeframes included in the Purchasing plan(s):

Currently there are no measurable objectives for increasing sustainable purchasing.

Accountable parties, offices or departments for the Purchasing plan(s):

The purchasing department is responsible for including Villanova's Green Purchasing guidelines in all RFPs.

A brief description of the plan(s) to advance sustainability in Transportation:

The Presidents Environmental Sustainability Committee has a Transportation subcommittee, who have developed a transportation survey to assess our current transportation habits and the campus communities interest in alternative transportation options. The student survey was sent out in April 2014, and the results are being tabulated. Faculty and staff will be surveyed in the Fall. Through this survey we will be able to better assess where the University stands with current transportation habits and how best to improve those habits in the future.

The measurable objectives, strategies and timeframes included in the Transportation plan(s):

Over the summer (2014) the Transportation subcommittee will review the results from the student survey and identify areas for improvement.

Accountable parties, offices or departments for the Transportation plan(s):

Presidents Environmental Sustainability Committee: Transportation Subcommittee.

A brief description of the plan(s) to advance sustainability in Waste:

Recently, the University signed a new contract for construction waste disposal. Previously, our construction waste was being sent to the landfill, but now with our new contract, waste is being diverted to a recycling facility where 85% of the waste is recycled. Additionally, Villanova is working to expand the composting program to include post consumer composting and event composting.

The measurable objectives, strategies and timeframes included in the Waste plan(s):

Villanova hopes to reach 40% diversion rate by 2020, in 2013 we diverted 35% of waste from the landfill.

Accountable parties, offices or departments for the Waste plan(s):

Villanova's recycling coordinator is responsible for increasing our waste diversion rate.

A brief description of the plan(s) to advance sustainability in Water:

As stated in the University master plan, new building on campus must be designed to LEED standards and as a result are expected to save on water usage. For existing buildings, the master plan notes that water-conservation plumbing fixtures are being phased in throughout campus and buildings are renovated, or fixtures break.

The measurable objectives, strategies and timeframes included in the Water plan(s):

Accountable parties, offices or departments for the Water plan(s):

Facilities management is tasked with implementing all of the physical and operational items within the master plan.

A brief description of the plan(s) to advance Diversity and Affordability:

Villanova is currently updating their diversity plan to include more up to date goals. We would like to increase enrollment for students of color, focusing on Black and Latino men who are currently underrepresented in higher education.

The measurable objectives, strategies and timeframes included in the Diversity and Affordability plan(s):

There are not current measurable objectives for this plan, but there will be once the plan has been fully updated.

Accountable parties, offices or departments for the Diversity and Affordability plan(s):

Villanova's Center for Multicultural Affairs

A brief description of the plan(s) to advance sustainability in Health, Wellbeing and Work:

In part because of the new health care law, Villanova has put into place a health and wellness program for all employees. The program encourages employees to complete a health assessment annually, as well as other annual check ups. Additionally personal health advisers are available to all employees for health and wellness questions.

The measurable objectives, strategies and timeframes included in the Health, Wellbeing and Work plan(s):

The 2012-2013 academic year was the first year of our health and wellness program. Employees were encouraged to participate in an annual screening for a discount on their health care costs. This gave Villanova a good sense of where their employees were on a health scale. Now this year, 2014-2015, employees are encouraged to take the annual screening, as well as participate in other healthy initiatives to improve Villanova's health numbers.

Accountable parties, offices or departments for the Health, Wellbeing and Work plan(s):

Human Resources runs the health and wellness program.

A brief description of the plan(s) to advance sustainability in Investment:

The measurable objectives, strategies and timeframes included in the Investment plan(s):

Accountable parties, offices or departments for the Investment plan(s):

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:

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

No

A brief description of how the institution's strategic plan or equivalent guiding document addresses sustainability:

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

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Currently, staff are not represented on any of the 12 Board committees. These are 5 Board committees that are only open to Trustees, they include: Executive Committee, Executive Compensation, Audit & Risk, Finance, Trustee Committee.

"---" 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)?:

No

A brief description of the mechanisms through which students have an avenue to participate in one or more governance bodies:

Students elected to student government are given the opportunity to serve on the Board committees.

