

Stevens Institute of Technology STARS REPORT

Preview Provisional Rating: Silver **Provisional Score:** 64.72

Online Report: Stevens Institute of Technology

STARS Version: 2.2

This is a preview of the final STARS Report.

The final version of the report will be available upon publication, at which time the final rating will be awarded and the data contained in the report will become publicly available on the STARS website.

Wait, Wait! Don't Print Me!

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Moving Around in the Document

- Summary of Results Links Headings in the Summary of Results are links, which can be clicked to take you
 directly to the referenced page.
- **Bookmarks** You can jump to segments of the document quickly and easily using the Bookmarks provided in the document. To access the Bookmarks, click on the "Bookmarks" tab on the left side of the Adobe Reader window it's the icon that looks like a sheet of paper with a blue ribbon hanging over the upper left corner.
- Pages You can quickly go to any page listed in the Table of Contents simply by typing the page number into the box that displays the current page number in the Adobe Reader window, and pressing "Return/Enter."

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About STARS

The Sustainability Tracking, Assessment & Rating System (STARS[®]) is a transparent, self-reporting framework for colleges and universities to gauge relative progress toward sustainability. STARS was developed by AASHE with broad participation from the higher education community.

STARS is designed to:

- Provide a framework for understanding sustainability in all sectors of higher education.
- Enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the campus sustainability community.
- Create incentives for continual improvement toward sustainability.
- Facilitate information sharing about higher education sustainability practices and performance.
- · Build a stronger, more diverse campus sustainability community.

STARS is intended to engage and recognize the full spectrum of colleges and universities—from community colleges to research universities, and from institutions just starting their sustainability programs to long-time campus sustainability leaders. STARS encompasses long-term sustainability goals for already high-achieving institutions as well as entry points of recognition for institutions that are taking first steps toward sustainability.

About AASHE

STARS is a program of AASHE, the Association for the Advancement of Sustainability in Higher Education. AASHE is a member-driven organization with a mission to empower higher education to lead the sustainability transformation. Learn more about AASHE.

Summary of Results

Provisional Score 64.72 **Provisional Rating:** Silver

Report Preface	
Introduction	0.00 / 0.00
Institutional Characteristics	0.00 / 0.00
Academics	
Curriculum	26.39 / 40.00
Research	15.00 / 18.00
Engagement	
Campus Engagement	11.25 / 21.00
Public Engagement	8.92 / 15.00
Operations	
Air & Climate	8.85 / 11.00
Buildings	1.12 / 8.00
Energy	5.14 / 10.00
Food & Dining	3.45 / 8.00
Grounds	2.00 / 3.00
Purchasing	4.30 / 6.00
Transportation	5.47 / 7.00
Waste	3.59 / 10.00
Water	6.00 / 6.00
Planning & Administration	
Coordination & Planning	7.38 / 9.00
Diversity & Affordability	7.23 / 10.00
Investment & Finance	1.50 / 6.00
Wellbeing & Work	2.77 / 7.00
Innovation & Leadership	
Innovation & Leadership	3.00 / 4.50

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.

Report Preface

Introduction

Points Claimed 0.00 **Points Available** 0.00

This section provides the opportunity for an institution to highlight points of distinction and upload an executive letter to accompany its STARS Report.

Credit	Points
	0.00 /
Executive Letter	Total adjusted for non-applicable credits
	Close 0.00 /
Points of Distinction	Total adjusted for non-applicable credits
	Close

Executive Letter

Provisional Score

0.00 /

Total adjusted for non-applicable credits

Close

Responsible Party

Robert Maffia
Vice President
Campus and Facilities Operations

Criteria

This section allows an institution to upload a letter from the institution's president, chancellor, or other high ranking executive. Typically written on official letterhead, the executive letter serves as an introduction or cover letter for the institution's STARS report. As such, the letter may include a description of the institution's commitment to sustainability, background about the institution, key achievements or highlights from the report, and/or goals for future submissions. The letter also serves as indicator of administrative support for sustainability and the STARS process. Institutions are expected to submit a new executive letter when there has been a change in leadership or the institution is submitting for a higher rating.

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

Executive cover letter:

SIT_-_STARS_Executive_Letter_2.13.20.pdf

Points of Distinction

Provisional Score

Responsible Party

0.00 /

Total adjusted for non-applicable credits

Close

Criteria

This optional section provides an opportunity for an institution to highlight up to three programs, initiatives, or accomplishments that best reflect its leadership for sustainability. Completing this section will help inform how AASHE publicizes the institution's STARS rating.

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

Institutional Characteristics

Points Claimed 0.00

Points Available 0.00

Institutional characteristics include data related to an institution's boundary (defining the campus for purposes of reporting), its operational characteristics (the context in which it operates) and its demographics and academic structure. This information provides valuable context for understanding and interpreting STARS data. The category also provides the opportunity for an institution to highlight points of distinction and upload an executive letter to accompany its STARS Report.

Some of the values reported in IC-2 and IC-3 are also required to pursue specific STARS credits. Such reporting fields may be populated from the data provided in the Institutional Characteristics section of the Reporting Tool.

Credit	Points
	0.00 /
Institutional Boundary	Total adjusted for non-applicable credits
	Close
	0.00 /
Operational Characteristics	Total adjusted for non-applicable credits
	Close
	0.00 /
Academics and Demographics	Total adjusted for non-applicable credits
	Close

Institutional Boundary

Provisional Score

Responsible Party

0.00 /

Total adjusted for non-applicable credits

Minghui Wang

EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND

EFFECTIVENESS

Office of the Provost

Close

Criteria

Each institution is expected to include its entire main campus when collecting data. Institutions may choose to include any other land holdings, facilities, farms, and satellite campuses, as long as the selected boundary is the same for each credit. If an institution finds it necessary to exclude a particular unit from its submission, the reason for excluding it must be provided in the appropriate reporting field.

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

Institution type:

Doctoral/Research

Institutional control:

Private non-profit

A brief description of the institution's main campus and other aspects of the institutional boundary used to complete this report:

The main (and only) campus is 55 acres, located in Hoboken, NJ. The institutional boundary for this report does not include the leased residence rooms that are off-campus in Hoboken, and it does not include Greek housing not owned by the University.

Which of the following features are present on campus and which are included within the institutional boundary?:

	Present?	Included?
Agricultural school	No	No
Medical school	No	No
Other professional school with labs or clinics (e.g. dental, nursing, pharmacy, public health, veterinary)	No	No
Museum	No	No
Satellite campus	No	No
Farm larger than 2 hectares or 5 acres	No	No
Agricultural experiment station larger than 2 hectares or 5 acres	No	No
Hospital	No	No

The rationale for excluding any features that are present from the institutional boundary:

Additional documentation to support the submission :

Operational Characteristics

Provisional Score

0.00 /

Total adjusted for non-applicable credits

Responsible Party

Minghui Wang

EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND

EFFECTIVENESS

Office of the Provost

Close

Criteria

Operational characteristics are variables that provide information about the context in which the institution operates. Report the most recent data available within the three years prior to the anticipated date of submission.

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

Endowment size:

224,000,000 US/Canadian \$

Total campus area:

55 Acres

Locale:

Mid-size city

IECC climate zone:

4 - Mixed

Gross floor area of building space:

1,529,692 Gross Square Feet

Floor area of laboratory space:

83,983 Square Feet

Floor area of healthcare space:

0 Square Feet

Floor area of other energy intensive space:

155,852 Square Feet

Additional documentation to support the submission :

Data source(s) and notes about the submission:

Laboratory space taken from FY19 submission to NSF.

Provisional Score

0.00 /

Total adjusted for non-applicable credits

Minghui Wang

EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost

Responsible Party

Close

Criteria

This section includes variables that provide information about the institution's academic programs, students, and employees. Report the most recent data available within the three years prior to the anticipated date of submission. Some population figures are used to calculate weighted campus user, a measurement of an institution's population that is adjusted to accommodate how intensively certain community members use the campus.

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

Number of academic divisions:

4

Number of academic departments (or the equivalent):

Number of students enrolled for credit:

8,170

Total number of employees:

1,202

Full-time equivalent student enrollment:

6.831

Full-time equivalent of students enrolled exclusively in distance education:

Full-time equivalent of employees:

1,000

Number of students resident on-site:

1.364

Number of employees resident on-site:

Number of other individuals resident on-site:

Weighted campus users, performance year:

5.806.75

Additional documentation to support the submission:

Data source(s) and notes about the submission:

Stevens Institute of Technology consists of three schools and one college: the Charles V. Schaefer, Jr. School of Engineering and Science (SES), the School of Business (Business), the School of Systems and Enterprises (SSE) and the College of Arts and Letters (CAL). The School of Business, SSE and CAL do not have specific academic department structures and were therefore counted as one academic department for the purposes of this report. The Schaefer School does have a specific academic department structure of nine departments, and therefore each department was individually counted.

Employee and student headcount and full-time equivalent data is from the Integrated Postsecondary Education Data System (IPEDS).

Academics

Curriculum

Points Claimed 26.39
Points Available 40.00

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	Points
Academic Courses	9.68 / 14.00
Learning Outcomes	3.51 / 8.00
Undergraduate Program	3.00 / 3.00
Graduate Program	3.00 / 3.00
Immersive Experience	2.00 / 2.00
Sustainability Literacy Assessment	2.00 / 4.00
Incentives for Developing Courses	0.00 / 2.00
Campus as a Living Laboratory	3.20 / 4.00

Academic Courses

Provisional Score	Responsible Party	
9.68 / 14.00	Minghui Wang EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost	

Criteria

Part 1. Sustainability course offerings

Institution offers sustainability course content as measured by the percentage of academic courses offered that are sustainability-focused or sustainability-inclusive (see Standards and Terms).

Part 2. Sustainability course offerings by department

Institution offers sustainability course content as measured by the percentage of academic departments(or the equivaler	ıt)
with sustainability course offerings.	

Required documentation

Institution must provide an inventory conducted during the previous three years to identify its sustainability course offerings and describe for current and prospective students how each course addresses sustainability. For each course, the inventory must include:

- The title, department (or equivalent), and level of the course (e.g., undergraduate or graduate).
- A brief course description or rationale explaining why the course is included that references sustainability, the interdependence of ecological and social/economic systems, or a sustainability challenge.
- An indication of whether the course qualifies as sustainability-focused or sustainability-inclusive (or equivalent terminology).

A course may be sustainability-focused or sustainability-inclusive; no course should be identified as both. Courses for which partial or incomplete information is provided may not be counted toward earning points for this credit. This credit does not include continuing education and extension courses, which are covered by the Continuing Education credit in Public Engagement.

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.

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

Figures required to calculate the percentage of courses offered by the institution that are sustainability course offerings:

	Undergraduate	Graduate
Total number of courses offered by the institution	475	716
Number of sustainability-focused courses offered	30	55
Number of sustainability-inclusive courses offered	23	48

Percentage of courses that are sustainability course offerings: 13.10

Total number of academic departments that offer courses:

12

Number of academic departments with sustainability course offerings: $\hat{\mathbf{x}}$

Percentage of academic departments with sustainability course offerings: 66.67

A copy of the institution's inventory of its sustainability course offerings and descriptions: Stevens_Institute_of_Technology_AY18-19_Academic_Course_Inventory_4J28N7i.xlsx

Do the figures reported above cover one, two, or three academic years?: One

A brief description of the methodology used to complete the course inventory:

To represent the most accurate sustainability efforts of Stevens Institute of Technology, data covers the most recent, complete academic year (2018-2019).

The course inventory process was initiated by a staff member from the Office of the Provost submitting a data request form with the Office of the Registrar regarding courses that include sustainability.

After crosschecking the course inventory received from the Office of the Registrar, the staff member from the Office of the Provost searched the 2018-2019 and 2019-2020 Academic Catalogs, along with the Stevens website, for the most up-to-date course curriculum requirements and course descriptions.

Once the course inventory was complete, the list was sent to Dr. Dibyendu (Dibs) Sarkar, director of the sustainability management program and professor in the Charles V. Schaefer, Jr. School of Engineering and Science (SES), to confirm and finalize the inventory. Dr. Keith Sheppard, professor and senior advisor to the Dean in the SES, consulted with school/college designees to provide additional insight regarding academic courses and achievements at Stevens.

A staff member from the Office of Institutional Research and Effectiveness provided the total number of undergraduate and total number of graduate courses offered by the institution.

How were courses with multiple offerings or sections counted for the figures reported above?: Other (please describe below)

A brief description of how courses with multiple offerings or sections were counted:

Each course was counted as a single course regardless of the number of sections. Courses that are cross-listed (listed for multiple sections) were counted together as a single course.

Courses that applied to an undergraduate program and a graduate program were counted for each program level. For example, if the course was listed for the Green Engineering Minor curriculum and the Sustainable Energy Systems (Mechanical Engineering) Graduate Certificate curriculum, the course was counted for both undergraduate courses offered that include sustainability and graduate courses offered that include sustainability.

Website URL where information about the sustainability course offerings is available:

https://www.stevens.edu/academics/academic-catalog

Additional documentation to support the submission:

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Data source(s) and notes about the submission:

Stevens Institute of Technology consists of three schools and one college: the Charles V. Schaefer, Jr. School of Engineering and Science (SES), the School of Business (Business), the School of Systems and Enterprises (SSE) and the College of Arts and Letters (CAL). The School of Business, SSE and CAL do not have specific academic department structures and were therefore counted as one academic department for the purposes of this report. The SES does have a specific academic department structure of nine departments, and therefore each department was individually counted.

Learning Outcomes

Provisional Score

Responsible Party

3.51 / 8.00

Keith Sheppard
Professor & Associate Dean of Engineering & Science
Schaefer School of Engineering & Science

Criteria

Part 1. Institutional sustainability learning outcomes

Institution has adopted one or more sustainability learning outcomes that apply to the entire student body (e.g., general education requirements covering all students) or, at minimum, to the institution'spredominant student body (e.g., learning outcomes that cover all undergraduate students).

The learning outcome(s) may be explicitly focused on sustainability or supportive of sustainability (see Standards and Terms). Mission, vision, and values statements do not qualify.

Part 2. Program-level sustainability learning outcomes

Institution's students graduate from degree programs that require an understanding of the concept of sustainability, i.e., programs that:

- · Have been identified as sustainability-focused programs in the Undergraduate Program or Graduate Program credit,
- Have adopted one or more sustainability-focused learning outcomes (i.e., student learning outcomes that explicitly focus on the concept of sustainability or the interdependence of ecological systems and social/economic systems), OR
- · Require successful completion of a sustainability-focused course as identified in the Academic Courses credit.

This credit includes graduate as well as undergraduate programs. 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 the Continuing Education credit in Public Engagement. Programs that include co-curricular aspects may count as long as there is an academic component to the program.

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

Has the institution adopted one or more sustainability learning outcomes that apply to the entire student body or, at minimum, to the institution's predominant student body?:

Yes

Which of the following best describes the sustainability learning outcomes?: Sustainability-supportive

A list of the institution level sustainability learning outcomes:

The Schaefer School of Engineering and Science has adopted a general set of outcomes across all engineering programs aligned with those of ABET (Accreditation Board for Engineering and Technology, Inc.). Two outcomes are related to sustainability, specifically mentioning that students will have the ability:

- 1. to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental and economic factors
- 2. to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.

Total number of graduates from degree programs: 2,520

Number of graduates from degree programs that require an understanding of the concept of sustainability:

476

A brief description of how the figure above was determined:

A member from the Office of Institutional Research and Effectiveness provided the total number of graduates from degree programs and number of graduates from degree programs that require an understanding of the concept of sustainability.

The number of graduates from degree programs that require an understanding of the concept of sustainability include all:

- civil engineering students
- environmental engineering students
- ocean engineering students
- mechanical engineering students
- sustainability management students

- any student with a green engineering minor
- any student with a water resources minor
- any student with an environmental management certificate
- any student with a sustainable energy mechanical engineering certificate

as these are the programs that specify sustainability learning outcomes at the program level.

A list of degree programs that require an understanding of the concept of sustainability:

The following highlights the sustainability-focused learning outcomes for programs offered at Stevens Institute of Technology:

1. Environmental Engineering Program (Undergraduate and graduate programs)

The objectives of the environmental engineering program are aligned with these expectations for graduates:

- a. Graduates of the program will be recognized as "the best in the business" by their peers by leveraging their strong technical basis to continuously increase their skills and knowledge in their area of expertise and will develop the qualifications for licensure.
- b. Graduates of the program will have a positive impact on their workplace, through multidisciplinary collaboration, teamwork and leadership.
- c. Graduates of the program effectively navigate contextual factors in their careers, including the historical, regulatory, political, policy, economic, ethical and public relations aspects of environmental problems.
- 2. Green Engineering Minor (Undergraduate program)

The objectives of the Green Engineering Minor are aligned with these expectations for graduates:

- a. Provide a holistic, systems perspective to the impact of human activity on the environment, including the role of engineering.
- b. Educate students in the concepts of sustainable development and industrial ecology.
- c. Provide insight into sustainability tools and metrics such as life cycle analysis and ecological footprint.
- d. Show how engineering decisions, particularly with regard to design, can support sustainability goals.
- e. Develop awareness of the ethical, economic, social and political dimensions that influence sustainability.
- 3. Master of Science in Sustainability Management (Graduate program)

The M.S. in Sustainability Management is for students in science, engineering, architecture, planning, business, social science, communications, law and policy fields who want to be a part of the relatively new, but rapidly-growing cadre of trained sustainability experts and managers. The program intends to turn their passion for sustainability into impactful careers by devising a dynamic, mission-driven curriculum that focuses on application of sustainability principles in all spheres of life – environmental, economic, social - for protection of the environment and earth's natural resources, in promoting economic development without impacting the environment, and in implementing practical solutions based on principles of social inclusion, thus ensuring a better quality of life for all members of the society. Students benefit from close interaction with an internationally recognized faculty with diverse educational and professional backgrounds; hybrid format of many classes that are offered in the evenings; and networking opportunities with industry and academic experts via participation in the weekly Sustainability Seminar Series. Graduates of the program will be well positioned to lead the workforce in devising and implementing sustainable strategies for development in business, non-profit organizations, and in the public sector (municipal government to federal).

4. Dual MS-MBA Degree in Sustainability Management (Graduate program)

Students graduating with an MS-MBA Sustainability Management are expected to develop in-depth insights required for critical thinking in pursuing deeper understanding and concomitant solutions to important sustainability problems.

Graduates of the program will be well positioned to devise sustainable business strategies; form new ventures and startups on sustainability; join leading management consulting firms; and lead sustainability projects and initiatives within midsize or large corporations or with a government institution.

Specifically, the graduates will:

- a. Develop basic skills of management as well as gain knowledge of analytical methods for approaching organization problems.
- b. Be able to integrate managerial and technical aspects of sustainability.
- c. Demonstrate fluency in the current body of knowledge in sustainability and apply that knowledge toward optimal

decision-making process in their respective field of practice.

- d. Exhibit proper use of integrative thinking in order to holistically analyze the relationship between human activity and the natural, social, and economic environments.
- e. Integrate sustainability at various levels in their organizations.
- f. Acquire both qualitative and quantitative analytical skills and apply those skills in solving sustainability related problems in the context of their professional interests and expertise.
- g. Evaluate the sustainability of current and future technology applications.
- h. Able to perform sustainability data management.
- i. Possess high quality written and oral communication skills to efficiently communicate complex sustainability issues to a varied audience.
- j. Demonstrate high level of professionalism.
- 5. Mechanical Engineering Program (Undergraduate and graduate programs)

By the time of graduation, mechanical engineering students will have:

- a. (Scientific Foundations) the ability to use applied scientific knowledge to solve problems in mechanical engineering and related fields (ABET Criterion 3a).
- b. (Engineering Foundations) the ability to use fundamental engineering knowledge to solve problems in mechanical engineering and related fields (ABET Criterion 3a).
- c. (Experimentation) the ability to design and conduct experiments, as well as to analyze and interpret experimental data for mechanical engineering and related applications (ABET Criterion 3b).
- d. (Technical Design) the technical ability to design mechanical and thermal engineering devices or systems to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability (ABET Criterion 3c).
- e. (Design Assessment) the ability to develop and assess alternative designs of both mechanical and thermal engineering systems based on technical and non-technical criteria including their impact in a global economic, environmental and societal context (ABET Criterion 3h).
- f. (Tools) the ability to use the relevant tools necessary for practice in mechanical engineering and related fields (ABET Criterion 3k).
- g. (Professionalism) the ability to recognize and achieve high levels of professionalism in their work (ABET Criterion 3f).
- h. (Leadership) the ability to assume leadership roles (ABET Criterion 3d).
- i. (Teamwork) the ability to function on multidisciplinary teams (ABET Criterion 3d).
- i. (Communication) the ability to communicate effectively and persuasively (ABET Criterion 3q).
- k. (Ethics) a critical understanding of ethical responsibility (ABET Criterion 3f).
- I. (Contemporary Issues) a knowledge of contemporary issues (ABET Criterion 3j).
- m. (Lifelong Learning) a recognition of the need for an ability to engage in lifelong learning and development (ABET Criterion 3i).
- n. (Entrepreneurship) fundamental knowledge and an appreciation of the technology and business processes necessary to nurture new technologies from concept to commercialization.
- 6. Civil Engineering Program (Undergraduate and graduate programs)

Graduates of the Stevens program meet the demands for positions of responsibility in various sub-disciplines of civil engineering and contribute to the advancement of the civil engineering practice.

A graduate of the Civil Engineering Program at Stevens Institute of Technology will be prepared to:

- a. (Scientific Foundation) be able to use knowledge of the underlying mathematics and physics to analyze civil engineering problems. Examples include the determination of axial and shear stresses.
- b. (Engineering Foundation) be able to apply engineering science principles to civil engineering problems such as the use of static equilibrium to determine the forces and moments on structural elements.
- c. (Experimentation) be able to design and conduct experiments and analyze results to determine soil, structural and fluid and environmental parameters.
- d. (Technical Design) be able to use the required codes and standards in design. Examples include design of beams, columns and retaining walls using the ACI code.
- e. (Design Assessment) be able to incorporate considerations such as feasibility, applicability, cost, legal/regulatory, societal impacts, etc. in design, and have experience working with practicing engineers.
- f. (Tools) be able to use modern software for the analysis and design of structures (e.g. SAP 2000) and to use computer software for data analysis, reporting and presentations (e.g. AutoCAD, MATLAB and Excel).
- g. (Professionalism) know about professional management practices for civil engineers.
- h. (Leadership) have experience taking leadership roles in teams.
- i. (Teamwork) have experience working within teams.
- j. (Communication) be capable of writing and presenting technical [information].
- k. (Ethics and Morals) know about ethical problems that face civil engineers, and the codes that specify the professional response to them.
- I. (Social Issues) be familiar with current policy issues regarding civil engineering projects.

- m. (Life-Long Learning) show an interest in professional societies and their activities, and independently seek information related to the civil engineering profession.
- n. (Entrepreneurship) have experience proposing a technical solution to a novel civil problem and the understanding of the business side of civil engineering.
- 7. Ocean/Naval Engineering (Undergraduate and graduate programs)

Knowledge and skills students should possess at the time of graduation:

- a. (Scientific foundations) Graduates will have a fundamental understanding of hydromechanics, structural dynamics and statics, and control theory covering experimental, theoretical, and computational approaches.
- b. (Engineering foundations) Graduates will be able to use knowledge of the underlying engineering principles stated in (1) to analyze naval and ocean systems using a unified approach combining theory, experiments, and simulation.
- c. (Experimentation) Graduates will be able to design and conduct experiments and analyze results involving stability, resistance, and seakeeping characteristics of marine vehicles and floating structures and the ability to use basic tow-tank equipment for testing, including knowledge of instrumental methods of analysis.
- d. (Technical Design) Graduates will be able to apply the unified approach as defined in (2) to design naval and ocean engineering systems and processes.
- e. (Design Assessment) Graduates will be able to compare alternative designs based on considerations such as feasibility, applicability, cost, etc.
- f. (Tools) Graduates will be able to use software tools for data processing and statistics, math analysis, CAD for naval engineering systems, marine vehicle performance modeling, and hydrodynamic and structural modeling.
- g. (Professionalism) Graduates will know about professional management practices and legal and regulatory considerations in the naval and ocean engineering field.
- h. (Leadership) Graduates will have experience taking leadership roles in teams.
- i. (Teamwork) Graduates will have knowledge of group dynamics, the roles and jobs necessary for functioning of a team, and have experience taking various roles in teams.
- j. (Communication) Graduates will be able to present information accurately and concisely by written, oral and visual means including podium presentations, written technical reports, and representation of information with aid of computer-based tools.
- k. (Ethics and Morals) Graduates will be able to use a variety of moral frameworks to evaluate individual and social choices, and have knowledge of the kinds of ethical problems that face engineers, and the engineering ethics codes that guide the professional response to them.
- I. (Social Issues) Graduates will have an understanding of contemporary environmental/social issues involving the ocean and ocean-related technology.
- m. (Lifelong Learning) Graduates will demonstrate an appreciation of extracurricular sources of learning, such as participation in professional societies.
- n. (Entrepreneurship) Graduates will understand the steps involved in taking a technology from conception to market and can demonstrate these steps by an actual or hypothetical example.

A full description of learning outcomes is available in the academic catalog.

Documentation supporting the figure reported above (upload):

Do the figures reported above cover one, two, or three academic years?: One

Percentage of students who graduate from programs that require an understanding of the concept of sustainability:

18.89

Website URL where information about the sustainability learning outcomes is available:

Additional documentation to support the submission:

Provisional Score

Responsible Party

Keith Sheppard

3.00 / 3.00

Professor & Associate Dean of Engineering & Science Schaefer School of Engineering & Science

Criteria

Institution offers at least one:

- Sustainability-focused program (major, degree, or certificate program) for undergraduate students
 - AND/OR
- Undergraduate-level, sustainability-focused minor or concentration (e.g., a concentration on sustainable business within a business major).

To count, a major, degree/certificate program, minor, or concentration must have a primary and explicit focus on the concept of sustainability or the interdependence of ecological systems and social/economic systems.

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in the Continuing Education credit in Public Engagement.

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

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

Yes

Name of the sustainability-focused undergraduate degree program:

Bachelor of Engineering in Environmental Engineering

A brief description of the undergraduate degree program:

Environmental engineering has traditionally been taught as a branch of civil engineering concerned with the supply of safe drinking water and the sanitary disposal of municipal wastes. The field has expanded in recent years to include many new areas, such as the treatment of industrial and hazardous wastes, the prediction of the fate and transport of pollutants in the environment, and the design of systems for remediation of sites contaminated with hazardous wastes. Furthermore, the field continues to grow into new directions such as sustainability and green engineering. These changes have placed new demands on engineers to understand the fundamental environmental transformation processes that describe natural and engineered systems for which this program is designed to prepare our students.

Website URL for the undergraduate degree program:

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/environmental-engineering

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

Bachelor of Engineering in Civil Engineering

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

Civil engineering is one of the most visible technical fields that draws on aspects of physics, mathematics, project management and many other areas. In addition to planning, designing and supervising the construction of public facilities - skyscrapers, roads, bridges, ports, irrigation systems and more - civil engineers are also involved in business, managing natural resources, addressing climate hazards and modern societal challenges of all kinds.

At Stevens, students pursue a broad-based curriculum that provides a firm foundation in engineering, as well as substantial experience in the humanities and business engineering management. Within the sequences of civil engineering courses, students have the flexibility to concentrate in structural, geotechnical, water resources and environmental engineering or construction management. Students thoroughly explore mechanics, and develop a strong foundation in science, mathematics and computation.

Students also receive hands-on, industry experience through senior design projects, co-ops, and study abroad programs. Studying in the heart of the tri-state area, students are surrounded by modern marvels of civil engineering, as well as some of the top firms in the field. Partnerships with industrial firms, engineering consulting firms and construction contractors in the public and private sector, as well as various government agencies, offer an array of opportunities to connect with the real-world of civil engineering.

Website URL for the undergraduate degree program (2nd program):

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/civil-engineering

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

Bachelor of Engineering in Mechanical Engineering

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

The bachelor's degree in mechanical engineering at Stevens offers students a broad background in engineering and the liberal arts, with the technical skills needed to support the design, testing and manufacture of products, systems and devices.

Mechanical engineers help fix the major problems of the nation and world by design and creating:

- 1. biomedical devices and technologies for health and rehabilitation
- 2. Energy and water solutions for a cleaner, greener earth
- 3. Infrastructure development in a fast-paced society
- 4. Security and defense applications for a safer world

Mechanical engineering students can select concentrations such as power generation and sustainable energy within the mechanical engineering program.

Website URL for the undergraduate degree program (3rd program):

https://www.stevens.edu/schaefer-school-engineering-science/departments/mechanical-engineering/undergraduate-programs/mechanical-engineering

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

1. Bachelor of Engineering in Engineering (Concentration in Naval Engineering)

Ocean, coastal, naval and marine engineers concentrate on problems associated with our use of oceans and coastal areas such as maritime transport, energy generation, fisheries, recreation and waste management. Ocean/naval engineering at Stevens offers comprehensive education related to design and evaluation of marine systems (ships, underwater vehicles, wave energy converters, etc.) and development, maintenance and protection of coastal areas (sustainable use of ocean resources, impact of climate change and sea level rise and prediction and recovery from coastal flooding.

The naval engineering concentration within the engineering program is a broad-based discipline that involves the design, construction, operation, and maintenance of surface and subsurface ships, ocean structures, and shore facilities. Because of the complexities of today's naval and civilian vessels and supporting infrastructure, the naval engineer must possess a strong background in the physical sciences, mathematics, and modeling, as well as the more specialized fields of naval architecture, marine engineering, systems engineering, and environmental engineering.

At Stevens, world class professors and facilities prepare students to design, build, operate and maintain ships and other waterborne vessels and oceanographic technology. Located across the Hudson River from New York City, the epicenter of ship design and harbor operations, Stevens collaborates with the government and private companies in design and testing, ensuring that students receive the technical knowledge and practice experience necessary to

thrive in the professional world. Students can explore ship and hull design; propulsion systems; effects of ocean properties on ship transport and; homeland security and waterfront defense technology.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce

an-engineering/undergraduate-programs/engineering-concentration-naval-engineering

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

Yes

Name of the sustainability-focused undergraduate minor or concentration:

Coastal Engineering Minor

A brief description of the undergraduate minor or concentration:

The coastal engineering minor consists of a sequence of courses designed to prepare students to apply civil/ environmental engineering principles to solve problems related to coastal sustainability. In addition to the core classes, the coastal engineering minor includes courses that focus on understanding the coastal/marine environment and the application of this knowledge to solve engineering challenges of societal relevance including shoreline erosion, water quality degradation, and habitat loss. Students completing a coastal engineering minor will be equipped with a specialized set of skills that will make them uniquely adapted to work within a number of disciplines along both urban and natural coastlines.

Website URL for the undergraduate minor or concentration:

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/undergraduate-minors/coastal-engineering-minor

Name of the sustainability-focused undergraduate minor or concentration (2nd program): Environmental Engineering Minor

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

The Environmental Engineering Minor consists of three required courses:

- 1. CE 342 Fluid Mechanics
- 2. CHE 210 Process Analysis
- 3. EN 375 Environmental Systems

and any three of the following:

- 1. EN 541 Fate and Transport of Environmental Contaminants
- 2. EN 570 Environmental Chemsitry
- 3. EN 571 Physicochemical Processes for Environmental Control
- 4. EN 573 Biological Processes for Environmental Control

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

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/undergraduate-minors/environmental-engineering-minor

Name of the sustainability-focused undergraduate minor or concentration (3rd program): Green Engineering Minor

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

The Green Engineering Minor provides students a holistic, systems perspective to the impact of human activity on the environment, including the role of engineering; educates students in the concepts of sustainable development and industrial ecology; provides insight into sustainability tools and metrics such as life cycle analysis and ecological

footprint; shows how engineering decisions, particular with regard to design, can support sustainability goals and; develops awareness of the ethical, economic, social and political dimensions that influence sustainability.

Website URL for the undergraduate minor or concentration (3rd program):

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/undergraduate-minors/green-engineering-minor

The name and website URLs of all other sustainability-focused undergraduate minors and concentrations:

1. Water Resources Minor

The Water Resources Minor consists of six courses:

- 1. CE 304 Water Resources Engineering
- 2. CE 342 Fluid Mechanics
- 3. CE 525 Stormwater Management
- 4. CE 578 Coastal and Floodplain Engineering OR CE 537 Introduction to GIS
- 5. CE 685 Advanced Hydraulics OR CE 652 Hydrologic Modeling
- 6. EN 686 Groundwater Hydrology and Pollution OR EN 552 Groundwater Engineering

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/undergraduate-programs/undergraduate-minors/water-resources-minor

Additional documentation to support the submission:

Provisional Score

Responsible Party

Dibs Sarkar

3.00 / 3.00

Professor Civil Environmental and Ocean 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).

To count, a program, minor, concentration, or certificate must have a primary and explicit focus on the concept of sustainability or the interdependence of ecological systems and social/economic systems.

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in the Continuing Education credit in Public Engagement.

"---" 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

Name of the sustainability-focused graduate-level degree program:

Master of Science in Sustainability Management

A brief description of the graduate-level degree program:

The M.S. in Sustainability Management is for students in science, engineering, architecture, planning, business, social science, communications, law and policy fields who want to be a part of the relatively new, but rapidly-growing cadre of trained sustainability experts and managers. The program intends to turn their passion for sustainability into impactful careers by devising a dynamic, mission-driven curriculum that focuses on application of sustainability principles in all spheres of life – environmental, economic, social - for protection of the environment and earth's natural resources, in promoting economic development without impacting the environment, and in implementing practical solutions based on principles of social inclusion, thus ensuring a better quality of life for all members of the society. Students benefit from close interaction with an internationally recognized faculty with diverse educational and professional backgrounds; hybrid format of many classes that are offered in the evenings; and networking opportunities with industry and academic experts via participation in the weekly Sustainability Seminar Series. Graduates of the program will be well positioned to lead the workforce in devising and implementing sustainable strategies for development in business, non-profit organizations, and in the public sector (municipal government to federal).

Website URL for the graduate-level degree program:

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/sustainability-management-masters-program

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

Dual MS-MBA in Sustainability Management

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

This dual program offers an exceptional combination of management skills with deep and practical knowledge of the technical aspects of sustainability. In-depth training in strategic management enables the graduates of the dual program to evaluate and implement sustainability-related projects from financial and managerial perspectives. The program emphasizes development of sustainable models for business operations, i.e., promoting economic and business development without damaging the environment, and implementation of practical solutions inside of organizations resulting in cost-saving through sustainable practices.

Students in this program benefit from close interaction with an internationally recognized faculty body with diverse educational and professional backgrounds both in the School of Engineering and Science and in the School of Business; from the hybrid format of many classes; summer classes; and networking opportunities with industry and government experts via participation in the weekly Sustainability Seminar Series. Hands-on training is emphasized in the program to prepare students for life after graduation, which includes a standalone training module in sustainability consulting as part of the capstone project course. The program requires industry mentors to work directly with students on their capstone projects; students are connected with senior professionals from local/regional companies who act as their guides.

Website URL for the graduate degree program (2nd program):

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/sustainability-management-masters-program

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

Master of Engineering in Environmental Engineering

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

The Environmental Engineering graduate program is divided into two areas of concentration: Environmental Control Processes and Groundwater and Soil Pollution Control.

The Environmental Processes concentration addresses the treatment of industrial and domestic water and wastewater, and hazardous wastes. Process fundamentals are integrated with a design-based approach to meeting treatment objectives. Students will be prepared for careers in both design and operation of facilities for pollution control. Graduates of this program are best qualified for design and operation work in public and private treatment facilities such as for drinking water, wastewater, and industrial wastes.

The Groundwater and Soil Pollution Control concentration emphasizes the transport and fate of contaminants in the subsurface environment and on engineering processes to mitigate their adverse environmental impact. Some specific areas of study in this option are the modeling of contaminant transport in local or regional geohydrologic systems, the impact of contamination in the subsurface environment, the management of municipal and industrial waste disposal, and the remediation of groundwater and soil. Many of our graduates in this option work in remediation of contaminated properties or of groundwater resources.

The Environmental Management concentration equips environmental engineering students with knowledge and tools to holistically analyze environmental problems that require a thorough understanding of the complex interrelationships between science, technology, policy and management. A mix of design, technical and contextual courses, this concentration prepares students for careers in the environmental industry that increasingly has to work in close collaboration with state, federal and international regulatory agencies.

Website URL for the graduate degree program (3rd program):

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/environmental-engineering-masters-program/curriculum-overview

The name and website URLs of all other sustainability-focused graduate-level degree programs:

1. Environmental Engineering Doctoral Program

The environmental engineering Ph.D. program at Stevens engages students in the pursuit of research at the forefront of the field with faculty experts in water and wastewater treatment, arsenic and heavy metals, environmental remediation, physicochemical processes and more.

In this program, Ph.D. students and researchers collaborate with international organizations and contribute to the development of solutions to global issues such as the fate, transport and treatment of arsenic and heavy metals in water and solids, the environmental compatibility and effect of consumer products and the development of environmentally sustainable and cost-effective technologies utilizing natural products, recycled wastes, plants and microbes.