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:

10 student representatives from student government are represented on 5 of the 12 Board committees. Those committees include: Academic Affairs, Athletics, Investment, Physical Facilities, and Student Life. The students are elected through student government at the start of the academic year (September) and serve the academic year till May. The students representatives are given voting rights for their respective committee.

Do students have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	---
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	---
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	---
Communications processes and transparency practices	---
Prioritization of programs and projects	---

A brief description of the formal student role in regard to each area indicated, including examples from the previous three years:

Through their committee involvement, students are able to vote on key issues regarding physical facilities, and new policies, programs or initiatives regarding academic affairs, athletics, investments and student life.

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)?:

No

A brief description of the mechanisms through which all faculty (including adjunct faculty) have an avenue to participate in one or more governance bodies:

Only tenured faculty are eligible to serve on the Board Committees.

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:

14 Tenure faculty members are recommended by the Committee on Faculty to the University President for 7 out of 12 Board Committees. Those committees include: Academic Affairs, Athletics, Investment, Physical Facilities, Student Life, University Advancement, and University Communication. Faculty membership lasts a full calendar year and are allowed to serve for more than one consecutive year.

Faculty representatives are given voting rights for their respective committee.

Do faculty have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	---
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	---
Communications processes and transparency practices	Yes
Prioritization of programs and projects	---

A brief description of the formal faculty role in regard to each area indicated, including examples from the previous three years:

Through their committee involvement, faculty are able to vote on key issues regarding physical facilities, and new policies, programs or initiatives regarding academic affairs, athletics, investments and student life, advancement and communication. The University Advancement committee involves making strategic and longer-term planning decisions for the University. Additionally, the University Communications committee makes decisions on communication processes and transparency for the University.

The website URL where information about the institution's governance structure is available:

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

Liesel Schwarz
Sustainability Manager
Facilities

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:

Campus diversity office is represented through the Center for Multicultural Affairs, which operates within the Division of Student Life. There are two governing officers who work to assess and address diversity and equity across the University. Below is our Diversity Statement:

"Villanova University, as a Catholic Augustinian institution of higher education, recognizes diversity as an integral component of the teaching and learning experience and as an essential element of the ongoing intellectual, social and spiritual development of every member of the Villanova community. Accordingly, Villanova University will be a diverse community. We commit ourselves to cultivating an academic environment marked by genuine curiosity about different perspectives, ardent receptivity to knowledge generated through intercultural connections and a genuine sensitivity to the variety of human experiences marked by domestic and global differences."

The full-time equivalent of people employed in the diversity and equity office:

2

The website URL where information about the diversity and equity committee, office and/or officer is available:

<http://www1.villanova.edu/villanova/diversity.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:

Events include but are not limited to:

Freedom School: In memory of Dr. Martin Luther King Jr, is an opportunity to talk about the social injustice we see in the world today.

MLK Day of Service: The purpose of the day is to continue the spirit of servant-hood. The focus is on the intimate relationship of serving among peers. The goal is for students to commit to service not for the act performed but for the shared experience and new found compassion/knowledge of social issues.

Other key programs outside the Center for Multicultural Affairs but within the Division of Student Life include:

LEVEL: works to build integration for those who are differently-abled, and raise awareness of their challenges, and how to better integrate them in daily activities.

Other events: LGBT Awareness Week, Special Olympics, World Religion Day and Villanova One Book.

The Center for Multicultural Affairs organizes a speaker series every year to address different conversations on diversity. Speakers from last years Inclusive Excellence Speaker Series included:

[STARS Reporting Tool](#) | [AASHE](#)

Dr. William Smith from University of Utah on "The Academic Side of Diversity and Inclusion"

Dr. Patricia Gurin from University of Michigan on "Engaging Diversity: Its Importance in the 21st Century Education"

Dr. Joann Moody on "The importance of Recruiting and Retaining a Diverse Faculty"

Additionally, if a specific group would like targeted diversity training they can request it from the Center.