The environmental engineering program maintains state-of-the-art laboratories and has a vibrant sponsored research program in environmental science and technology. Ph.D. students in the program have the opportunity to publish papers in peer-reviewed journals, carry out research in well-funded, well-equipped analytical and process laboratories and participate in research around water treatment and the conversion of wastes into biofuel.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/environmental-engineering-doctoral-program

2. Master of Engineering in Civil Engineering

The curriculum for the civil engineering master's degree varies depending on which concentration you choose. Concentrations are available in the areas of structural, transportation, geotechnical/geoenvironmental and water resources engineering.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/civil-engineering-masters-degree/curriculum-overview

3. Civil Engineering Doctoral Program

From wastewater treatment to emerging construction materials, multi-scale modeling to probabilistic models, the civil engineering Ph.D. program at Stevens is excellent preparation for a rewarding career in a field burgeoning with opportunity.

The civil engineering Ph.D. program emphasizes interdisciplinary research with concentrations in structural engineering, construction materials and geotechnical engineering, allowing Ph.D. students to develop a strong scholarly identity. Ph.D. candidates pursue their studies in a wide selection of testbeds and laboratories, collaborating with renowned faculty - experts in bridges, structural mechanics, probabilistic modeling, stochastic processes and more - and award-winning investigators.

Ph.D. candidates and faculty work together to make breakthroughs in many areas of civil engineering including construction management; smart structural systems and advanced construction materials for sustainable and resilient infrastructure; and structural engineering with a focus on hazard mitigation, infrastructure rehabilitation, computational mechanics, solid and structural mechanics, structural dynamics and probabilistic modeling.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/civil-engineering-doctoral-program

4. Master of Engineering in Mechanical Engineering

The mechanical engineering master's program at Stevens gives students an edge in an increasingly competitive profession where a mastery of research, design, production and testing skills us just as important as the next big idea.

This program focuses on techniques that enable the consistent creation of products through a science-based understanding of engineering materials and manufacturing processes and prepares students to solve complex engineering problems, position emerging technologies, lead the development of high-quality products, manage projects and maintain exacting standards in an ever-evolving economy.

The mechanical engineering program trains students for leadership positions in automotive, medical device, additive manufacturing, renewable energy, robotics and automation, power generation, aerospace industries and many other fields.

https://www.stevens.edu/schaefer-school-engineering-science/departments/mechanical-engineering/graduate-programs/mechanical-engineering-masters-program

5. Mechanical Engineering Doctoral Program

The mechanical engineering doctoral program at Stevens gives students the opportunity to work alongside Stevens' nationally recognized faculty and in state-of-the-art centers that look for solutions to advanced, multidisciplinary problems addressing real-world engineering challenges. Students will actively engage in advanced research topics and graduate with an expertise in the modeling and simulation of mechanical engineering problems using multiphysics analysis tolls and gain experience to perform experimental research in major mechanical engineering fields including fluid, thermal, structural and materials. Students will build academic credentials while contributing to major advances in fields such as robotics, bioengineering, additive manufacturing, nanomaterials and sustainable energy systems.

https://www.stevens.edu/schaefer-school-engineering-science/departments/mechanical-engineering/graduate-programs/mechanical-engineering-doctoral-program

6. Master of Engineering in Ocean Engineering

The ocean engineering master's program at Stevens is one of only a few in the country. Our world-renowned faculty, state-of-the-art research facilities, strategic initiatives and nationwide partnerships supply graduate students with a wealth of opportunities in oceanography, maritime administration, naval architecture and environmental studies related to our waterways and coastal environments. The marine industry is vast and ever-evolving, with a great deal of opportunity for young ocean engineers to pursue impactful research and innovative careers.

Master's students are encouraged to make contributions to the field while studying. Stevens is known for its award-winning student body, cultivating advancements in predicting extreme weather, mapping currents, protecting communities against environmental hazards and enhancing port performance.

The program requires the completion of three core courses that can be combined with other courses in the program to create degrees focused on any number of ocean engineering topics, including: ocean and atmospheric modeling, sediment transport, green infrastructure design, mixing processes in coastal and estuarine waters, environmental fluid mechanics, estuarine and coastal ocean modeling, motion of vessels in waves, underwater acoustics, renewable energy, and urban coastal resilience.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/ocean-engineering-masters-program

7. Ocean Engineering Doctoral Program

The ocean engineering Ph.D. program at Stevens is one of the top academic programs of its kind in the country, enabling students to pursue research in a broad range of areas pertaining to naval engineering and coastal resilience.

Located alongside the Hudson River overlooking Manhattan and New York Harbor, Stevens offers a premiere location in which to study ocean engineering, allowing future ocean engineers in the Ph.D. program opportunities to participate in large-scale studies and projects on coastal flood protection and offshore wind energy. In addition to field research opportunities, Stevens boasts one of the world's fastest towing tanks at the Davidson Laboratory, which is an internationally renowned facility famous for its pursuit of research in ocean engineering.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce

an-engineering/graduate-programs/ocean-engineering-doctoral-program

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

Yes

Name of the graduate-level sustainability-focused minor, concentration or certificate:

Environmental Management Graduate Certificate

A brief description of the graduate minor, concentration or certificate:

The Stevens graduate certificate in Environmental Management equips students and professionals with tools and knowledge to manage environmental problems routinely faced by government, industry and community organizations.

With skills in technical problem solving, scientific and policy communications, teamwork and project management, graduates of this certificate program are expected to avail the environmental management-related employment opportunities associated with their primary field of academic preparation. Environmental management jobs are currently in abundance in the tristate area because of the extensive nature of environmental degradation caused by the various industries that indiscriminately polluted the local environment for many decades resulting in the largest concentration of superfund sites per unit area in the entire nation.

Graduates of the program will have the ability to analyze environmental management problems that are routinely faced by government, industry and community organizations, which require a thorough understanding of the complex interrelationships between science, policy and management.

Website URL for the graduate minor, concentration or certificate:

https://bit.ly/2Ncou7P

Name of the graduate-level sustainability-focused minor, concentration or certificate (2nd program): Certificate in Sustainable Energy Systems - Mechanical Engineering

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

Topics covered in courses within this certificate include current and potential future energy systems, fuel resources, conversion of resources, and end-use, and emphasis on meeting local and global energy needs in the 21st century in a sustainable manner. Special attention is given to the current global energy situation which places great focus on fossil fuels. Various renewable and conventional energy technologies are presented including nuclear, wind, solar, and hydrogen, and their attributes described within a framework that aids in evaluation and analysis of energy technology systems in the context of political, social, economic, and environmental goals. Systems engineering and economic tools are presented which are critical for the evaluation of competing energy approaches.

The overall objectives are as follows:

- 1. The student will be able to assess the performance and basic design of various energy conversion systems including traditional (combustion and nuclear) and alternative (solar, wind, hydrogen, etc) approaches.
- 2. The student will become familiar with the basic physics and chemistry of environmental issues related to the greenhouse effect and global climate change.
- 3. The student will perform comparative analysis of various energy conversion systems. The main criteria used for comparison include economic, social acceptability and environmental consequences.

The emphasis is placed on application of quantitative engineering techniques to energy systems, as reflected in objectives 1-3 above. Accordingly, courses within this certificate will draw on basic material studied in thermodynamics, fluid mechanics, heat transfer and simple electronic theory. Along the way, students will be exposed to the relationships between energy systems and society and the related economic, environmental, ethical, policy and other issues.

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

https://www.stevens.edu/schaefer-school-engineering-science/departments/mechanical-engineering/graduate-programs/graduate-certificates

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):

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:

- 1. Applied Coastal Oceanography Graduate Certificate
- 2. Atmospheric and Environmental Science and Engineering (Interdisciplinary) Graduate Certificate
- 3. Environmental Hydrology Graduate Certificate
- 4. Environmental Processes Graduate Certificate
- 5. Hydraulics Graduate Certificate
- 6. Inland and Coastal Environmental Hydrodynamics Graduate Certificate
- 7. Multi-Hazard Engineering Graduate Certificate
- 8. Ocean Engineering Graduate Certificate
- 9. Soil and Groundwater Pollution Control Graduate Certificate
- 10. Surface Water Hydrology Graduate Certificate
- 11. Water Quality Graduate Certificate
- 12. Water Resources Engineering Graduate Certificate

Additional documentation to support the submission:

Provisional Score

Responsible Party

Dibs Sarkar

2.00 / 2.00

Professor Civil Environmental and Ocean Engineering

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.

To qualify, a program must have a primary and explicit focus on the concept of sustainability, the interdependence of ecological and social/economic systems, and/or a major sustainability challenge.

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 is one week or more in length?:

Yes

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

The Hugo Neu Corporation Sustainability Seminar Series is a weekly lecture hosting 11 speakers per semester. The series is sponsored by the Hugo Neu Corporation, and co-sponsred by BEM Systems, Brown and Caldwell, Geosyntec Consultants and H2M Architects and Engineers. It is organized by the sustainability management master's program at Stevens Institute of Technology. Sample topics include "Stronger and More Resilient Infrastructure to Address the Effects of Climate Change", "Sustainability and Digitalization in the Beauty Industry" and "Sustainable Coffee: From Bean to Cup". The seminar is open to Stevens faculty, staff and students and is live webcast via Stevens WebCampus and Blackboard Collaborate for those who are unable to attend in person.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/sustainability-management-masters-program/sustainability-semin ar-series

Stevens offers an accelerated Sustainable Energy study abroad program in Madrid, Spain. In collaboration with exchange partner Comillas Pontificial University, the 500-level course combines lectures, guest speakers, lab work, research and field trips, providing students an immersive introduction to sustainable energy technologies at an accelerated pace. With more than 40 percent of Spain's electricity coming from renewable energy, the summer program offers students more immediate access to more extensive green resources, knowledge and infrastructure. Students are immersed in sustainable energy concepts and technology, and they're immersed in a culture and place outside of their own.

https://www.stevens.edu/news/engineering-sustainable-opportunities-through-study-abroad

Website URL where information about the institution's immersive education programs is available:

Additional documentation to support the submission:

Provisional Score

2.00 / 4.00

Responsible Party

Gotham 360 Gotham360

Consultant Facilities Operations

Criteria

Institution conducts an assessment of the sustainability literacy of its students. The sustainability literacy assessment focuses on knowledge of sustainability topics and challenges.

Assessments that exclusively address sustainability culture (i.e., values, behaviors, beliefs, and awareness of campus sustainability initiatives) or student engagement in sustainability-related programs and activities are excluded. Cultural assessments and participation by U.S. and Canadian institutions in the Sustainability Education Consortium (NSSE) are recognized in the Assessing Sustainability Culture credit in Campus Engagement.

An institution may use a single instrument that addresses sustainability literacy, culture, and/or engagement to meet the criteria for this credit if a substantive portion of the assessment (e.g., at least ten questions or a third of the assessment) focuses on student knowledge of sustainability topics and challenges.

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

Does the institution conduct an assessment of the sustainability literacy of its students?: Yes

Which of the following best describes the literacy assessment? The assessment is administered to:: The entire (or predominate) student body, directly or by representative sample

Which of the following best describes the structure of the assessment? The assessment is administered as a::

Standalone evaluation without a follow-up assessment of the same cohort or representative samples

A copy of the questions included in the sustainability literacy assessment(s): AC 6 SLA 2020 Report Final.pdf

A list or sample of the questions included in the sustainability literacy assessment or the website URL where the assessment tool may be found:

See attached.

A brief description of how the literacy assessment was developed and/or when it was adopted:

See attached.

A brief description of how a representative sample was reached (if applicable) and how the assessment(s) were administered :

See attached.

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

Provisional Score

Responsible Party

Dibs Sarkar

0.00 / 2.00

Professor Civil Environmental and Ocean Engineering

Criteria

Institution has an ongoing program or programs that offer incentives for academic staff (i.e., faculty members) in multiple disciplines or departments to develop new sustainability courses and/or incorporate sustainability into existing courses or departments. To qualify, the program must specifically aim to increase student learning of sustainability.

Incentives may include release time, funding for professional development, or trainings offered by the institution. Incentives for expanding sustainability offerings in academic, non-credit, and/or continuing education courses count for this credit.

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

Does the institution have an ongoing program that offers incentives for academic staff in multiple disciplines or departments to develop new sustainability courses and/or incorporate sustainability into existing courses? :

Nο

A brief description of the incentive program(s):

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

Website URL where information about the incentives for developing sustainability course content is available:

Additional documentation to support the submission:

Provisional Score

Responsible Party

Dibs Sarkar

3.20 / 4.00

Professor Civil Environmental and Ocean Engineering

Criteria

Institution is utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability. The applied learning for sustainability initiative includes living laboratory projects that contribute to understanding or advancing sustainability in at least one of the following impact areas:

- · Campus Engagement
- Public Engagement
- · Air & Climate
- Buildings
- Energy
- Food & Dining
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Coordination & Planning
- · Diversity & Affordability
- · Investment & Finance
- Wellbeing & Work

This credit includes substantive work (e.g., class projects, thesis projects, term papers, published papers) that involves active and experiential student learning (see the Credit Example in the Technical Manual). Supervised student internships and non-credit work may count as long as the work has a formal learning component (i.e., there are opportunities to document and assess what students are learning).

Projects that utilize the local community as a living laboratory to advance sustainability may be included under Public Engagement. A single, multidisciplinary living lab project may simultaneously address up to three of the areas listed above.

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

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Campus Engagement?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Campus Engagement:

Students from the Stevens Sustainability Coalition (SSC) helped conduct the sustainability learning assessment for this report. They will continue to work with Stevens faculty and staff to engage the Stevens community in improving and implementing sustainability initiatives on campus.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Public Engagement?:

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Public Engagement:

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Air & Climate?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Air & Climate:

Students and faculty work closely with facilities and campus operations to test new research ideas and implement them into the existing infrastructure.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Buildings?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Buildings:

Students and faculty work closely with facilities and campus operations to test new research ideas and implement them into the existing infrastructure.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Energy?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Energy:

Students and faculty work closely with facilities and campus operations to test new research ideas and implement them into the existing infrastructure. Students frequently use actual campus utility data to review and assess building HVAC systems.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Food & Dining?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Food & Dining:

1. Stop Food Waste Campaign

Every April, Stevens Dining runs a Stop Food Waste campaign during which student volunteers manage a table in the dining hall and weigh food waste from their peers' plates.

2. Sustainability Student Ambassador

The dining hall coffee vendor (which is Rain Forest Alliance Certified) has a student ambassador.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Grounds?:

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Grounds:

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Purchasing?:

No

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Purchasing:

Ils the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Transportation?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Transportation:

1. Bike Friendly University Certification

A student intern worked with the Traffic Demand Management Manager to collect data required for the Bike Friendly University Certification application and helped brainstorm ways to improve Stevens' rating. Students will continue to be involved in the annual application process.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Waste?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Waste:

Students and faculty continue to be involved in recycling programs on campus, increasing the amount diverted from waste. Students and faculty have also conducted research on e-waste recycling on campus.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Water?:

Yes

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Water:

1. EPA Rainworks Challenge

Through the students developed a GI master plan for the campus, and some of the suggestions from past reports have been implemented on campus.

2. Living Laboratory for Stormwater Green Infrastructure

The Living Laboratory for Stormwater Green Infrastructure is strategically placed in three campus sites on the Stevens Institute of Technology campus. At the North building, there are 40 green roof tables, a rain garden and four bioretention planter boxes. The rain garden on Eighth Street and Hudson is intended to stop nuisance flooding generated by runoff from a roof. The ABS rain garden is intended to reduce the volume of runoff from the ABS building roof. These create different forms of urban bioretention solutions. The leading professor and her students are working with multiple entities to find green infrastructure solutions to the runoff problem in the local Hoboken area, where Stevens is located. Hoboken needs water management solutions that work in a highly developed urban location. That means putting small scale water retention systems everywhere, for a cost-effective solution to keep rainwater out of the sewer as opposed to building bigger treatment plants and sewer systems.

Dr. Fassman-Beck's Living Laboratory for Stormwater Green Infrastructure (GI) is a research and demonstration site on the Stevens Institute of Technology campus. With 47 individual GI systems, custom-built from the ground up to measure real-world results, the Living Laboratory is dedicated to engineering GI solutions for urban stormwater challenges. The Living Laboratory's current inventory includes 4 bioretention planters, 38 pilot-scale green roof systems (plus 2 "conventional" pilot-scale roofs), and 3 rain gardens, along with ~100 sensors. Generating quantitative hydrologic and water quality performance data to advance GI design, modeling, and policy is at the heart of the Living Laboratory. Multi-disciplinary efforts engage Software Engineers for Big Data manipulation and Stevens' Center for Innovation in Engineering Science and Education to engage the next generation of sustainable development professionals via K-12 STEM education initiatives.

Stevens and the Living Laboratory is a Regional Center of Living Architecture Excellence, in partnership with the Green Infrastructure Foundation and Green Roofs for Healthy Cities.

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Coordination & Planning?:

No

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Coordination & Planning:

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Diversity & Affordability?:

No

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Diversity & Affordability:

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Investment & Finance?:

No

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Investment & Finance:

Is the institution utilizing its infrastructure and operations as a living laboratory for applied student learning for sustainability in relation to Wellbeing & Work?:

No

A brief description of the projects and how they contribute to understanding or advancing sustainability in relation to Wellbeing & Work:

Website URL where information about the institution's living laboratory program is available:

Additional documentation to support the submission:

Research

Points Claimed 15.00
Points Available 18.00

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	Points
Research and Scholarship	11.33 / 12.00
Support for Sustainability Research	3.00 / 4.00
Open Access to Research	0.67 / 2.00

Research and Scholarship

Provisional Score	Responsible Party
11.33 / 12.00	Minghui Wang EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost

Criteria

Part 1. Sustainability research

Institution produces sustainability research as measured by the percentage of employees who conduct research that are engaged in sustainability research.

Part 2. Sustainability research by department

Institution produces sustainability research as measured by the percentage of academic departments that conduct research that include at least one employee who conducts sustainability research.

Required documentation

Institution must provide an inventory conducted during the previous three years to identify its sustainability research activities and initiatives. The research inventory must be based on the definition of sustainability research outlined in Standards and Terms and include for each individual conducting sustainability research:

- Name
- · Departmental affiliation
- · Research interests/topics or a brief description justifying the individual's inclusion

Research for which partial or incomplete information is provided may not be counted toward earning points for this credit.