The website URL where information about the cultural competence trainings is available:

<http://www1.villanova.edu/villanova/diversity/inclusive.html>

Assessing Diversity and Equity

Responsible Party

Stephen Sheridan

Director for Accountability, Accreditation and Assessment Services
Office of Planning and Institutional Research

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) :

In order to gain deeper insight into the perceptions of Villanova faculty and staff, Father Peter M. Donohue, O.S.A., President, commissioned the Office of Planning and Institutional Research (OPIR) to develop and conduct a Community Climate Survey at the beginning of his Presidency in 2006. Five years later, this survey was administered once again to understand the perceptions of Villanova employees and to see how perceptions may have changed since December 2006. The Community Climate Survey was distributed to all Villanova faculty and staff on November 9, 2011 and data collection proceeded through the first of the year with closing of the survey on January 31, 2012. Within the survey, there were 13 questions that specifically addressed employee perceptions on diversity and equity.

Has the institution assessed student diversity and educational equity?:

Yes

A brief description of the student diversity and educational equity assessment(s):

On college and university campuses, diversity efforts are often centered in just one office. At Villanova, we believe diversity should be mindfully addressed in all areas of campus and is the responsibility of all members of our community. As globalization, pluralism and domestic diversity become part of regular conversations in corporations, governments and schools, it is clear that these topics directly affect how we function as a dynamic contemporary university as well. The Diversity Blueprint (2006) represents a strategic response to this challenge. Villanova University has clearly indicated our commitment to diversity. We see diversity as an integral component of our mission, vision, values and goals. Among the critical imperatives highlighted in the Diversity Blueprint, the following objective is included: Villanova University will recruit, retain and graduate a diverse student body that will be reflective of the diversity in the United States. In addition to the Office of Enrollment Management continuing its campaign to recruit a diverse student body, issues of retention will be systematically identified and addressed by appropriate divisions and offices. The measurable outcome for this objective was that within the subsequent 5 years, 20% of the undergraduate population that Villanova recruits, enrolls and graduates will be racially, ethnically and culturally diverse. These metrics have since been tracked and analyzed collectively by the Center for Multicultural Affairs, Enrollment Management, and the Office of Planning and Institutional Research. On January 11, 2012, a 5-Year Evaluation Conference was convened to review progress of the Diversity Blueprint. While the University accomplished its goals of recruiting and enrolling racially, ethnically and culturally diverse students (enrolling 20.5 Domestic Multicultural students, increasing to 22.8% including international). However, the University found itself under-performing in the areas of graduation and tracking retention. Since, Enrollment Management has stepped up its efforts by creating the position of Director of Student Retention Services and convening a Retention Council that includes all University stakeholders with respect to retaining and graduating students on time. Additionally, the Center of Multicultural Affairs is in the process of producing a new iteration of the Diversity Blueprint to align with the Villanova's current Strategic Plan: Igniting the Heart. Inspiring the Mind. Illuminating the Spirit.

Has the institution assessed employee diversity and employment equity?:

Yes

A brief description of the employee diversity and employment equity assessment(s):

Each year Human Resources produces an equal employment opportunity report that measures our hiring and retention in terms of diversity across a wide range of government-defined job categories. The report measures racial and gender information. The report shows year-over-year differences in our hiring and retention and compares our employee make-up against a market of available employees in each racial, gender and veteran groups. When we find that areas do not meet "expected" numbers based on demographics we readjust our outreach to those under-represented groups. Because of the sensitivity of the information contained in the report, it is not published but is used internally to adjust outreach to under-represented groups. The reports are available to federal government agencies upon request.

Has the institution assessed diversity and equity in terms of governance and public engagement?:

Yes

A brief description of the governance and public engagement assessment(s):

While not formally assessed, the Assistant Vice President for Multicultural Affairs serves as the Villanova's Chief Diversity Officer and reports to the Office of the President on matters of diversity and maintaining inclusive excellence throughout the University. This is achieved through the Assistant Vice President for Multicultural Affairs serving on all key governance committees. Through her service to such committees, she is able to assess 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. The Assistant Vice President then relays her findings to the President.

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

Support for Underrepresented Groups

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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.

Submission Note:

The University has not been faced with the need to provide special accommodations for transgender or transiting students. We do provide excellent accommodating for students who present with physical limitations and would be willing to do the same for students with other requirements.