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

Total number of employees that conduct research:

178

Number of employees engaged in sustainability research:

Percentage of employees that conduct research that are engaged in sustainability research: 24.72

Total number of academic departments that include at least one employee who conducts research:

Number of academic departments that include at least one employee who conducts sustainability research:

8

Percentage of departments that conduct research that are engaged in sustainability research: 66.67

A copy of the inventory of the institution's sustainability research (upload):

Stevens_Institute_of_Technology_Research_Inventory.xlsx

Inventory of the institution's sustainability research:

Bao, Yi Bunin, Barry Christodoulatos, Christos Datla, Raju De Rosa, Alexander Du, Henry Fassman-Beck, Elizabeth Fisher, Frank Flynn, Timothy Furth, Mirjam Hadim, Hamid Hajj, Muhammad Hayeri, Yeganeh Ilbeigi, Mohammad Kalyon, Dilhan Kim, Jae Chul Korfiatis, George Lawal, Adeniyi Lee, Stephanie

Liu, Kaijian

Marsooli, Reza Meng, Weina Meng, Xioguang Miller, Jonathan Nickerson, Jeffrey Orton, Philip Parziale, Nick Podkolzin, Simon Prigiobbe, Valentina Salloum, Hadv Sarkar, Dibvendu Sedunov, Nikolay Shi, Yong Snell, Clarke Stamnes, Knut Su, Tsan-Liang Sutin, Alexander Tian, Fei Vaccari, David Wu, Lei Yakubovskiy, Alexander Yang, E.H. Yang, Fan Zhang, Xian (Annie)

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

A member from the Office of Sponsored Programs (OSP) compiled the research inventory using the COEUS (research and project administration) database, maintained by the OSP.

The staff member used the following keywords to compile the research inventory: sustainable, resilience, storm surge, coastal flooding, coastal protection, green technology, green infrastructure, net zero technology, storm forecasts, organic, groundwater/wastewater, and pollution. In addition, the professor and senior advisor to the dean of the School of Engineering and Science requested a sustainability research inventory from school/college designees.

The inventory of researchers along with their department, research interests/topics, project name, project duration, publications and applicable web articles is included as an attachment.

Website URL where information about the institution's sustainability research is available:

https://www.stevens.edu/about-stevens/sustainability/academics-research-sustainability

Additional documentation to support the submission:

Data source(s) and notes about the submission:

Additional websites URL where information about the institution's sustainability research is available include:

1

https://www.stevens.edu/research-entrepreneurship/foundational-research-pillars/resilience-sust ainability

2.

https://www.stevens.edu/news/sustainable-stevens-how-one-research-university-planning-greener-future

Support for Sustainability Research

Provisional Score Responsible Party Minghui Wang 3.00 / 4.00 EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost

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 sustainability research. To qualify, the program must provide incentives (e.g., fellowships, financial support, and/or mentorships) that are specifically intended to increase student sustainability research.
- An ongoing program to encourage academic staff from multiple disciplines or academic programs to conduct sustainability research. To qualify, the program must provide incentives (e.g., fellowships, financial support, and/or faculty development workshops) that are specifically intended to increase sustainability research by academic staff.
- Published promotion or tenure guidelines or policies that give explicit positive recognition to interdisciplinary, transdisciplinary, and/or multidisciplinary research.
- 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/or e-learning objects
 focused on sustainability.

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

Does the institution have an ongoing program to encourage students in multiple disciplines or academic programs to conduct sustainability research?:

Yes

A brief description of the student sustainability research program:

- 1. The Innovation and Entrepreneurship Research Program engages undergraduates in research, design or business project for ten weeks over the summer. I&E Summer Research Scholars identify a suitable project, select a faculty advisor, and submit a proposal to the Research Program Committee. Faculty review proposals and identify students with whom they will work. Students present their projects at a poster session during the fall semester to advance collaboration, innovation and presentation skills.
- 2. Stevens' participation in the U.S. Department of Energy Solar Decathlon competition since 2011 offers students a singularly unique learning experience that brought together undergraduate and graduate students with expertise in engineering, energy efficiency, architecture, business, communications, management and computer science to create a net-zero, solar-powered home.

A team of Stevens students won the Solar Decathlon in 2015, with the SUstainable + REsilient (SURE) House. This storm resistant, energy efficient house is now a permanent exhibition at the Liberty Science Center in Jersey City, NJ where it continues to educate students and the community on resilient construction and clean energy systems.

3. The annual Stevens Innovation Expo is an annual showcase for student design, innovation and entrepreneurship. The main exhibition displayed the breadth of ideas and the wealth of innovation that students pour into Senior Design Projects, the capstone of the Stevens undergraduate experience and the culmination of an education focused on problem-solving, multi-disciplinary thinking and teamwork. The program also featured the Ansary Entrepreneurship Competition, an exciting student pitch competition that provides select project teams with an opportunity to display the entrepreneurial mindset that's a hallmark of the Stevens experience. The Innovation Expo provides students an opportunity to work at meeting a practical, industrial need, experience with cross-disciplinary teams and interaction with attending professionals and guests that develop greater professionalism and perspective. Several projects turn into "real life", attainable products or businesses.

All engineering Senior Design Projects require a sustainability impact assessment to be included, even if the project is not directly addressing a sustainability goal.

4. Stevens offers research initiatives and institutional partial tuition waiver for Ph.D. students enrolled within the past three years.

Does the institution have a program to encourage academic staff from multiple disciplines or academic programs to conduct sustainability research?:

Yes

A brief description of the faculty sustainability research program:

Stevens performs leading-edge research in a wide variety of critical disciplines. The university has chosen to exert particular research focus on six specific foundational research pillars in which Stevens currently possesses leading expertise. One of the foundational research pillars is Resilience & Sustainability. Stevens is an international leader in coastal and urban resilience research, driving study and discussion about protecting coastal communities from the effects of climate change. Stevens researchers plan and design wind-energy facilities and water-treatment systems, develop green technologies that utilize algae as fuel and filter rainwater and perform other work that protects environmental quality and reduces human health risks from exposure to environmental contaminants.

The Division of Development and Alumni Engagement actively seeks foundation and corporate support for the valued work that Stevens professors are doing. Since one of Stevens pillars is Resilience & Sustainability, the Division of Development and Alumni Engagement works to build external relationships and submit applications to support faculty research in these areas. For example, Stevens has secured support from the PSEG/PSEG Foundation, the Hugo Neu Corporation and Geosnytec Consultants.

Partial overhead return is provided to faculty to reward them for their efforts in research.

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

No

A copy of the promotion or tenure guidelines or policies:

The promotion or tenure guidelines or policies:

Does the institution have ongoing library support for sustainability research and learning?: Yes

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

The Samuel C. Williams Library provides access to subscription electronic resources that offer access to content related to sustainability research including but not limited to: Academic Search Premier, AccessEngineering, AccessScience, ACS Journals, ASCE Journals, GreenFile, IEEE Xplore, Knovel, ProQuest Central, ScienceDirect, Scopus, SpringerLink, Web of Science and Wiley Online Library.

The Library has created and maintains several online research guides (Springshare LibGuides) that cover content related to sustainability research.

The Library also provides course-specific research instruction sessions and workshops related to sustainability research and course assignments.

Website URL where information about the institution's support for sustainability research is available:

Additional documentation to support the submission:

Data source(s) and notes about the submission:

Website URLs where information about the student research programs include:

1

https://www.stevens.edu/research-entrepreneurship/student-research

Website URLs where information about faculty research programs include:

1.

http://www.stevens.edu/osp

2.

https://www.stevens.edu/research-entrepreneurship/foundational-research-pillars/resilience-sust ainability

Website URLs where information about the library's support for sustainability research include:

1. Library website -

https://library.stevens.edu/

2. Library A-Z databases -

http://researchguides.stevens.edu/az.php

3. Library Research Guides -

https://library.stevens.edu/research-guides

4. Library instruction -

https://library.stevens.edu/research-help/instruction

5. Information Literacy -

https://library.stevens.edu/information-literacy

Provisional Score	Responsible Party
0.67 / 2.00	Minghui Wang EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost

Criteria

Institution facilitates open access publishing in at least one of the following ways. The institution:

- A. Offers institutional repository hosting that makes versions of journal articles, book chapters, and other peer-reviewed scholarly works by its employees freely available on the public internet. The open access repository may be managed by the institution or the institution may participate in a consortial and/or outsourced open access repository.
- B. Has a published policy that requires its employees to publish scholarly works open access or archive final postpeer reviewed (a.k.a. "author's accepted manuscript") versions of scholarly works in an open access repository.

While the policy may allow for publisher embargoes and/or provide a waiver option that allows authors to opt-out of the open access license/program for individual articles, policies and commitments that are strictly voluntary (i.e., opt-in) do not qualify. Likewise, open access policies published by external funding agencies do not qualify in the absence of a formal institutional policy.

- C. Provides an open access article processing charge (APC) fund for employees that includes specified criteria and an application process. Discounts and ad hoc funding for APCs do not qualify in the absence of a formal ongoing program.
- D. Provides open access journal hosting services (directly or through participation in a consortium) through which peer-reviewed open access journals are hosted on local servers with dedicated staff who provide publishing support at no (or minimal) cost.

Policies and programs 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

Does the institution offer repository hosting that makes versions of journal articles, book chapters, and other peer-reviewed scholarly works by its employees freely available on the public internet?:

Website URL where the open access repository is available:

יט ר

A brief description of the open access repository:

Does the institution have a published policy that requires its employees to publish scholarly works open access or archive final post-peer reviewed versions of scholarly works in an open access repository?:

No

A copy of the institution's open access policy:

The institution's open access policy:

Does the policy cover the entire institution? :

No

Does the institution provide an open access article processing charge (APC) fund for employees?:

A brief description of the open access APC fund:

Does the institution provide open access journal hosting services through which peer-reviewed open access journals are hosted on local servers with dedicated staff who provide publishing support at no (or minimal) cost?:

Yes

A brief description of the open access journal hosting services:

Open access research is made freely available on the internet for reading and reuse. The degrees of openness vary but at the very least, this information - articles, conference papers, books, data sets and more - is distributed through publisher websites and repositories without cost.

Estimated percentage of peer-reviewed scholarly works published annually by the institution's employees that are deposited in a designated open access repository:

Website URL where information about the institution's support for open access is available:

https://library.stevens.edu/find/toolbox/open-access

Additional documentation to support the submission:

Data source(s) and notes about the submission:

A brief description of how the institution's library supports open access to research:

- 1. The Library provides research guides and information on Open Access
- 2. The Library promotes the topic of open access during Open Access week in October
- 3. The Library promotes the topic of open access to faculty and graduate students during workshops, research instruction sessions and through librarian liaison communication
- 4. The Library has recently been appointed to draft an Open Educational Resources (OER) plan in compliance with recent New Jersey state legislation to expand access to OER and open textbooks by encouraging faculty to use OER as a way of contributing to college affordability

Engagement

Campus Engagement

Points Claimed 11.25
Points Available 21.00

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 help integrate sustainability into the campus culture and set a positive tone for the institution.

In addition, this subcategory recognizes institutions that support employee engagement, training and development programs in sustainability. Employees' daily decisions impact an institution's sustainability performance and employees can model sustainable behavior for students and the rest of the campus community. Equipping employees with the tools, knowledge, and motivation to adopt behavior changes that promote sustainability is an essential activity of a sustainable campus.

Credit	Points
Student Educators Program	0.00 / 4.00
Student Orientation	2.00 / 2.00
Student Life	1.25 / 2.00
Outreach Materials and Publications	2.00 / 2.00
Outreach Campaign	4.00 / 4.00
Assessing Sustainability Culture	0.00 / 1.00
Employee Educators Program	0.00 / 3.00
Employee Orientation	1.00 / 1.00
Staff Professional Development and Training	1.00 / 2.00

Student Educators Program

Provisional Score

0.00 / 4.00

Responsible Party

Robin Whitney Teaching Assistant Professor College of Arts & Letters

Criteria

Part 1. Percentage of students served by a peer-to-peer, sustainability educators program

Institution engages its students in sustainability outreach and education as measured by the percentage of students served (i.e., directly targeted) by a peer-to-peer educators program.

Part 2. Educator hours per student served by a peer-to-peer program

Institution engages its students in sustainability outreach and education as measured by the ratio of the number of hours worked by trained student educators to the number of students served by a peer-to-peer program.

To earn points for this credit, an institution must coordinate an ongoing, peer-to-peer sustainability outreach and education program for students that is explicitly focused on sustainability. The institution:

- Selects or appoints students to serve as peer educators and formally designates the students as educators (paid and/or volunteer);
- Provides formal training to the student educators in how to conduct peer outreach; and
- Supports the program with financial resources (e.g., by providing an annual budget) and/or administrative coordination.

This credit recognizes ongoing student educator programs that engage students as peers 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 actively participate.

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 the Outreach Campaign and Student Life credits.

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

Number of students enrolled for credit: 8,170

Total number of students served by a peer-to-peer sustainability outreach and education program:

Percentage of students served by a peer-to-peer sustainability outreach and education program: \cap

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

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

A brief description of the student educators program's target audience (1st program):

Number of trained student educators (1st program):

Number of weeks the student educators program is active annually (1st program):

Average or expected number of hours worked weekly per trained student educator (1st program):

Total number of hours worked annually by trained student educators (1st program):

Website URL where information about the student educators program is available (1st program):
Name of the student educators program (2nd program):
A brief description of the student educators program (2nd program):
A brief description of the student educators program's target audience (2nd program):
Number of trained student educators (2nd program):
Number of weeks the student educators program is active annually (2nd program):
Average or expected number of hours worked weekly per trained student educator (2nd program):
Total number of hours worked annually by trained student educators (2nd program):
Website URL where information about the student educators program is available (2nd program):
Name of the student educators program (3rd program):
A brief description of the student educators program (3rd program):
A brief description of the student educators program's target audience (3rd program):
Number of trained student educators (3rd program):
Number of weeks the student educators program is active annually (3rd program):
Average or expected number of hours worked weekly per trained student educator (3rd program):
Total number of hours worked annually by trained student educators (3rd program):
Website URL where information about the student educators program is available (3rd program):
A brief description of all other student peer-to-peer sustainability outreach and education programs:
Number of trained student educators (all other programs):

Number of weeks, on average, the student educators programs are active annually (all other programs):
Average or expected number of hours worked weekly per student educator (all other programs) :
Total number of hours worked annually by trained student educators (all other programs):
Grand total number of hours worked annually by trained student sustainability educators (all programs):
Hours worked annually by trained student sustainability educators per student served by a peer-to-peer program:

Website URL where information about the student sustainability educators programs is available:

Additional documentation to support the submission:

Student Orientation

Criteria

Provisional Score

2.00 / 2.00

Responsible Party

Tony Blazini

Director of Residence Life Residence Life

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., environmental, social, and economic).

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

Are the following students provided an opportunity to participate in orientation activities and programming that prominently include sustainability?:

Yes or No

First-year students

Yes

Transfer students

Yes

Entering graduate students

Yes

Percentage of all 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:

All students receive orientation materials about campus sustainability efforts and how they can create positive change on campus. Additionally, all Graduate Orientation Advisors and Resident Advisors receive training on campus sustainability during their training, with information being passed onto their students. All information is included in student handbooks.

Website URL where information about sustainability in student orientation is available:

Additional documentation to support the submission:

Provisional Score

Responsible Party

Robin Whitney

Teaching Assistant Professor College of Arts & Letters

1.25 / 2.00

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
- Student-run 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 focused on sustainability
- Cultural arts events, installations or performances focused on sustainability
- Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students) that follow Leave No Trace principles
- Sustainability-focused themes chosen for themed semesters, years, or first-year experiences (e.g., choosing a sustainability-focused 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

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 an active student group focused on sustainability?: Yes

Name and a brief description of the active student groups focused on sustainability:

SAVE (Sustainability Activism, Volunteering and Engineering) - SAVE's mission is to promote awareness of and action on environmental issues. SAVE seeks to accomplish this by hosting fun campus-wide, sustainability oriented events and by promoting and participating in green activities in the Hoboken community. In Fall 2017 this group absorbed ESW (Engineers for a Sustainable World) and helps apply the lens of engineering solutions to the mission of SAVE.

SEEPS (Stevens Environmental Engineering Professional Society)

SSC (Stevens Sustainability Coalition), formed early in Fall 2019, is a student-led initiative whose vision is to create a culture of sustainability on campus and in the local community.

Does the institution have a garden, farm, community supported agriculture (CSA) or fishery program, or an urban agriculture project where students are able to gain experience in organic agriculture and sustainable food systems?:

Yes

A brief description of the gardens, farms, community supported agriculture (CSA) or fishery programs, and/or urban agriculture projects:

Wellness Center Community Garden - Students took initiative in designing and planting the new garden behind the Student Wellness Center.

Does the institution have a student-run enterprise that includes sustainability as part of its mission statement or stated purpose?:

No

A brief description of the student-run enterprises:

Does the institution have a sustainable investment fund, green revolving fund, or sustainable microfinance initiative through which students can develop socially, environmentally and fiscally responsible investment and financial skills?:

No

A brief description of the sustainable investment funds, green revolving funds or sustainable microfinance initiatives:

Has the institution hosted a conference, speaker series, symposium, or similar event focused on sustainability during the previous three years that had students as the intended audience?:

Yes

A brief description of the conferences, speaker series, symposia, or similar events focused on sustainability:

The Hugo Neu Corporation Sustainability Seminar Series is a weekly lecture hosting a variety of speakers who focus on a wide range of sustainability issues. The series is sponsored by the Hugo Neu Corporation, and cosponsored by BEM Systems, Brown and Caldwell, Geosyntec Consultants, and H2M Architects and Engineers. It is organized by the Stevens Sustainability Management Master's Program.

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/sustainability-management-masters-program/sustainability-semin

ar-series

.

Has the institution hosted a cultural arts event, installation, or performance focused on sustainability with the previous three years that had students as the intended audience?:

Yes

A brief description of the cultural arts events, installations, or performances focused on sustainability:

Earth Week: Stevens held a series of sustainable events for a week during Earth Week, featuring a terrarium making event, an educational documentary screening, a speaker event led by the CEO of Sun Coffee Roasters, and a monumental Earth Day Celebration event: over 200 attendees enjoyed live music as well as several information booths with representatives from sustainability-focused groups within Stevens and throughout Hoboken. Hoboken's RECYCLE RIGHT campaign: SAVE and the Hoboken Green Team hosted an educational event in the Great Hall of the SC Williams Library on 25 November and 2 December to inform the university community of Hoboken's transition to dual-stream recycling, from single-stream. Representatives from SEEPS were also on hand. Flyers were posted, and magnets distributed; Students in Stevens' off-campus leased housing received the information in the form of PDF versions of the flyers via email.

RecycleMania Sculpture Competition: Students from the Art Club and SAVE hosted an event on March 6, 2019 to create a large sea turtle sculpture from plastic waste. "Plastic Kills" was written at the base of the sculpture and showcased in Babbio Atrium for all students to see.