"---" 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:

The Center for Multicultural Affairs offers a number of programs to help all students receive an inclusive educational experience founded on Augustinian Principles. Programs the Center offers includes:

A.C.T.I.V.E. stands for Advising, Counseling, Tutoring, Information to enhance the Villanova Experience. Targeting students with a “cultural” population or NOS (Not otherwise stated), but any Villanova student is welcome to join. This program provides academic tutoring, counseling and course advising for students who are overwhelmed by all the college offers. ACTIVE is for the first two years of a students college career.

For third and fourth year students, ENACT helps them prepare for graduation and life after college. ENACT assists students with Internships, research assistantship, personal and professional development.

Project Red provides Freshman who request it, a upper class student mentor who have excelled academically and socially. This program helps first-year students adjust academically and socially, as well as help them develop leadership and accountability skills.

WISE Male Mentoring, or Working to be Informed, Studious and Engaged exists to provide resources, empowerment, and social skill development for Villanova males students. Through mentorship, workshops and other programs/events WISE hopes to help male students achieve academic success and become continual learners and professionals after graduating from Villanova.

The website URL where more information about the support programs for underrepresented groups is available:

<https://www1.villanova.edu/villanova/studentlife/multiculturalaffairs/services.html>

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:

Human Resources has a policy for campus community members who have discrimination concerns. All allegations of discrimination or harassment are submitted confidentially to the Complaint Officer (Associate Vice President of HR). In some instances a Review Board may be established to review any appeals of the decision made by the complaint officer. Depending on the severity of the discrimination, an informal resolution may be used to resolve the complaint. This includes counseling, support and advice for the victim.

Reports are filed through this site:

http://www1.villanova.edu/villanova/diversity/report_bias.html

In the 2014-2015 Student Handbook, under the section Community Policies on page 55, the same Villanova Non-Discrimination Policy is covered as well as the University's Non-Harassment Policy.

The website URL where more information about the institution's discrimination response policy, program and/or team is available:

http://www1.villanova.edu/villanova/hr/policies/university/discrimination_harassment.html

Does the institution offer housing options to accommodate the special needs of transgender and transitioning students?:

No

Does the institution produce a publicly accessible inventory of gender neutral bathrooms on campus?:

No

Support for Future Faculty Diversity

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

Villanova has a campus liaison for the Institute for Recruitment of Teachers (IRT). IRT helps students of color and other scholars committed to diversity, counsel them through the graduate school application process and advocate for sufficient funding for advanced studies. Our liaison helps to get Villanova students interested in the program so they can achieve their ambitions.

Additionally, the College of Engineering works diligently to increase the amount of women with the profession and the professoriate both within within the College and in general. It has achieve this through seeking out quality female candidates at professional conferences. Further, Villanova's College of Engineering has been granted three Professorships through the Clare Boothe Luce Program. Since its first grants in 1989 the Clare Boothe Luce Program (CBL) has become the single most significant source of private support for women in science, mathematics and engineering. Clare Boothe Luce, the widow of Henry R. Luce, was a playwright, journalist, U.S. Ambassador to Italy, and the first woman elected to Congress from Connecticut. In her bequest establishing this program, she sought "to encourage women to enter, study, graduate, and teach" in science, mathematics and engineering. Thus far, the program has supported more than 1900 women. The substantial professional development funds associated with each professorship provide flexibility and support rarely available to new faculty members.

The website URL where more information about the faculty diversity program(s) is available :

<http://www.andover.edu/SummerSessionOutreach/IFROTeachers/Pages/default.aspx>
STARS Reporting Tool | AASHE

Affordability and Access

Responsible Party

Stephen Sheridan

Director for Accountability, Accreditation and Assessment Services
Office of Planning and Institutional Research

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:

Villanova University is dedicated to providing students and parents with financial aid, including grants, scholarships, loans and student employment, as well as payment options to assist in meeting educational expenses. One way with which the University achieves this goal is through the Villanova University Grant program. For 2013-2014, Villanova University will fund more than \$86 million in financial assistance to undergraduate students. Of this total, more than \$64 million will be awarded through the need-based Villanova Grant program.

The O'Toole program is new to Villanova and very different from other programs. In partnership with Terry O'Toole, a Villanova Alum, each year, up to twelve students from the Newark NJ Archdiocese will be selected to participate in the O'Toole program. The program helps prepare students for college and provides funding for them to attend Villanova University. This is the first program to follow students through high school to higher education.