Does the institution have a wilderness or outdoors program that follow Leave No Trace principles?:

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

Has the institution had a sustainability-focused theme chosen for a themed semester, year, or first-year experience during the previous three years?:

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

Does the institution have a program through which students can learn sustainable life skills?: No

A brief description of the programs through which students can learn sustainable life skills:

Does the institution offer sustainability-focused student employment opportunities?: Yes

A brief description of the sustainability-focused student employment opportunities offered by the institution:

One student is currently employed as an ambassador for the sustainable coffee company that is partnered with the campus dining services.

Does the institution have a graduation pledge through which students pledge to consider social and environmental responsibility in future job and other decisions?:

No

A brief description of the graduation pledge(s):

A brief description of other	co-curricular	sustainability	programs and	initiatives t	that do not	: fall into or	ıе
of the above categories:							

Additional documentation to support the submission:

Provisional Score

Responsible Party
Stacey Greene
AVP

Communications and Marketing

2.00 / 2.00

Criteria

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

- A central sustainability website that consolidates information about the institution's sustainability efforts
- A newsletter or social media platform (e.g., Facebook, Twitter, or interactive blog) that focuses specifically on campus sustainability
- Signage that highlights sustainability features on campus
- · A sustainability walking map or tour
- · A guide for green living and/or incorporating sustainability into the residential experience

This credit is focused on ongoing outreach efforts. Materials and publications designed to promote a specific event or time-limited campaign are excluded and covered by other credits in Campus Engagement.

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

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

Yes

Website URL for the central sustainability website:

https://www.stevens.edu/about-stevens/sustainability

Does the institution have a sustainability newsletter or social media platform that focuses specifically on campus sustainability?:

Yes

A brief description of the sustainability newsletter or social media platform:

Active Instagram and Facebook accounts are maintained by a Stevens group working to establish projects and initiatives that raise environmental awareness and educate the community on the subject of sustainability. URLs:

https://www.instagram.com/stevenssaveclub/

and

https://www.facebook.com/SAVEatSIT/

Does the institution have signage that highlights sustainability features on campus?: Yes

A brief description of the signage that highlights sustainability features on campus:

In conjunction with the sustainability map layer, buildings now have signage within their lobbies listing and describing the same features highlighted on the map.

Does the institution provide a sustainability walking map or tour?: Yes

A brief description of the sustainability walking map or tour:

The new interactive Campus Tours map includes a map layer of sustainability features, with photos and descriptions.

tours.stevens.edu

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

Yes

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

Each year Resident Assistants go through a sustainability module during their training period. During training they receive materials to be shared with all residents offering tips for "green living" and describing Stevens initiatives such as recycling and the bike share program.

A brief description of other comprehensive sustainability outreach materials and publications not covered above:

Additional documentation to support the submission:

Outreach Campaign

Provisional Score

4.00 / 4.00

Responsible Party

Stacey Greene AVP

Communications and Marketing

Criteria

Part 1. Student outreach campaign

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 by students in a course.

Part 2. Employee outreach campaign

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 by 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 dorm or green office rating 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.

Measurable, positive results typically involve reductions in energy, waste or water use, cost savings and/or other benefits. To measure if a campaign yields measurable, positive results, institutions should compare pre-campaign performance to performance during or after the campaign. Increased awareness or increased membership of a mailing list or group is not sufficient in the absence of other positive results.

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

Has the institution held a sustainability-related outreach campaign during the previous three years that was directed at students and yielded measurable, positive results in advancing sustainability?:

Yes

Has the institution held a sustainability-related outreach campaign during the previous three years that was directed at employees and yielded measurable, positive results in advancing sustainability?:

Yes

Name of the campaign:

RecycleMania

A brief description of the campaign:

Stevens participated in RecycleMania 2019. RecycleMania is a friendly competition and benchmarking tool to promote waste reduction activities on college campuses. Over an 8-week period each spring, Stevens reported the amount of recycling and trash collected each week and were then ranked in various categories based on who recycles the most on a per capita basis, as well as which schools have the best recycling rate as a percentage of total waste and which schools generate the least amount of combined trash and recycling. With each week's updated ranking, participating schools follow their performance against other colleges and use the results to rally their campus to reduce and recycle more.

Stevens student affairs, facilities and campus operations and communications and marketing worked together to promote awareness and engagement in the competition to help motivate positive behaviors among the community. News stories, social media posts, and student group efforts supported the initiative.

Link to story promotion, which was shared on social channels and promoted via on-campus displays:

https://www.stevens.edu/news/let-recycling-games-begin-stevens-ready-recyclemania-2019

(screen grab of Facebook post available)

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

Results:

Summary report of Stevens' achievement in the "per capita classic" in which the university ranked 16th nationwide and 5th among universities based on Carnegie Classification, coming in at 33.484 pounds recycled per capita.

Generate attention and support for campus recycling programs.

Encourage colleges to measure and benchmark recycling activity in their effort to improve their programs over time. Have a fair and friendly competition.

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

Motivate students and staff to increase recycling efforts and reduce waste generation.

Additional documentation to support the submission:

A brief description of other sustainability-related outreach campaigns:

General Impacts:

Data source(s) and notes about the submission:

https://recyclesearch.com/profile/recyclemania/report/330?node_id=&competition_category=rmania_participate_per_cap_class&group_by=rank&pds_kgs=lbs&generate=1

Provisional Score

Responsible Party
Stacey Greene
AVP

Communications and Marketing

0.00 / 1.00

Criteria

Institution conducts an assessment of campus sustainability culture. The cultural assessment focuses on sustainability values, behaviors, and beliefs, and may also address awareness of campus sustainability initiatives.

An assessment that covers a single sustainability topic (e.g., a transportation survey) does not count in the absence of a more comprehensive cultural assessment. Likewise, assessments that exclusively address sustainability literacy (i.e., knowledge of sustainability topics and challenges) are excluded. Literacy assessments are recognized in the Sustainability Literacy Assessment credit in Curriculum.

Participation by U.S. and Canadian institutions in the Sustainability Education Consortium (NSSE) qualifies as a cultural assessment.

An institution may use a single instrument that addresses sustainability literacy, culture, and/or engagement to meet the criteria for this credit if a substantive portion of the assessment (e.g., at least ten questions or a third of the assessment) focuses on sustainability values, behaviors, and/or beliefs.

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

Does the institution conduct an assessment of sustainability culture?:

Which of the following best describes the cultural assessment? The assessment is administered to::

Which of the following best describes the structure of the cultural assessment? The assessment is administered::

A brief description of how and when the cultural assessment(s) were developed and/or adopted:

A copy or sample of the questions related to sustainability culture:

A sample of the questions related to sustainability culture or the website URL where the assessment tool is available:

A brief description of how representative samples were reached (if applicable) and how the cultural assessment is administered:

A brief summary of results from the cultural assessment:

Website URL where information about the assessment of sustainability culture is available:

Additional documentation to support the submission:

Employee Educators Program

Provisional Score

0.00 / 3.00

Responsible Party

Sara Klein AVP Student Affairs

Criteria

Part 1. Percentage of employees served by a peer-to-peer educators program

Institution engages its employees in sustainability outreach and education as measured by the percentage of employees served (i.e., directly targeted) by a peer-to-peer educators program.

Part 2. Educator hours per employee served by a peer-to-peer program

Institution engages its employees in sustainability outreach and education as measured by the ratio of the number of hours worked by trained employee educators to the number of employees served by a peer-to-peer program.

To earn points for this credit, an institution must administer or oversee an ongoing, peer-to-peer sustainability outreach and education program for employees. The institution:

- Selects or appoints employees to serve as peer educators and formally designates the employees as educators (paid and/or volunteer);
- Provides formal training to the employee educators in how to conduct peer outreach; AND
- Supports the program with financial resources (e.g., by providing an annual budget) and/or administrative coordination.

To qualify, a program must be explicitly focused on sustainability. The peer educators must also represent diverse areas of campus; the outreach and education efforts of sustainability staff or a sustainability office do not count in the absence of a broader network of peer educators.

This credit recognizes ongoing programs that engage employees as peers 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 actively participate.

Ongoing green office certification programs and the equivalent may count for this credit if they include formally designated and trained employee educators (e.g., "green leaders").

Employee orientation activities and training and/or professional development opportunities in sustainability for staff are excluded from this credit. These activities are covered in the Employee Orientation and Staff Professional Development and Training credits.

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

Total number of employees:

1,202

Total number of employees served by a peer-to-peer sustainability outreach and education program: $^{\circ}$

Percentage of employees served by a peer-to-peer sustainability outreach and education program:

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

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

A brief description of the employee educators program's target audience (1st program):

Number of trained employee educators (1st program):

Number of weeks the employee educators program is active annually (1st program):

Average or expected number of hours worked weekly per trained employee educator (1st program):
Total number of hours worked annually by trained employee educators (1st program):
Website URL where information about the employee educators program is available (1st program) :
Name of the employee educators program (2nd program):
A brief description of the employee educators program (2nd program):
A brief description of the employee educators program's target audience (2nd program):
Number of trained employee educators (2nd program):
Number of weeks the employee educators program is active annually (2nd program):
Average or expected number of hours worked weekly per trained employee educator (2nd program):
Total number of hours worked annually by trained employee educators (2nd program):
Website URL where information about the employee educators program is available (2nd program):
A brief description of all other employee peer-to-peer sustainability outreach and education programs:
Number of trained employee educators (all other programs):
Number of weeks, on average, the employee educators programs are active annually (all other programs):
Average or expected number of hours worked weekly per trained employee educator (all other programs):
Total number of hours worked annually by trained employee educators (all other programs):
Grand total number of hours worked annually by trained employee educators (all programs):
Hours worked annually by trained employee sustainability educators per employee served by a peer-to-peer program: $\ensuremath{\text{0}}$
Website URL where information about the employee sustainability educators programs is available:

Additional documentation to support the submission:

Employee Orientation

Provisional Score

1.00 / 1.00

Responsible Party Maria Ouckama AVP Human Resources

Criteria

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

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

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:

Orientation materials are included in every new hire package. Topics included are:
Sustainable Transportation/Commuting
On-Campus Recycling
Energy Conservation
Water Conservation
Renewable Energy

Website URL where information about sustainability in employee orientation is available:

Additional documentation to support the submission:

Staff Professional Development and Training

Provisional Score

1.00 / 2.00

Responsible Party Maria Ouckama AVP Human Resources

Criteria

Part 1. Availability of professional development and training in sustainability

Institution makes available professional development and training opportunities in sustainability to all non-academic staff at least once per year.

Part 2. Participation in professional development and training in sustainability

Institution's regular (full-time and part-time) non-academic staff participate in sustainability professional development and training opportunities that are either provided or supported by the institution.

For both Part 1 and Part 2 of this credit, the opportunities may be provided internally (e.g., by departments or by the sustainability office) or externally as long as they are specific to sustainability. The opportunities include:

- · Training to integrate sustainability knowledge and skills into the workplace;
- · Lifelong learning and continuing education in sustainability; and/or
- Sustainability accreditation and credential maintenance (e.g., LEED AP/GA).

This credit focuses on formal professional development and training opportunities, for example as delivered by trainers, managers, sustainability staff, and external organizations. Peer-to-peer educator programs and employee outreach campaigns are recognized in the Employee Educators Program and Outreach Campaign credits respectively, and should only be reported in this credit if such programs are formally recognized by the institution as professional development and training, for example in employee performance reviews.

For an external professional development or training opportunity to count, the institution must offer financial or other support (e.g., payment, reimbursement, or subsidy).

This credit applies to non-academic staff members only; it does not include academic staff, i.e., faculty members. Faculty professional development in sustainability is recognized in the Incentives for Developing Courses credit in Curriculum.

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

Does the institution make available professional development and training opportunities in sustainability to all non-academic staff at least once per year?:

Yes

Does the institution wish to pursue Part 2 of this credit (the rate of staff participation in sustainability professional development and training)?:

No

Estimated percentage of regular, non-academic staff that participates annually in sustainability professional development and training:

A brief description of any internal sustainability professional development and training opportunities that the institution makes available to non-academic staff:

Staff have access to the Lorman webinars learning portal, which includes some modules on sustainability/ environmental topics. Information is also available on the campus intranet regarding free education resources offered by Schneider Electric Energy University, free LEED GA/AP test prep resources, etc.

A brief description of any external professional development and training opportunities in sustainability that are supported by the institution :

Estimated percentage of regular non-academic staff for which sustainability is included in performance reviews:

A brief description of how sustainability is included in staff performance reviews :
Website URL where information about staff professional development and training in sustainability is available:

Additional documentation to support the submission:

Public Engagement

Points Claimed 8.92
Points Available 15.00

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, nonprofit 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	Points
Community Partnerships	3.00 / 3.00
Inter-Campus Collaboration	3.00 / 3.00
Continuing Education	Not Applicable
Community Service	0.92 / 5.00
Participation in Public Policy	2.00 / 2.00
Trademark Licensing	0.00 / 2.00

Provisional Score

3.00 / 3.00

Responsible Party

Mercedes McKay Deputy Chief of Staff Office of the President

Criteria

Institution has one or more formal community partnership(s) with school districts, government agencies, private sector organizations, civil society organizations, and/or other external entities to work together to advance sustainability on a regional, municipal, community, or neighborhood scale.

This may be demonstrated by having an active community partnership that addresses sustainability challenges in the broader community and meets at least two of the following criteria. The partnership is:

- Financially or materially supported by the institution.
- Multi-year or ongoing (rather than a short-term project or event).
- Sustainability-focused, i.e., its primary and explicit focus is on the concept of sustainability, the interdependence of ecological and social/economic systems, or a major sustainability challenge.
- Inclusive and participatory, i.e., underrepresented groups and/or vulnerable populations are engaged as equal partners in strategic planning, decision-making, implementation, and review.

This credit is inclusive of partnerships with local and distant communities.

Community-based research and engaged scholarship around sustainability challenges 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 partnerships and contribute toward sustainability, they are covered in the Community Service credit and should not be included in this credit.

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

Name of the institution's formal community partnership to advance sustainability:

Green Retrofit for Stormwater Best Management Practices for Pollution Prevention in Urban Coastal Communities in New Jersey

Does the institution provide financial or material support for the partnership?:

Yes

Which of the following best describes the partnership timeframe?:

Multi-year or ongoing

Which of the following best describes the partnership?:

Sustainability-focused

Are underrepresented groups and/or vulnerable populations engaged as equal partners? :

Yes

A brief description of the institution's formal community partnership to advance sustainability:

The Town of Secaucus and Stevens are partners on a research project funded by the National Ocean and Atmospheric Administration (NOAA) that explores the possibilities of retrofitting green infrastructures with green technologies to make Secaucus more resilient to extreme climate events and to improve overall environmental sustainability efforts of the town. Dr. D. Sarkar, a professor of environmental engineering at Stevens is the Principal Investigator of this grant. Below are the 4 major objectives of the project:

1. Retrofit an existing bioretention system with green-material-coated mulch to remove phosphorus and metals.

- 2. Retrofit storm drains (that receive high concentrations of metals and hydrocarbons from automobiles) with catchbasin inserts with green filter media.
- 3. In Retrofit 3, a floating treatment wetland with hydroponically-grown vetiver grass (Chrysopogon zizanioides), a non-invasive, high-biomass nutrient- and metal-hyperaccumulator with massive root system will be optimized and installed in a stormwater retention pond next to a highway for water quality improvement.
- 4. A survey instrument to collect opinion data will be implemented to evaluate the potential of broad-scale future application of these green technologies in Secaucus and similar urban coastal communities to make them more sustainable and resilient to extreme climate events.

Name of the institution's formal community partnership to advance sustainability (2nd partnership): Stevens Sustainability Coalition

Does the institution provide financial or material support for the partnership? (2nd partnership): Yes

Which of the following best describes the partnership timeframe? (2nd partnership): Multi-year or ongoing

Which of the following best describes the partnership's sustainability focus? (2nd partnership): Sustainability-focused

Are underrepresented groups and/or vulnerable populations engaged as equal partners? (2nd partnership):

Yes

A brief description of the institution's formal community partnership to advance sustainability (2nd partnership):

The Stevens Sustainability Coalition (SSC) is a student-led initiative whose vision is to create a culture of sustainability on campus and in the local community. Both an organization and a movement, the SSC holds forums that promote open, transparent, and collaborative discussion among students, staff, faculty, and local community members on sustainability issues both on and off-campus. Events also include panels on environmental and social-environmental issues, held by subject matter experts, as well as innovation expos that challenge people to arrive at solutions to sustainability problems. The SSC has partnered with the City of Hoboken to provide technical and on-the-ground support for the City's recycling education program. The City has changed from single to dual stream recycling which has been problematic because residents do not understand the difference. The SSC is working to design and implement a citizen education campaign and will enlist other Stevens student organizations that have a sustainability focus to assist with this outreach effort.

Name of the institution's formal community partnership to advance sustainability (3rd partnership): Hugo Neu Corporation Sustainability Seminar Series

Does the institution provide financial or material support for the partnership? (3rd partnership): Yes

Which of the following best describes the partnership timeframe? (3rd partnership): Multi-year or ongoing

Which of the following best describes the partnership? (3rd partnership): Sustainability-focused

Are underrepresented groups and/or vulnerable populations engaged as equal partners? (3rd partnership):

Yes

A brief description of the institution's formal community partnership to advance sustainability (3rd partnership):

The Hugo Neu Corporation Sustainability Seminar Series is a weekly lecture hosting a variety of speakers who focus on a wide range of sustainability issues. The series is sponsored by the Hugo Neu Corporation, and cosponsored by BEM Systems, Brown and Caldwell, Geosyntec Consultants, and H2M Architects and Engineers. It is organized by the Stevens Sustainability Management Master's Program. Please see

https://www.stevens.edu/schaefer-school-engineering-science/departments/civil-environmental-oce an-engineering/graduate-programs/sustainability-management-masters-program/sustainability-semin ar-series

A brief description of the institution's other community partnerships to advance sustainability:

A team of Stevens graduate students developed a Sustainability Action Plan for the city of Jersey City, NJ as part of their capstone project in sustainability management in 2019. In 2018, Jersey City launched the Office of Sustainability to coordinate sustainability initiatives across all government departments and to provide a holistic view for how Jersey City will operate in the future. The Sustainability Action Plan identifies four key focus areas and accompanying strategies that are necessary for the City to pursue a sustainable, greener future. The expectation is that the Sustainability Action Plan will be updated regularly to stay relevant to current concerns from residents, businesses, and other stakeholders.