<https://www1.villanova.edu/villanova/media/pressreleases/2013/0523.html>

A brief description of any programs to equip the institution's faculty and staff to better serve students from low-income backgrounds:

Low-income students that otherwise qualify for the Academic Advancement Program or the A.C.T.I.V.E. Retention Program, both offered through the Center for Multicultural Affairs, receive free counseling and tutoring services. Often times, the individuals that oversee such services will reach out to faculty and staff on behalf of students to bridge better relationships with a collective vision toward helping students graduate.

A brief description of any programs to prepare students from low-income backgrounds for higher education:

The Academic Advancement Program (AAP) provides students of low income the support they need to successfully complete their college degree. The program includes a five-week pre college program to prepare them for freshman year. other services provided for AAP participants include:

- An office and staff to guide students in whatever course of study they may be enrolled;
- Counseling by qualified staff for reading, academic and personal issues;
- Peer counseling service from qualified fellow students for advice and suggestions for academic and personal life at the University;
- Tutorial service for most courses that may be presenting the student with difficulties;
- Financial aid counseling.

All services offered through AAP are free for eligible students

<https://www1.villanova.edu/villanova/studentlife/multiculturalaffairs/services/aap.html>

A brief description of the institution's scholarships for low-income students:

Villanova offers a number grants to need-based and/or underrepresented groups to be used towards tuition costs. These opportunities include:

- The Villanova/Coca-Cola First Generation Scholarship Program awards five partial scholarships per year to academically outstanding

undergraduates who are the first in their families to attend college, and demonstrate a financial need.

- The Goizueta Foundation Scholars Fund has been instituted for the purpose of providing need-based scholarship assistance to those who have extensive personal interest, involvement and experience in the Hispanic/Latino culture. This fund helps to cover part of the tuition costs.
- The Hovnanian Scholarship provides funding to undergraduate students of Armenian descent to attend Villanova University on a full-time basis.
- The St. Martin de Porres Grants are reserved for students who have grown up in the immediate Philadelphia and are members of the most underrepresented groups in undergraduate education, including (but not limited to) members of underrepresented racial and ethnic populations, students from economically disadvantaged backgrounds and students from families in which few or no members have attended college.
- The Denise McNair Memorial Scholarship provides full tuition for eight consecutive semesters to an entering freshman who is a U.S. citizen from a traditionally underrepresented population, has demonstrated outstanding academic achievement and is committed to family, religious faith, peace and justice.
- The Precision Castparts Corp (PCC) Scholarship and Support Program provides two scholarships a year to students from Archbishop McDevitt High School that fall into traditionally underrepresented categories: the four protected racial/ethnic groups, first generation or Pell Eligible. In addition to providing the students with the funds to attend Villanova University, all of the students have a paid internship on breaks and during the summer. Additionally, PCC provides the funds for one full graduate assistant to work with Sophomore retention efforts.

A brief description of any programs to guide parents of low-income students through the higher education experience:

Although not entirely focused toward parents of low income students, Villanova University holds approximately 40 "financial assistance nights" across the Delaware Valley to assist parents of potential Villanova students through the financial assistance paperwork and process in general.

A brief description of any targeted outreach to recruit students from low-income backgrounds:

The Center for Multicultural Affairs College Day is an opportunity for junior high school students and high schools throughout the country to visit Villanova and get the college application wheels turning. The day would typically consist of: a student panel discussion; a tour of the University; lunch in one of the University's main dining halls; classroom visits; a financial aid presentation; and, an admission presentation.

College Weekend is a rare opportunity given to underrepresented students to gain full exposure to the college experience. This interactive program is for three days and two nights. During this weekend high school juniors (spring) and seniors (fall) will reside with current students while partaking in the academic side of college which includes SAT prep classes, essay writing classes, and financial aid/admissions presentations and the social side which includes a cultural program on campus such as Diwali, Heritage, or MSL Night.