Website URL where information about the institution's community partnerships to advance sustainability is available:

Additional documentation to support the submission:

STARS_Community_Partnerships_Inventory_Template_Completed.xlsx

Provisional Score	Responsible Party
	Mercedes McKay
3.00 / 3.00	Deputy Chief of Staff
	Office of the President

Criteria

Institution collaborates with other colleges and universities in one or more of the following ways to support and help build the campus sustainability community. The institution:

- Is a member of a national or international higher education sustainability network.
- · Actively participates in a regional, state/provincial, or local higher education sustainability network.
- Has presented at a higher education sustainability conference during the previous year.
- Has submitted a case study or the equivalent during the previous year to an external higher education sustainability resource center (e.g., AASHE's Campus Sustainability Hub or EAUC's Sustainability Exchange) or awards program.
- Has had employees or students serving on a board or committee of an external higher education sustainability network or conference during the previous three years.
- Has an ongoing mentoring relationship with another institution through which it assists the institution with its sustainability reporting and/or the development of its sustainability program.
- Has had employees or students serving as peer reviewers of another institution's sustainability data (e.g., GHG emissions or course inventory) and/or STARS submission during the previous three years.

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

Is the institution currently a member of a national or international higher education sustainability network?:

Yes

The name of the national or international sustainability network(s):

Association for the Advancement of Sustainability in Higher Education

Does the institution actively participate in a regional, state/provincial, or local higher education sustainability network?:

Yes

The name of the regional, state/provincial or local sustainability network(s):

New Jersey Higher Education Partnership for Sustainability (NJHEPS)

Has the institution presented at a higher education sustainability conference during the previous year?: Yes

A list or brief description of the conference(s) and presentation(s):

Stevens' students and professors routinely make numerous presentations in sustainability-oriented conferences. Three example presentations in 2018-19 include:

Sarkar, D. (Presenter), Smart Cities - Building the Future, "Invited Presentation in Session: Solving Environmental Challenges in Smart Cities," Princeton University, Princeton, NJ (2019).

🖾 Na Nagara, S. (Presenter), Sarkar, D. (Author), Annual Meeting of Association for Environmental Health and Sciences, Amherst, MA. "Field Performance of a Low-cost, "Green" Filter Media: Metals, Sediments, and Hydrocarbons Removal," (2018).

🖾 Sidhu, V (Presenter)., Sarkar, D. (Author), and Barrett, K.R. New Jersey Water Environment Association 103rd Annual Conference, Atlantic City, NJ. "Field study on removal of nitrogen and phosphorus by vegetated plots with soils amended with water-treatment residuals." (2018).

Has the institution submitted a case study during the previous year to an external higher education sustainability resource center or awards program?:

Yes

A list or brief description of the sustainability resource center or awards program and submission(s):

A submission was made to the WSP Design Competition organized by ASCE-EWRI (American Society of Civil Engineers – Environmental and Water Resources Institute) by a Stevens student team comprised of 4 seniors: Rami Kammourh, Ali Hameed, Aldin Llolla and Mitchell Bollettieri. Title of their submission was "Greenifying the Stevens North Campus." The team was ranked one of the Top 3 and was invited to present in the 2019 World Environmental and Water Resources Congress in Pittsburgh, PA, May 19-23.

Has the institution had employees or students serving on a board or committee of a sustainability network or conference during the previous three years?:

Yes

A list or brief description of the board or committee appointment(s):

Association for the Advancement of Sustainability in Higher Education, Advisory Council: Dr. Dibyendu Sarkar, Professor of Environmental Engineering

Association for Environmental Health and Sciences Foundation, Science Advisory Board: Dr. Dibyendu Sarkar, Professor of Environmental Engineering

Delaware River Basin Commission, Toxics Advisory Committee: Dr. Dibyendu Sarkar, Professor of Environmental Engineering

Department of Energy Better Buildings Alliance - Higher Education Steering Committee: Dr. Gregg Vesonder, Industry Professor and Director, Research, Systems and Software Division

Does the institution have an ongoing mentoring relationship with another institution through which it assists the institution with its sustainability reporting and/or the development of its sustainability program?:

Yes

A brief description of the mentoring relationship and activities:

- Secaucus School District Stevens provided local school students guidance and mentoring on classroom sustainability projects. One recent project conducted by Stevens' Sustainability Management MS student, Jassimran Oberoi provided an analysis of food waste composting for Secaucus High School. This project contributed to Jassimran's graduate capstone experience in Spring 2019.
- Hoboken Charter School Stevens' Environmental Engineering PhD students provided local middle school students guidance and mentoring on classroom sustainability projects. One recent project involved analyzing lead levels in water collected from Hoboken restaurants in Spring 2019.

Has the institution had employees or students serving as peer reviewers of another institution's sustainability data and/or STARS submission during the previous three years?:

A brief description of the peer review activities:

Jason Mikula, a student in Stevens' Sustainability Management MS program, was part of a team that coordinated a comprehensive Energy Savings Improvement Program (ESIP) for the Delran School District of NJ that comprises 4 schools in Delran Township. The project included lighting retrofits, mechanical and electrical equipment upgrades, solar panel installations, and several more energy conservation measures. This project contributed to Jason's graduate capstone experience in Spring 2019.

A brief description of other inter-campus co	llaborative efforts around	sustainability durin	ng the previous
year :			

Website URL where information about the institution's inter-campus collaborations is available:

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Additional documentation to support the submission:

Continuing Education

Responsible Party

Keith Sheppard
Professor & Associate Dean of Engineering & Science
Schaefer School of Engineering & Science

Criteria

Part 1. Continuing education courses in sustainability

Institution's offers continuing education courses that are sustainability-focused or sustainability-inclusive (see Standards and Terms).

Required documentation

Institution must provide an inventory conducted during the previous three years to identify its continuing education sustainability course offerings and describe for current and prospective students how each course addresses sustainability. For each course, the inventory must include:

- The title and department (or equivalent) of the course.
- A brief course description or rationale explaining why the course is included that references sustainability, the interdependence of ecological and social/economic systems, or a sustainability challenge.

Courses for which partial or incomplete information is provided may not be counted toward earning points for this credit. 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.

Part 2. Sustainability-focused certificate program

Institution has at least one sustainability-focused certificate program through its continuing education or extension department (or the equivalent).

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

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

Institution does not have a formal continuing education or community education program.

Community Service

Provisional Score

0.92 / 5.00

Responsible Party

Trina BallantyneDean of Residence Life
Residence Life

Criteria

Part 1. Percentage of students participating in community service

Institution engages i	ts students in communi	v service, as meas	sured by the percei	ntage of students who	participate.
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Part 2. Community service hours per student

Institution engages students in community service, as measured by the average hours contributed per student per year.

Part 3. Employee community service program

Institution has a formal program to support employee volunteering during regular work hours, for example by offering paid time off for volunteering or by sponsoring an organized service event for which employees are compensated.

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

Does the institution wish to pursue Part 1 of this credit (student participation in community service)?: Yes

Total number of students:

6,019

Number of students engaged in community service:

1.455

Percentage of students engaged in community service:

24.17

Does the institution wish to pursue Part 2 of this credit (community service hours)?:

Yes

Total number of student community service hours contributed annually:

20,212

Number of annual community service hours contributed per student :

3.36

Does the institution have a formal program to support employee volunteering during regular work hours?:

Nο

A brief description of the institution's program to support employee volunteering:

Does the institution track the number of employee community service hours contributed through programs it sponsors?:

Yes

Total number of employee community service hours contributed annually through programs sponsored by the institution:

150

Website URL where information about the institution's community service programs is available:

Additional documentation to support the submission:

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Provisional Score

2.00 / 2.00

Responsible Party
Mercedes McKay
Deputy Chief of Staff

Office of the President

Criteria

Institution advocates for public policies that support campus sustainability or that otherwise advance sustainability. The advocacy may take place at one or more of the following levels:

- · Municipal/local
- · State/provincial/regional
- National
- International

The policy advocacy must have the implicit or explicit support of the institution's top administrators and/or governing bodies to count. For example, advocacy by administrators, students, or employees who are acting as representatives of the institution or its governance bodies may count. Advocacy by students or employees conducted in a personal capacity does not count unless it is formally endorsed at the institutional level.

Examples of advocacy efforts include supporting or endorsing legislation, ordinances, and public policies that advance sustainability; active participation in campaigns aiming to change public policy; and discussions with legislators in regard to the above.

This credit acknowledges institutions that advocate for policy changes and legislation to advance sustainability broadly. Advocacy efforts that are made exclusively to advance the institution's interests or projects may not be counted. For example, advocating for government funding for campus sustainability may be counted, whereas lobbying for the institution to receive funds that have already been appropriated may not.

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

Does the institution advocate for public policies that support campus sustainability or that otherwise advance sustainability at the municipal/local level?:

Yes

A brief description of how the institution engages in public policy advocacy for sustainability at the municipal/local level:

Stevens developed and supported a local zoning ordinance that was adopted by the City of Hoboken in 2018 that included a Transportation Demand Management plan and requirements for green infrastructure to mitigate storm water issues in this urban location.

Stevens currently advocates for local bike share and ride sharing programs with the City of Hoboken for its employees in order to reduce automobile usage and parking needs on campus. Stevens has shown their support for this local public policy aimed at reducing automobile usage in cities by agreeing to have bicycle docking stations installed and local car rentals available on their campus. Members of Stevens' community – students, faculty and staff – also receive incentives to use ride-sharing programs. Promotion of these programs by Stevens also supports engagement of the greater Hoboken community. Stevens also advocates for electronic recycling programs in partnership with the City of Hoboken and periodically holds recycling events on its campus for the Hoboken community.

Does the institution advocate for public policies that support campus sustainability or that otherwise advance sustainability at the state/provincial/regional level?:

A brief description of how the institution engages in public policy advocacy for sustainability at the state/provincial/regional level:

Stevens ACES: In order for sustainability research to reach its full potential, it is necessary that those individuals participating in the research come from diverse backgrounds. Stevens has been advocating for legislation in New Jersey that would create the New Jersey ACES (Accessing Careers in Engineering and Science) program that would create opportunities for underrepresented students from underserved communities to participate in precollege summer programs and undergraduate programs in STEM at the research universities in New Jersey through a collaboration between the state, the universities, and corporations. The legislation has already passed the New Jersey state Senate and Stevens is continuing to advocate for its passage in the State Assembly and for it to be signed and funded by the Governor.

Stigma Free Campus: In 2016, accompanied by State Senator and former Governor Richard Codey, Stevens announced it would be a "Stigma Free" Campus. The "Stigma Free" campaign was developed by the Codey Fund for Mental Health with the goal having municipalities and college campuses pledge to promote public awareness, create conversations, and work towards overcoming stigmas, stereotyping, discrimination, and removing any barriers to recovery. Stevens Institute of Technology is proud to be "Stigma Free" and encourages all students to attend and pursue a STEM degree, helping to further the possibility of diversity in sustainability research in all walks of life, including those with different mental health needs.

Edison Innovation Fund: In 2018, Stevens Institute of Technology advocated strongly for the passage of S-1921/ A-1930 which would create the Edison Innovation Science and Technology Fund to provide grants to colleges and universities in New Jersey with a goal to strengthen industry-university research collaborations and create the increased potential for attracting federal funding and private investment. The fund would award grants to public and private institutions of higher education engaged in research projects and invest in programs that advance science, technology, engineering, or mathematics in fields of strategic importance, including sustainability innovation.

The Commission on Science, Innovation and Technology, created in 2018, was also supported and advocated for by Stevens Institute of Technology. This Commission as established to exercise oversight for the responsibility of implementing, evaluating and formulating long-range plans and programs for science, innovation and technology in New Jersey. The Commission recognizes the role and the importance of innovation developed at the State's institutions of higher education and businesses to the economy of this State. Stevens President Nariman Farvardin now sits as a member of the Commission and works collaboratively with other university, industry and public representatives to best develop programs for our state.

In September of 2017, the Assembly Transportation & Independent Authorities Committee hosted a committee hearing on the campus of Stevens Institute of Technology. The Committee did not take legislative action at the hearing but received testimony from industry experts and residents regarding the operation of ferry services between New Jersey and Manhattan. The proceedings began with a welcome by Stevens President Nariman Farvardin and were concluded with a tour of the Stevens Living Laboratory, a laboratory that hosts a rain garden, multiple bioretention planters and multiple green roof setups in order to create different forms of bioretention solutions, for five of the committee members and their staffs.

Stevens Institute of Technology is committed to fostering conversations with elected officials in New Jersey from the City Council of Hoboken to state legislators. Over the years, Stevens has invited these elected officials to tour the campus and specifically learn about the research being done at our Davidson Laboratory, a renowned marine research laboratory that supports forecasting for extreme weather events, coastal resilience and marine hydrodynamics. Stevens shares its research with elected officials to ensure they have the background and education necessary to craft public policy that supports this kind of research and puts New Jersey in the position to be a haven for innovative discovery in this field.

Post-Superstorm Sandy Resiliency Efforts: Since Superstorm Sandy in 2012, Stevens has advocated for legislation to increase dedicated funding to the Shore Protection Fund from \$25 million to \$50 million annually. This legislation has not advanced due to State Budget constraints. Stevens continues to advocate for the enactment of S-1614/A-825 to provide for this wise investment in preparing New Jersey for future storms and help to avoid the devastation that has occurred during weather-events such as Superstorm Sandy.

Through its "Hugo Neu Corporation Sustainability Seminar Series," Stevens currently advocates for state and regional sustainability policies by featuring higher education, corporate, and government speakers on sustainability-focused topics in this weekly lecture series.

Stevens Institute of Technology also holds an Annual Innovation Expo that features research projects on sustainability developed by our very own senior class. Elected officials are invited to this event as well and are

exposed to innovative ideas developed by the youth of our state, which can highlight the fact that it is not only important for legislation to support our seasoned researchers, but also to support our young, up-and-coming sustainability activists who are highly motivated to make a difference in the world.

Does the institution advocate for public policies that support campus sustainability or that otherwise advance sustainability at the national level?:

Yes

A brief description of how the institution engages in public policy advocacy for sustainability at the national level:

Stevens periodically meets with U.S. Senators, Congressional Representatives, and agencies in Washington DC to advocate for research programs that encompass sustainability. Stevens is a member of the Coalition for National Science Funding (CNSF), an alliance of professional organizations, universities, and businesses united by a concern for the future vitality of the national science, mathematics, and engineering enterprise. Stevens participates in its annual Capitol Hill Exhibition and Reception designed to showcase current research to policy makers on Capitol Hill.

Does the institution advocate for public policies that support campus sustainability or that otherwise advance sustainability at the international level?:

A brief description of how the institution engages in public policy advocacy for sustainability at the international level:

A brief description of other political positions the institution has taken during the previous three years (if applicable):

A brief description of political donations the institution made during the previous three years (if applicable):

Website URL where information about the institution's sustainability advocacy efforts is available:

Additional documentation to support the submission:

Provisional Score

0.00 / 2.00

Responsible Party
Maria Ouckama
AVP
Human Resources

Criteria

Institution ensures that apparel bearing its name/logo is produced under fair working conditions by:

- Maintaining current membership in the Worker Rights Consortium (WRC), the Fair Labor Association (FLA), or (for
 institutions outside the U.S., Canada, and the U.K.), an equivalent independent monitoring and verification
 organization that has been approved by AASHE; OR
- Adopting a labor rights code of conduct in its licensing agreements with licensees who produce its logo apparel without maintaining institutional membership in an independent monitoring and verification organization.

To qualify, a labor rights code of conduct must be consistent in all respects with the WRC Model Code of Conduct, the FLA Workplace Code of Conduct, or the International Labour Organisation (ILO) fundamental Conventions.

The companies, suppliers, and licensees that an institution works with may also participate in monitoring and verification organizations, thereby helping to ensure fair labor practices are applied throughout the supply chain, however these activities are not sufficient to earn points in this credit.

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

Is the institution a member of the Worker Rights Consortium (WRC)?: No

Is the institution currently a member of the Fair Labor Association (FLA)? : No

Is the institution currently a member of an equivalent independent monitoring and verification organization approved by AASHE?:

No

A brief description of the independent monitoring and verification organization:

Has the institution adopted a labor rights code of conduct in its licensing agreements with the licensees who produce its logo apparel?:

A copy of the labor rights code of conduct for licensees:

The labor rights code of conduct for licensees:

Website URL where information about the institution's trademark licensing initiatives is available:

Additional documentation to support the submission:

Operations

Air & Climate

Points Claimed 8.85
Points Available 11.00

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	Points
Emissions Inventory and Disclosure	2.15 / 3.00
Greenhouse Gas Emissions	6.70 / 8.00

Emissions Inventory and Disclosure

Provisional Score

2.15 / 3.00

Responsible Party

Gotham 360 Gotham360 Consultant

Consultant Facilities Operations

Criteria

Part 1. Greenhouse gas emissions inventory

Institution has completed an inventory to quantify its Scope 1 and Scope 2 greenhouse gas (GHG) emissions. The inventory may also:

- Include Scope 3 GHG emissions from one or more of the following sources:
 - Business travel (the transportation of employees and students for institution-related activities in vehicles owned or operated by third parties)
 - · Commuting (regular commuting to and from the institution by students and employees)
 - Purchased goods and services (e.g., food and paper)
 - Capital goods (e.g., equipment, machinery, buildings, facilities, and vehicles)
 - Fuel- and energy-related activities not included in Scope 1 or 2
 - Waste generated in operations (solid waste and/or wastewater disposal/treatment in facilities owned or operated by third parties)
 - Other sources not included in Scope 1 or 2 (e.g., student travel to/from home)
- Have been verified by an independent, external third party or validated internally by personnel who are independent of the GHG accounting and reporting process.

Part 2. Air pollutant emissions inventory

Institution has completed an inventory to quantify its air pollutant emissions. The inventory includes at least nitrogen oxides (NOx) and sulfur oxides (SOx). It may also include other standard categories of toxic air emissions - e.g., carbon monoxide (CO), particulate matter (PM), hazardous air pollutants (HAPs), and so on - from one or more of the following:

- Major stationary sources (e.g., combustion-based energy plants, boilers, furnaces, and generators)
- Area sources (minor stationary sources such as paint booths, book preservation operations, and wastewater treatment plants)
- Mobile sources (e.g., campus fleet, other motorized vehicles, and lawn care equipment)
- Commuting
- · Off-site electricity production

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

Has the institution conducted a GHG emissions inventory within the previous three years that includes all Scope 1 and 2 emissions? :

Yes

A copy of the most recent GHG emissions inventory:

GHG Calculator.xlsm

A brief description of the methodology and/or tool used to complete the GHG emissions inventory:

We used the UNH SIMAP.

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?: Yes

A brief description of the GHG inventory verification process:

Data was verified by third party energy and sustainability consultant.

Documentation to support the GHG inventory verification process:

Gross Scope 1 GHG emissions, performance year:

Weight in MTCO2e

Stationary combustion 4,252.39 Metric Tons of CO2 Equivalent

Other sources (mobile combustion, process emissions, fugitive emissions) 0 Metric Tons of CO2 Equivalent

Total gross Scope 1 GHG emissions, performance year:

4,252.39 Metric Tons of CO2 Equivalent

Gross Scope 2 GHG emissions, performance year (market-based):

	Weight in MTCO2e
Imported electricity	101.33 Metric Tons of CO2 Equivalent
Imported thermal energy	0 Metric Tons of CO2 Equivalent

Total gross Scope 2 GHG emissions, performance year:

101.33 Metric Tons of CO2 Equivalent

Gross GHG emissions from biogenic sources, performance year:

0 Metric Tons of CO2 Equivalent

Does the GHG emissions inventory include Scope 3 emissions from the following sources?:

	Yes or No	Weight in MTCO2e
Business travel	No	
Commuting	No	
Purchased goods and services	No	
Capital goods	No	
Fuel- and energy-related activities not included in Scope 1 or Scope 2	Yes	440.78 Metric Tons of CO2 Equivalent
Waste generated in operations	No	
Other sources	No	

Total Scope 3 GHG emissions, performance year:

440.78 Metric Tons of CO2 Equivalent

A brief description of how the institution accounted for its Scope 3 emissions:

Line losses from scope 2 emissions calculated by SIMAP.

Has the institution completed an inventory within the previous three years to quantify its air pollutant emissions?:

Yes

Annual weight of emissions for::

	Weight of Emissions
Nitrogen oxides (NOx)	4.94 Tons
Sulfur oxides (SOx)	0.03 <i>Tons</i>
Carbon monoxide (CO)	5.01 <i>Tons</i>
Particulate matter (PM)	0.70 <i>Tons</i>
Ozone (O3)	
Lead (Pb)	
Hazardous air pollutants (HAPs)	
Ozone-depleting compounds (ODCs)	

Other standard categories of air emissions identified in permits and/or regulations 1.35 *Tons*

Do the air pollutant emissions figures provided include the following sources?:

	Yes or No
Major stationary sources	Yes
Area sources	No
Mobile sources	No
Commuting	No
Off-site electricity production	No

A brief description of the methodology(ies) the institution used to complete its air emissions inventory:

Emissions for onsite boilers calculated by consultant, TRC, for NJDEP permitting.

Gross Scope 2 GHG emissions from purchased electricity (location-based):

Gross Scope 2 GHG emissions from imported thermal energy (location-based):

Website URL where information about the institution's emissions inventories is available:

Additional documentation to support the submission:

Greenhouse Gas Emissions

Provisional Score

6.70 / 8.00

Responsible Party

Gotham 360 Gotham360 Consultant

Consultant Facilities Operations

Criteria

Part 1. GHG emissions per person

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

Part 2. GHG emissions per unit of floor area

Institution's annual adjusted net Scope 1 and Scope 2 GHG emissions are less than the minimum performance threshold of 0.215 metric tons of carbon dioxide equivalent (MTCO2e) per gross square metre (0.02 MTCO2e per gross square foot) of floor area.

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 (see Standards and Terms).

Carbon sinks

For this credit, the following carbon sinks may be counted:

- · Third-party verified, purchased carbon offsets
- Institution-catalyzed carbon offsets (popularly known as "local offsets")
- Carbon storage from on-site composting. The compost may be produced off-site, but must originate from on-site materials and be returned to the campus for use as a soil amendment.

Purchased carbon offsets that have not been third-party verified do not count. Consistent with the Sustainability Indicator Management & Analysis Platform (SIMAP) and relevant protocols from The Offset Network, non-additional sequestration does not count, but may be reported in the optional reporting field provided.

Scope 2 GHG emissions totals should include accounting for any contractual procurement and sales/transfer of renewable energy, e.g., Renewable Energy Certificates (RECs), Guarantees of Origin (GOs), and International RECs (I-RECs). Such products may not be counted as carbon offsets.

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

Gross Scope 1 and Scope 2 greenhouse gas (GHG) emissions:

	Performance year	Baseline year
Gross Scope 1 GHG emissions from stationary combustion	4,252.39 Metric Tons of CO2 Equivalent	5,233 Metric Tons of CO2 Equivalent
Gross Scope 1 GHG emissions from other sources	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Gross Scope 2 GHG emissions from imported electricity	101.33 Metric Tons of CO2 Equivalent	9,731 Metric Tons of CO2 Equivalent
Gross Scope 2 GHG emissions from imported thermal energy	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Total	4,353.72 Metric Tons of CO2 Equivalent	14,964 Metric Tons of CO2 Equivalent

Figures needed to determine net carbon sinks:

	Performance year	Baseline year
Third-party verified carbon offsets purchased	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Institution-catalyzed carbon offsets generated	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Carbon storage from on-site composting	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Carbon storage from non-additional sequestration	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Carbon sold or transferred	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Net carbon sinks	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent

A brief description of the carbon sinks, including vendor, project source, verification program and contract timeframes (as applicable):

Adjusted net Scope 1 and Scope 2 GHG emissions:

	Performance year	Baseline year
Adjusted net GHG emissions	4,353.72 Metric Tons of CO2 Equivalent	14,964 Metric Tons of CO2 Equivalent

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

	Performance year	Baseline year
Start date	July 1, 2018	July 1, 2005
End date	June 30, 2019	June 30, 2006

A brief description of when and why the GHG emissions baseline was adopted:

Figures needed to determine "Weighted Campus Users":

	Performance year	Baseline year
Number of students resident on-site	2,082	1,177
Number of employees resident on-site	12	12
Number of other individuals resident on-site	0	0
Total full-time equivalent student enrollment	6,831	4,225
Full-time equivalent of employees	1,000	985
Full-time equivalent of students enrolled exclusively in distance education	545	0
Weighted Campus Users	5,988	4,204.75

Adjusted net Scope 1 and 2 GHG emissions per weighted campus user:

	Performance year	Baseline year
Adjusted net Scope 1 and 2 GHG emissions per weighted campus user	0.73 Metric Tons of CO2 Equivalent	3.56 Metric Tons of CO2 Equivalent

Percentage reduction in adjusted net Scope 1 and Scope 2 GHG emissions per weighted campus user from baseline:

79.57

Gross floor area of building space, performance year:

1,480,090 Gross Square Feet

Floor area of energy intensive building space, performance year:

	Floor area
Laboratory space	83,983 Square Feet
Healthcare space	0 Square Feet

Floor area

Other energy intensive space 155,852 Square Feet

EUI-adjusted floor area, performance year:

1,803,908 Gross Square Feet

Adjusted net Scope 1 and 2 GHG emissions per unit of EUI-adjusted floor area, performance year: $0.00 \, MtCO2e \, / \, GSF$

A brief description of the institution's GHG emissions reduction initiatives:

Website URL where information about the institution's GHG emissions is available:

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Additional documentation to support the submission:

Buildings

Points Claimed 1.12

Points Available 8.00

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	Points
Building Design and Construction	1.12 / 3.00
Building Operations and Maintenance	0.00 / 5.00

Provisional Score

Responsible Party

Matt Blog

Senior Manager Campus Infrastructure Operations

1.12 / 3.00

Criteria

Institution-owned buildings that were constructed or underwent major renovations in the previous five years were designed and built in accordance with a published green building code, policy/guideline, and/or rating system.

Green building codes, policies/guidelines, and rating systems may be:

- Multi-attribute: addressing location and transportation, sustainable sites, water efficiency, energy and atmosphere, material and resources, and indoor environmental quality (e.g., BREEAM, LEED BD+C, and similar programs); OR
- Single-attribute: focusing predominantly on one aspect of sustainability such as energy/water efficiency, human health and wellbeing, or sustainable sites.

Building space that is third party certified under a multi-attribute green building rating system developed/ administered by a WorldGBC member Green Building Council (GBC) is weighted more heavily for scoring purposes than space designed and built under other standards and policies/programs. For more information, see Examples of Multi-attribute and Single-attribute Building Frameworks.

Floor area designed and built in accordance with multiple green building codes, policies/guidelines, and/or rating systems should not be double-counted.

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

Total floor area of newly constructed or renovated building space: 99,600 Square Feet

Floor area of eligible building space designed and built in accordance with published green building codes, policies, and/or rating systems:

	Floor area
Certified at the highest achievable level under a multi-attribute GBC rating system for design and construction (e.g., LEED BD+C Platinum or Certified Living Building)	0 Square Feet
Certified at the 2nd highest level under a 4- or 5-tier, multi-attribute GBC rating system for design and construction (e.g., LEED BD+C Gold)	0 Square Feet
Certified at mid-level under a 3- or 5-tier, multi-attribute GBC rating system for design and construction (e.g., BREEAM Very Good)	0 Square Feet
Certified at a step above minimum level under ar 4- or 5-tier, multi-attribute GBC rating system for design and construction (e.g., LEED BD+C Silver)	0 Square Feet
Certified at minimum level under a multi-attribute GBC rating system for design and construction (e.g., LEED BD+C Certified)	0 Square Feet
Certified/verified at any level under a multi-attribute, non-GBC rating system for design and construction, a green building code, or a single-attribute rating system for design and construction	0 Square Feet
Designed and built in accordance with a multi-attribute green building code, policy, guideline, or rating system, but not certified/verified	89,500 Square Feet

	Floor area
Designed and built in accordance with a single-attribute green building code, policy, guideline, or rating system, but not certified/verified	0 Square Feet
Total	89,500 Square Feet

Percentage of newly constructed or renovated building space certified under a green building rating system for design and construction: $^{\circ}$

A list of new construction and major renovation projects that indicates the green building code, policy/guideline, or rating system that applies to each building:

All new construction on campus will be targeting LEED Silver at a minimum. The Gateway Academic Center broke ground in 2017 and had its official ribbon cutting ceremony in December 2019. This building should achieve LEED BD+C Gold, but certification was still pending at the time of this STARS submission.

Initially meant to be a temporary structure, The North Building was rapidly constructed in 2017, and was not built to a green building standard.

An inventory of new construction and major renovation projects that indicates the green building code, policy/guideline, or rating system that applies to each building:

Website URL where information about the institution's green building design and construction program is available:

Additional documentation to support the submission:

Provisional Score

Responsible Party

Matt Blog

0.00 / 5.00

Senior Manager Campus Infrastructure Operations

Criteria

Institution's buildings are operated and maintained in accordance with a sustainable management policy/program and/or a green building rating system focused on the operations and maintenance of existing buildings, e.g. LEED®: Building Operations + Maintenance (O+M).

Sustainable operations and maintenance policies/programs and rating systems may be:

- Multi-attribute: addressing water efficiency, energy and atmosphere, material and resources, and indoor environmental quality (e.g., BREEAM-In Use, LEED O+M, and similar programs); OR
- Single-attribute: less comprehensive; focusing predominantly on either resource use (i.e., energy and/or water efficiency) or indoor environmental quality (e.g., green cleaning, indoor air quality, and integrated pest management).

Building space that is third party certified under a multi-attribute green building rating system developed/administered by a WorldGBC member Green Building Council (GBC) is weighted more heavily for scoring purposes than space operated and maintained under other standards and policies/programs. For more information, see Examples of Multi-attribute and Single-attribute Building Frameworks.

Floor area operated and maintained under multiple O+M policies/programs and/or rating systems should not be double-counted.

Building space that is certified only under a green building rating system for new construction and major renovation does not count for this credit. For example, a building that is certified under LEED: Building Design + Construction (BD+C), but not LEED: Building Operations + Maintenance (O+M) should not be counted as certified space. Sustainability in new construction and major renovation projects is covered in the Building Design and Construction credit.

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

Total floor area of existing building space:

1,480,090 Square Feet

Floor area of existing building space operated and maintained in accordance with a sustainable management policy/program and/or a green building rating system:

	Existing floor area
Certified at the highest achievable level under a multi-attribute, Green Building Council (GBC) rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Platinum)	0 Square Feet
Certified at the 2nd highest level under a 4- or 5-tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Gold)	0 Square Feet
Certified at mid-level under a 3- or 5-tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., BREEAM-In Use Very Good)	0 Square Feet
Certified at a step above minimum level under a 4 -or 5-tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Silver)	0 Square Feet
Certified at minimum level under a multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., BREEAM In-Use Pass or LEED O+M Certified)	0 Square Feet

	Existing floor area
Certified at any level under a non-GBC rating system or single-attribute rating system focused on the operations and maintenance of existing buildings	0 Square Feet
Operated and maintained in accordance with a multi-attribute, sustainable management policy/ program, but not certified under an O+M rating system	0 Square Feet
Operated and maintained in accordance with a single-attribute, sustainable management policy/ program, but not certified under an O+M rating system	0 Square Feet
Total	0 Square Feet

Percentage of existing building space certified under a green building rating system rating system focused on the operations and maintenance of existing buildings:

A brief description of the sustainable operations and maintenance policy/program and/or O+M rating system(s) used:

N/A

Website URL where information about the institution's sustainable operations and maintenance program is available:

Additional documentation to support the submission:

Energy

Points Claimed 5.14 Points Available 10.00

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.

CreditBuilding Energy Efficiency

Clean and Renewable Energy 1.70 / 4.00

Building Energy Efficiency

Provisional Score

3.44 / 6.00

Responsible Party

Gotham 360 Gotham360 Consultant

Consultant Facilities Operations

Criteria

Part 1. Reduction in source energy use per unit of floor area

Institution has reduced its total source energy consumption per gross square metre or foot of floor area compared to a baseline.

Part 2. Site energy use per unit of floor area

Institution's annual site energy consumption is less than the minimum performance threshold of 389 Btu per gross square metre per Celsius degree day (65 Btu per gross square foot per Fahrenheit 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

Electricity use, performance year (report kilowatt-hours):

Imported electricitykWhMMBtuImported electricity18,644,540 Kilowatt-
hours63,615.17
MMBtuElectricity from on-site, non-combustion facilities/devices (e.g.,
renewable energy systems)201,490 Kilowatt-hours687.48 MMBtu

Stationary fuels and thermal energy, performance year (report MMBtu):

	MMBtu
Stationary fuels used on-site to generate electricity and/or thermal energy	79,957.27 <i>MMBtu</i>
Imported steam, hot water, and/or chilled water	0 MMBtu

Total site energy consumption, performance year:

144,259.92 MMBtu

Gross floor area of building space, performance year:

1,529,692 Gross Square Feet

Floor area of energy intensive space, performance year:

	Floor area
Laboratory space	83,983 Square Feet
Healthcare space	0 Square Feet
Other energy intensive space	155,852 Square Feet

EUI-adjusted floor area, performance year:

1,853,510 Gross Square Feet

Degree days, performance year:

Degree days

Heating degree days

4,705 Degree-Days (°F)

Cooling degree days

1,479 Degree-Days (°F)

Total degree days, performance year:

6,184 Degree-Days (°F)

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

Start date End date

Performance period July 1, 2018 June 30, 2019

Total site energy consumption per unit of EUI-adjusted floor area per degree day, performance year: 12.59 Btu / GSF / Degree-Day (°F)

Electricity use, baseline year (report kWh):

kWh MMBtu

18,482,527 Kilowatt-

63,062.38 *MMBtu*

Electricity from on-site, non-combustion facilities/devices (e.g.,

renewable energy systems)

0 Kilowatt-hours

hours

0 MMBtu

Stationary fuels and thermal energy, baseline year (report MMBtu):

MMBtu

Stationary fuels used on-site to generate electricity and/or thermal energy 110,889.36 MMBtu

Imported steam, hot water, and/or chilled water 0 MMBtu

Total site energy consumption, baseline year:

173,951.74 MMBtu

Imported electricity

Gross floor area of building space, baseline year:

1,480,090 Gross Square Feet

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

Baseline period July 1, 2005 June 30, 2006

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

Source-site ratio for imported electricity:

3

Total energy consumption per unit of floor area:

	Site energy	Source energy
Performance year	0.09 MMBtu / GSF	0.18 MMBtu / GSF
Baseline year	0.12 MMBtu / GSF	0.20 MMBtu / GSF

Percentage reduction in total source energy consumption per unit of floor area from baseline: 12.46

Documentation to support the performance year energy consumption figures reported above:

A brief description of the institution's initiatives to shift individual attitudes and practices in regard to energy efficiency:

A brief description of energy use standards and controls employed by the institution:
A brief description of Light Emitting Diode (LED) lighting and other energy-efficient lighting strategies employed by the institution:

A brief description of passive solar heating, geothermal systems, and related strategies employed by the institution:

A brief description of co-generation employed by the institution:
The phased decommissioning of the central heating plant began with the installation of small-scale cogeneration units. These systems provide electricity, space heating and cooling to five campus buildings.
A brief description of the institution's initiatives to replace energy-consuming appliances, equipment, and systems with high efficiency alternatives:

Website URL where information about the institution's energy conservation and efficiency program is available:
Additional documentation to support the submission:

Clean and Renewable Energy

Provisional Score

Responsible Party
Gotham 360 Gotham360
Consultant
Facilities Operations

1.70 / 4.00

Criteria

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

Clean and renewable electricity

- 1. Purchasing or otherwise importing electricity from certified/verified clean and renewable sources. This includes utility-provided green power purchasing options, power purchase agreements (PPAs) for electricity generated offsite, and equivalent products that bundle physical electricity with the right to claim its renewable energy attributes.
- 2. Generating electricity from clean and renewable sources on-site and retaining or retiring the rights to its renewable energy attributes. In other words, if the institution has sold Renewable Energy Certificates (RECs) or the equivalent for the clean and renewable energy 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.

Clean and renewable thermal energy

- 1. Using clean and renewable stationary fuels on-site to generate thermal energy, e.g., using certain types of biomass for heating (see Standards and Terms).
- 2. Purchasing or otherwise importing steam, hot water, and/or chilled water from certified/verified clean and renewable sources (e.g., a municipal geothermal facility).

Unbundled renewable energy products

1. Purchasing RECs, Guarantees of Origin (GOs), International RECs (I-RECs), or equivalent unbundled renewable energy products certified by a third party (e.g., Green-e or EKOenergy).

Energy on the grid is indistinguishable by source. Therefore, 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 (i.e., the utility's standard or default product) count for this credit in the absence of RECs, GOs, I-RECs, or equivalent products that document the renewable electricity delivered or consumed and give the institution to right to claim it as renewable.

Technologies that reduce the amount of energy used but do not generate renewable energy do not count for this credit (e.g., daylighting, passive solar design, ground-source heat pumps). The benefits of such strategies, as well as the improved efficiencies achieved through using cogeneration technologies, are captured by the Greenhouse Gas Emissions and Building Energy Consumption credits.

Transportation fuels, which are covered by the Greenhouse Gas Emissions and Campus Fleet credits, are not included.

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

Total energy consumption, performance year:

151,181.85 MMBtu

Clean and renewable electricity (report kilowatt-hours):

	kWh	MMBtu
Imported electricity from certified/verified clean and renewable sources (i.e., bundled green power purchases)	0 Kilowatt-hours	0 MMBtu
Electricity from on-site, clean and renewable sources (rights retained/retired)	201,490 Kilowatt- hours	687.48 MMBtu

A brief description of the certified/verified sources of clean and renewable electricity:

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

Onsite Solar PV Panels.