A brief description of other admissions policies or programs to make the institution accessible and affordable to low-income students:

A brief description of other financial aid policies or programs to make the institution accessible and affordable to

low-income students:

The Presidential Scholarship is a renewable, merit-based award covering full tuition, room, board (up to 19 meals-per-week plan), general fee, and the cost of textbooks for eight consecutive semesters. Presidential Scholars are transformational leaders both on and off campus who have demonstrated a love of learning and a commitment to enhancing both their local and broader civic communities. Villanova Presidential Scholars represent diverse intellectual, social, ethnic, and economic backgrounds. Each year, of the 28 Presidential Scholarships, 6 scholarships are reserved for candidates from historically underrepresented groups, first in their family to pursue a college education, and low income (generally Pell Grant eligible) students.

A brief description of other policies and programs to make the institution accessible and affordable to low-income students not covered above:

Does the institution have policies and programs in place to support non-traditional students?:

Yes

A brief description of any scholarships provided specifically for part-time students:

Villanova provides a list of scholarships provided specifically for part-time students (

<http://www1.villanova.edu/villanova/parttime/scholarships.html>

). Included among them is the Bisk Education Endowed Scholarship.

Established in 2008 by Bisk Education Inc., the Bisk Education Endowed Scholarship seeks to recognize Part-Time and Continuing Studies students who demonstrate both academic potential and financial need. To qualify, students must be matriculated in a Part-Time Studies degree program (non-matriculated, visiting, and post-graduate students are ineligible). Part-Time Studies candidates must also demonstrate a cumulative Villanova GPA of 3.0 or higher, and be registered for six or more credit hours per semester. Scholarship aspirants must also have demonstrated financial need, as determined by the Office of Financial Assistance and based on Federal guidelines.

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:

Villanova University offers a Bachelor of Interdisciplinary Studies (BIS) in Leadership Studies at Montgomery County Community College's West Campus in Pottstown, PA.

A brief description of other policies and programs to support non-traditional students:

In May 2014, Villanova University announced the creation of the College of Professional Studies (CPS)—the first new College at the University in 50 years. CPS provides academically rigorous undergraduate degree and non-degree programming—both on campus and online—for the adult learner and working professional.

CPS continues Villanova's long-standing tradition of service to adult learners and will expand Villanova's breadth of academic offerings by providing ever greater options and flexibility. It will house and continue to advance the programs of the University's Part Time and Continuing Studies area.

Part-Time Studies: CPS offers a part-time evening program for adult learners through the Office of Part-Time Studies with more than 15 bachelor's degree and certificate programs.

Continuing Studies: CPS offers non-credit professional education, training and development programs for adult learners through the Office of Continuing Studies. Choose from more than 20 on-campus and online programs.

Students within the College of Professional Studies has identical access to all of the same academic support and campus services as full-time, "traditional" students.

Does the institution wish to pursue Part 2 of this credit (accessibility and affordability indicators)?:

Yes

Indicators that the institution is accessible and affordable to low-income students::

	Percentage (0-100)
The percentage of entering students that are low-income	12
The graduation/success rate for low-income students	87.10
The percentage of student financial need met, on average	80.40
The percentage of students graduating with no interest-bearing student loan debt	48

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:

15.50

The website URL where information about the institution's affordability and access programs is available:

http://www1.villanova.edu/villanova/enroll/finaid/scholarships_grants.html

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

Liesel Schwarz
Sustainability Manager
Facilities

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.

Number of employees:

2,731

Number of staff and faculty covered by sustainable compensation standards, guidelines, or policies; and/or collective bargaining agreements:

2,731

Does the institution have employees of contractors working on-site as part of regular and ongoing campus operations?:

Yes

Number of employees of contractors working on campus:

14

Number of employees of contractors covered by sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements:

3

A brief description of the sustainable compensation standards, guidelines, or policies; and/or collective bargaining agreements covering staff, faculty and/or employees of contractors:

Just wage – a salary that will allow workers to at least earn more than the poverty level in their city; should be commensurate with other employers in similar industries; and recognizes the dignity and respect that should be accorded to all workers. Since a living wage covers only the very basic necessities and doesn't account for savings or emergencies, it is only one small step towards a truly just wage. Factors to consider include local economic conditions, especially the cost of living. It also includes current and potential employee's benefits, including health care, child care, long and short term disability, vacation time or Paid Time Off (PTO), retirement, etc. Many religious traditions and political philosophies relate the concept of just wages to a radically fairer redistribution of wealth.

Employees of contractors includes three custodial employees and 11 bookstore employees. Custodial employees are bound by contract to provide a just wage. Although the bookstore employees are not bound by contract, the contracting company was chosen because of their good track record in employee compensation and respect.

Does the institution wish to pursue Part 2 of this credit (assessing employee compensation)?:

Yes

Number of staff and faculty that receive sustainable compensation:

2,731

Number of employees of contractors that receive sustainable compensation:

14

A brief description of the standard(s) against which compensation was assessed:

Just wage – a salary that will allow workers to at least earn more than the poverty level in their city; should be commensurate with other employers in similar industries; and recognizes the dignity and respect that should be accorded to all workers. Since a living wage covers only the very basic necessities and doesn't account for savings or emergencies, it is only one small step towards a truly just wage. Factors to consider include local economic conditions, especially the cost of living. It also includes current and potential employee's benefits, including health care, child care, long and short term disability, vacation time or Paid Time Off (PTO), retirement, etc. Many religious traditions and political philosophies relate the concept of just wages to a radically fairer redistribution of wealth.

Currently all of our contracted employees are paid a sustainable wage based on the guidelines of Just wage

A brief description of the compensation (wages and benefits) provided to the institution's lowest paid regular, full-time employees:

We do not pay any regular FT or PT employee less than \$10.50 per hour. All FT employees are eligible for a full benefits package

A brief description of the compensation (wages and benefits) provided to the institution's lowest paid regular, part-time employees:

We do not pay any regular FT or PT employee less than \$10.50 per hour. PT employees working 1000 hour or more per year are eligible for retirement, holiday, sick and vacation time.

A brief description of the compensation (wages and benefits) provided to the institution's lowest paid temporary (non-regular) staff:

The lowest wage for temporary entry-level service positions is \$10.10 per hour. They do not receive benefits. Temporary employees are restricted to 90 days or less, otherwise they are considered regular.

A brief description of the compensation (wages and benefits) provided to the institution's lowest paid temporary (non-regular, adjunct or contingent) faculty:

Adjunct faculty are those who teach 3 or less courses a year. The lowest rate is a first time professor without a PhD at \$1,200 per credit. If that person is just teaching a lab then it is \$1,100 per credit. These employees do not receive benefits because their hours do not add up to the federal minimum of 1,500 hours.

For Temporary full time faculty who teach 3 or more courses a year are considered eligible for health benefits. Lowest starting salary is \$49,500.

A brief description of the compensation (wages and benefits) provided to the institution's lowest paid student employees (graduate and/or undergraduate, as applicable):

Student wages are classified by job level and how long they have worked for that department. Starting salary for a new department can be as low as \$7.25 and has high as \$9.30 (\$11.40 for grad students). Since the students are part time workers they do not get benefits.

The local legal minimum hourly wage for regular employees:

7.25 US/Canadian \$

Does the institution have an on-site child care facility, partner with a local facility, and/or provide subsidies or financial support to help meet the child care needs of faculty and staff?:

Yes

Does the institution offer a socially responsible investment option for retirement plans?:

Yes

The website URL where information about the institution's sustainable compensation policies and practices is available:

Assessing Employee Satisfaction

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

100

A brief description of the institution's methodology for evaluating employee satisfaction and engagement:

Once every 5 years a campus climate survey is sent out to all faculty and staff. The surveys are done on paper so as to ensure privacy of response. The campus climate survey has seven sections: communication, decision making, leadership, sense of community, diversity, satisfaction, and trust & respect. Although, many of these sections have some relation to employee satisfaction, the 'satisfaction' category specifically asks about ones satisfaction with their job, supervisor, salary, benefits, work load, skills, and responsibility, among others.

A brief description of the mechanism(s) by which the institution addresses issues raised by the evaluation (including examples from the previous three years):

Once the survey has been completed, reports are sent to all department heads, as well as the President to review and address issues that arise. After the last survey in 2011, the president addressed employee dissatisfaction with Christmas break, summer hours, child care assistance, public transportation benefits, communication with his office and the development of a staff council to provide regular feed back on staff issues and concerns.

The year the employee satisfaction and engagement evaluation was last administered:

2,011

The website URL where information about the institution's employee satisfaction and engagement assessment is available:

Wellness Program

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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
-

"---" 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):

For Villanova Faculty and Staff the following program has been made available to them: Health Advocate, the nations’ leading healthcare advocacy and assistance company, offers two valuable services. The Healthcare Help service features personalized help to resolve clinical and insurance-related issues, and the EAP+Work/Life program offers short-term counseling and support for personal, family and work issues. Health Advocate is available 24/7, and ensures that all personal information is kept confidential and private.

The University counseling center also provides the following resources to faculty staff and students: Individual counseling, educational workshops, and consultation.

The website URL where information about the institution's wellness program(s) is available:

Workplace Health and Safety

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

full- time equivalent includes all full time employees and half part time employees.

"---" 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	44	52
Full-time equivalent of employees	2,731	2,242

Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	Jan. 1, 2013	Dec. 31, 2013
Baseline Year	Jan. 1, 2005	Dec. 31, 2005

A brief description of when and why the workplace health and safety baseline was adopted:

2005 was the earliest year with the most accurate data is available.

A brief description of the institution’s workplace health and safety initiatives:

Every year OSHA safety training is conducted for custodial, grounds, mail room, maintenance and mold remediation. Additionally, hearing tests, training and ear plugs are provided on a yearly basis, we are putting in new fall protection systems, and we supply personal protective equipment such as steel toe boots, non-slip shoes, gloves and ear plugs to employees.

The website URL where information about the institution’s workplace health and safety initiatives is available:

<http://www1.villanova.edu/villanova/fmo/ehs/services.html>

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

Liesel Schwarz
Sustainability Manager
Facilities

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:

The University's investment policies call for the University to exercise its rights as a shareholder to vote proxies in a socially responsible manner. To that end, the Committee on Social Responsibility Proxy Votes was established. The Committee is appointed by the President and chaired by the Vice President for Finance.

The Committee meets as needed. The Controller's Office will be responsible for distributing the proxies of a socially responsible nature to the Committee for voting. Each vote will be determined by a majority of Committee members. The Vice President for Finance has final authority, as assigned by the President on each vote. The Committee prepares annually a report on its proxy votes for submission to the President

Members of the CIR, including affiliations and role (e.g. student, faculty, alumni):

The Committee is appointed by the President and chaired by the Vice President for Finance. The Committee is comprised of up to 9 members, including one student nominee from the Student Government Association; one faculty member nominated by the Faculty Congress; one member from the College of Arts and Sciences, Business, Engineering, Law and Nursing nominated by each respective dean; and one other individual at large, designated by the President. The Controller will serve as an ex officio member.

Examples of CIR actions during the previous three years:

No examples were available for disclosure.

The website URL where information about the CIR is available:

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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

Submission Note:

Although Villanova does not have a socially responsible mutual fund, we do have a student group that invests in socially responsible mutual funds with positive screens. Over the past 4 years, total money held in these funds were as follows: FY11 = \$470,632, FY12 = \$434,643, FY13 = \$525,596, FY14- \$231,635 (these investments are not apart of Villanova's Endowment). It is also worth noting that Villanova was the first socially responsible student managed fund in the country.

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

Total value of the investment pool:

501,483,000 US/Canadian \$

Value of holdings in each of the following categories::

	Value of Holdings
Sustainable industries (e.g. renewable energy or sustainable forestry)	736,911 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	0 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:

The University has investments in a few limited partnerships that have holdings in sustainable industries.

Does the institution have a publicly available sustainable investment policy?:

No

A copy of the sustainable investment policy:

The sustainable investment policy:

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:

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:

The University, through its Committee on Socially Responsible Proxy Voting, votes on proxy ballot issues related to social responsibility, for its separately-managed investment accounts. The Committee, which is comprised of faculty, student, and staff representatives, conducts its activities in accordance with the investment guidelines issued by the United States Conference of Catholic Bishops.

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?:

No

A brief description of the investor networks and/or collaborations:

The website URL where information about the institution's sustainable investment efforts is available:

Investment Disclosure

Responsible Party

Liesel Schwarz
Sustainability Manager
Facilities

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:

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

Innovation 1

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.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
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.

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

Innovation 2

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.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
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.

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

Innovation 3

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.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
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.

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Innovation 4

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.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
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.

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