Clean and renewable thermal energy (report MMBtu):

97 \ 1	
	MMBtu
Clean and renewable stationary fuels used on-site to generate thermal energy	0 MMBtu
Imported steam, hot water, and/or chilled water from certified/verified clean and renewable sources	0 MMBtu

A brief description of the clean and renewable stationary fuels:

A brief description of the certified/verified sources of clean and renewable thermal energy:

Unbundled renewable energy products (report kWh):

	kWh	MMBtu
Purchased RECs, GOs, I-RECs or equivalent unbundled renewable energy products certified by a third party	18,644,000 Kilowatt- hours	63,613.33 MMBtu

A brief description of the unbundled renewable energy products:

Texas Wind RECs - Green-e certified

Total clean and renewable energy generated or purchased:

64,300.81 MMBtu

Percentage of total energy consumption from clean and renewable sources:

42.53

Website URL where information about the institution's support for clean and renewable energy is available:

Electricity use, by source (percentage of total, 0-100):

, , , , , , , , , , , , , , , , , , , ,	Percentage of total electricity use (0-100)
Biomass	
Coal	
Geothermal	
Hydro	
Natural gas	
Nuclear	
Solar photovoltaic	
Wind	
Other (please specify and explain below)	

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

Energy used for heating buildings, by source::

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

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

--

Additional documentation to support the submission:

Food & Dining

Points Claimed 3.45
Points Available 8.00

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.

Dining services can also support sustainable food systems by preventing food waste and diverting food materials from the waste stream, by making low impact dining options available, and by educating its customers about more sustainable options and practices.

Credit	Points
Food and Beverage Purchasing	1.70 / 6.00
Sustainable Dining	1.75 / 2.00

Food and Beverage Purchasing

Provisional Score

Responsible Party
Sara Klein
AVP
Student Affairs

1.70 / 6.00

Criteria

Institution's dining services purchase food and beverage products that meet at least one of the following criteria:

- Sustainably or ethically produced as determined by one or more of the standards listed in Standards and Terms.
- Plant-based.

An institution with Real Food Calculator results that have been validated by the Real Food Challenge (U.S.) or Good Food Calculator results that have been validated by Meal Exchange (Canada) may simply report its Real/Good Food percentage as the percentage of expenditures on sustainably or ethically produced products. The percentage of expenditures on plant-based foods is reported separately.

Required documentation

For transparency and to help ensure comparability, a completed STARS Food and Beverage Purchasing Inventory template or equivalent inventory must be provided to document purchases that qualify as sustainably or ethically produced. The inventory must justify each product's inclusion and include, at minimum, the following information:

- · Product name, label, or brand
- · Product description/type
- Recognized sustainability standard met (e.g., third party certification or ecolabel)

It is not required that products that qualify solely as plant-based be documented at the same level of detail (i.e., they may or may not be included in the inventory).

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

Percentage of total annual food and beverage expenditures on products that are sustainably or ethically produced:

20.68

Percentage of total annual food and beverage expenditures on plant-based foods: 15.25

An inventory of food and beverage purchases that qualify as sustainably/ethically produced: OP_7_STARS_2.2_Food_and_Beverage_Purchasing_Inventory_02132020.xlsx

A brief description of the methodology used to conduct the inventory, including the timeframe and how representative samples accounted for seasonal variation (if applicable):

Fiscal year 2019 (July 2018- June 2019) was selected as the reporting period. All figures were pulled from invoices by the Dining Services Vendor Representative.

Website URL where the institution's validated Real/Good Food Calculator results are publicly posted:

Which of the following food service providers are present on campus and included in the inventory/ assessment?:

	Present?	Included?
Dining operations and catering services operated by the institution	No	No
Dining operations and catering services operated by a contractor	Yes	Yes
Student-run food/catering services	No	No
Franchises (e.g., regional or global brands)	No	No
Convenience stores	No	No
Vending services	No	No
Concessions	No	No

Total annual dining services budget for food and beverage products:

\$1 million - \$4.9 million

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

Website URL where information about the food and beverage purchasing program is available:

--

Additional documentation to support the submission:

Sustainable Dining

Provisional Score

1.75 / 2.00

Responsible Party Sara Klein

Sara Klein AVP Student Affairs

Criteria

Part 1. Sustainable dining initiatives

Institution's dining services support sustainable food systems in one or more of the following ways. The institution or its primary dining services contractor:

- Hosts a farmers market, community supported agriculture (CSA) or fishery program, or urban agriculture project, or supports such a program in the local community.
- Hosts a sustainability-themed food outlet on-site, either independently or in partnership with a contractor or retailer.
- Supports disadvantaged businesses, social enterprises, and/or local small and medium-sized enterprises (SMEs) through its food and beverage purchasing.
- Hosts low impact dining events (e.g., Meatless Mondays) or promotes plant-forward (vegetables-as-center-of-theplate, with smaller portions of meat) options.
- Has a vegan dining program that makes diverse, complete-protein vegan options available to every member of the campus community at every meal (e.g., a vegan entrée, an all-vegan station, or an all-vegan dining facility).
- Informs customers about low impact food choices and sustainability practices through labeling and signage in dining halls.

Part 2. Food waste minimization and recovery

Institution's dining services minimize food and dining waste in one or more of the following ways. The institution or its primary dining services contractor:

- Participates in a competition or commitment program (e.g., U.S. EPA Food Recovery Challenge) and/or uses a food waste prevention system (e.g., LeanPath) to track and improve its food management practices.
- Has implemented trayless dining (in which trays are removed from or not available in dining halls) and/or modified menus/portions to reduce post-consumer food waste.
- · Donates food that would otherwise go to waste to feed people.
- Diverts food materials from the landfill, incinerator or sewer for animal feed or industrial uses (e.g., converting cooking oil to fuel, on-site anaerobic digestion).
- Has a pre-consumer composting program.
- Has a post-consumer composting program.
- Utilizes reusable service ware for "dine in" meals.
- Provides reusable and/or third party certified compostable containers and service ware for "to-go" meals (in conjunction with a composting program).
- Offers discounts or other incentives to customers who use reusable containers (e.g., mugs) instead of disposable or compostable containers in "to-go" food service operations.

This credit includes on-campus dining operations and catering services operated by the institution and the institution's primary dining services contractor.

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

Does the institution or its primary dining services contractor host a farmers market, community supported agriculture (CSA) or fishery program, or urban agriculture project, or support such a program in the local community?:

Yes

A brief description of the farmers market, CSA or urban agriculture project:

Have invited and hosted local farmers such as Abma Farms in Wyckoff, NJ, to host a farmers market and engage students.

Does the institution or its primary dining services contractor host a sustainability-themed food outlet on-site, either independently or in partnership with a contractor or retailer?:

No

A brief description of the sustainability-themed food outlet:

Does the institution or its primary dining services contractor support disadvantaged businesses, social enterprises, and/or local small and medium-sized enterprises (SMEs) through its food and beverage purchasing?:

Yes

A brief description of the support for disadvantaged businesses, social enterprises, and/or local SMEs:

On Washington Street Wednesdays, students on a meal plan are able to redeem a meal swipe at one of several participating local restaurants. In turn, that correlates to our kitchen staff reducing their production of food by 20% on those particular Wednesdays, as the dining hall traffic slows considerably.

Estimated percentage of total food and beverage expenditures on products from disadvantaged businesses, social enterprises, and/or local SMEs:

Does the institution or its primary dining services contractor host low impact dining events or promote plant-forward options?:

Yes

A brief description of the low impact dining events and/or plant-forward options:

Meatless Mondays, Ancient Grains Station (fully plant based proteins), Beyond Meat specials, Allergen Friendly Room (meatless chicken nuggets, etc)

Does the institution or its primary dining services contractor have a vegan dining program that makes diverse, complete-protein vegan options available to every member of the campus community at every meal?:

Yes

A brief description of the vegan dining program:

Vegan options available Breakfast, Lunch, Dinner. Entrée line has minimum 1 vegan dish per service time. For example, chickpea filling for taco Tuesdays.

Does the institution or its primary dining services contractor inform customers about low impact food choices and sustainability practices through labelling and signage in dining halls?:

Yes

A brief description of the sustainability labelling and signage in dining halls:

Vegan and Vegetarian labeling on all items with distinct symbols on menus and PIDs.

Does the institution or its primary dining services contractor participate in a competition or commitment program and/or use a food waste prevention system to track and improve its food management practices?:

Yes

A brief description of the food recovery competition or commitment program or food waste prevention system:

Waste Not program. Track, measure, and reduce food waste at the unit level.

Has the institution or its primary dining services contractor implemented trayless dining (in which trays are removed from or not available in dining halls) and/or modified menus/portions to reduce post-consumer food waste?:

Yes

A brief description of the trayless dining or modified menu/portion program:

No trays in dining hall, reusable coffee mugs.

Does the institution or its primary dining services contractor donate food that would otherwise go to waste to feed people?:

Yes

A brief description of the food donation program:

When applicable/available, excess food is given to The Hoboken Shelter.

Does the institution or its primary dining services contractor divert food materials from the landfill, incinerator or sewer for animal feed or industrial uses?:

Yes

A brief description of the food materials diversion program:

Cooking oil is collected by a company that cleans/recycles it and sells it back to the University.

Does the institution or its primary dining services contractor have a pre-consumer composting program?:

No

A brief description of the pre-consumer composting program:

Does the institution or its primary dining services contractor have a post-consumer composting program?:

No

A brief description of the post-consumer composting program:

Does the institution or its primary dining services contractor utilize reusable service ware for "dine in" meals?:

Yes

A brief description of the reusable service ware program:

Metal tableware is provided in the dining hall

Does the institution or its primary dining services contractor provide reusable and/or third party certified compostable containers and service ware for "to-go" meals (in conjunction with an on-site composting program)?:

No

A brief description of the compostable containers and service ware:

Compostable to-go meal containers are provided by Huhtamaki, but there is no campus composting program at this time.

Does the institution or its primary dining services contractor offer discounts or other incentives to
customers who use reusable containers instead of disposable or compostable containers in "to-go"
food service operations?:

Yes

A brief description of the reusable container discount or incentives program:

Discounts on coffee (15 cents) and tea (20 cents) are offered at all 5 to-go food service sites for those who bring their own mug.

A brief description of other sustainability-related initiatives not covered above:

Website URL where information about the sustainable dining programs is available:

Additional documentation to support the submission:

Grounds

Points Claimed 2.00

Points Available 3.00

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 resources.

Credit	Points	;
Landscape Management	2.00 / 2.00	
Biodiversity	0.00 / 1.00	
	This credit is weighted more heavily for institutions that own or manage land that includes or is adjacent to any of the following:	
	 Legally protected areas (e.g., IUCN Category I-VI) 	
	• Internationally recognized areas (e.g., World Heritage, Ramsar, Natura 2000)	
	• Priority sites for biodiversity (e.g., Key Biodiversity Areas, Alliance for Zero Extinction sites)	
	 Regions of conservation importance (e.g., Endemic Bird Areas, Biodiversity Hotspots, High Biodiversity Wilderness Areas) 	
	2 points are available for this credit if the institution owns or manages land that includes or is adjacent to any of the above. 1 point is available for this credit for all other institutions.	
	Close	

Provisional Score

Responsible Party Frank LoCastro AVP

2.00 / 2.00

Facilities & Campus Operations

Criteria

Institution's grounds include areas that are managed:

• Organically, without the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides (i.e., only ecologically preferable materials may be used);

OR

• In accordance with an Integrated Pest Management (IPM) program.

An area of grounds may be managed organically or in accordance with an IPM program that uses selected chemicals, but not both.

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

Total campus area:

55 Acres

Figures required to calculate the total area of managed grounds:

	Area (double-counting is not allowed)
Area managed organically, without the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides	55 Acres
Area managed in accordance with an Integrated Pest Management (IPM) program that uses selected chemicals only when needed	0 Acres
Area managed using conventional, chemical-based landscape management practices	0 Acres
Total area of managed grounds	55 Acres

A brief description of any land excluded from the area of managed grounds:

Percentage of grounds managed organically:

100

A brief description of the organic landscape management program:

If pests are identified and determined actionable, habitat modifications and sanitation efforts will be the first actions considered (Hand Pruning and/or removal). Application of Organic nontoxic oils and soaps will follow if needed as the second action considered. Action threshold will be considered before any other actions. Action threshold will reflect how many pests can be tolerated for a specific site. The presence of some pests does not in itself necessarily require action.

See attached document for additional detail and specific products.

Percentage of grounds managed in accordance with an IPM program:
A copy of the IPM plan or program:
A brief description of the IPM program:
A brief description of the institution's approach to plant stewardship:
A brief description of the institution's approach to hydrology and water use:
Test and repair irrigation systems at start of each season and by draining at end of season Set and adjust irrigation schedules as needed to minimize evaporation and overwatering Set and adjust irrigation schedules for seasonal weather conditions and site characteristics. Monitor and maintain systems for best performance and efficiency Monitor irrigation regularly for broken heads, leaks, runoff, and uniform distribution, and repair irrigation problems promptly Use smart controllers and rain shut-off sensors.
A brief description of the institution's approach to landscape materials management and waste minimization:
A brief description of the institution's approach to energy-efficient landscape design:
A brief description of other sustainable landscape management practices employed by the institution:
All landscaping equipment (leaf blower, weed whacker, etc) has been switched from gasoline-powered to electric.
Website URL where information about the institution's sustainable landscape management program is available:
Additional documentation to support the submission: OP_9_IPMMaintenance_ProcedureOrganics_Procedure.pdf

Provisional Score

Responsible Party

0.00 / 1.00

This credit is weighted more heavily for institutions that own or manage land that includes or is adjacent to any of the following:

- Legally protected areas (e.g., IUCN Category I-VI)
- Internationally recognized areas (e.g., World Heritage, Ramsar, Natura 2000)
- Priority sites for biodiversity (e.g., Key Biodiversity Areas, Alliance for Zero Extinction sites)
- Regions of conservation importance (e.g., Endemic Bird Areas, Biodiversity Hotspots, High Biodiversity Wilderness Areas)

2 points are available for this credit if the institution owns or manages land that includes or is adjacent to any of the above. 1 point is available for this credit for all other institutions.

Robin Whitney
Teaching Assistant
Professor
College of Arts &
Letters

Close

Criteria

Institution has conducted an assessment to identify:

• Endangered and vulnerable species (including migratory species) with habitats on land owned or managed by the institution:

AND/OR

Areas of biodiversity importance on land owned or managed by the institution.

The institution has plans or programs in place to protect or positively affect the species, habitats, and/or ecosystems identified.

Assessments conducted and programs adopted by other entities (e.g., government, university system, or 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, or regions of conservation importance?:

A brief description of the legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance:

Has the institution conducted an assessment to identify endangered and vulnerable species (including migratory species) with habitats on land owned or managed by the institution?:

No

A list of endangered and vulnerable species with habitats on land owned or managed by the institution, by level of extinction risk:

Has the institution conducted an assessment to identify areas of biodiversity importance on land owned or managed by the institution?: \ensuremath{No}
A brief description of areas of biodiversity importance on land owned or managed by the institution:
The methodologies used to identify endangered and vulnerable species and/or areas of biodiversity importance and any ongoing assessment and monitoring mechanisms:
A brief description of the scope of the assessment(s):
A brief description of the plans or programs in place to protect or positively affect identified species, habitats, and/or ecosystems:
Estimated percentage of areas of biodiversity importance that are also protected areas :
Website URL where information about the institution's biodiversity initiatives is available:
Additional documentation to support the submission:

Purchasing

Points Claimed 4.30

Points Available 6.00

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	Points
Sustainable Procurement	2.75 / 3.00
Electronics Purchasing	0.90 / 1.00
Cleaning and Janitorial Purchasing	0.64 / 1.00
Office Paper Purchasing	0.01 / 1.00

Sustainable Procurement

Provisional Score

2.75 / 3.00

Responsible Party

Joe Cassidy AVP Finance

Criteria

Part 1. Institution-wide sustainable procurement policies

Institution has written policies, guidelines, or directives that seek to support sustainable purchasing across multiple commodity categories, institution-wide. For example:

- A stated preference for post-consumer recycled or bio-based content, for carbon neutral products, or to otherwise minimize the negative environmental impacts of products and services.
- A stated intent to support disadvantaged businesses, social enterprises and/or local small and medium-sized enterprises (SMEs), or otherwise support positive social and economic impacts and minimize negative impacts.
- A vendor code of conduct or equivalent policy that sets standards for the social and environmental responsibility of the institution's business partners that exceed basic legal compliance.

Part 2. Life Cycle Cost Analysis

Institution employs Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy- and water-using products, systems, and building components (e.g., HVAC systems). Practices may include structuring requests for proposals (RFPs) so that vendors compete on the basis of lowest total cost of ownership (TCO) in addition to (or instead of) purchase price.

Please note that LCCA is a method for assessing the total cost of ownership over the life cycle of a product or system (i.e., purchase, installation, operation, maintenance, and disposal). Life Cycle Assessment (LCA), by contrast, is a method for assessing the environmental impacts of a product or service over its life cycle. While LCAs may inform the sustainability criteria recognized in Part 1 and Part 3 of this credit, Part 2 specifically recognizes institutions that employ LCCA.

Part 3. Product-specific sustainability criteria

Institution has published sustainability criteria to be applied when evaluating products and/or services in one or more of the following categories. The criteria may be included in broader policies such as those recognized in Part 1, however they must address the specific sustainability challenges and impacts associated with products and/or services in each category, e.g. by requiring or giving preference to multi-criteria sustainability standards, certifications and labels appropriate to the category.

Category

A. Chemically intensive products and services

Building and facilities maintenance, cleaning and sanitizing, landscaping and grounds maintenance.

B. Consumable office products

Batteries, lamps, paper, toner cartridges

C. Furniture and furnishings

Furniture, flooring, ceilings, walls, composite wood.

D. Information technology (IT) and equipment

Computers, imaging equipment, mobile phones, data centers, cloud services, scientific and medical equipment.

E. Food service providers

Contractors, franchises, vending and catering services. (Food and beverage purchasing is covered in Food & Dining.)

F. Garments and linens

Clothing, bedding, laundry services.

Examples

- Published measures to minimize the use of chemicals.
- A stated preference for green cleaning services and third party certified products.
- Including sustainability objectives in contracts with service providers.
- A stated preference for post-consumer recycled, agricultural residue, or third party certified (e.g., FSC) content.
- A stated preference for extended use, rechargeable, or remanufactured products.
- A stated preference for low mercury lamps.
- A stated preference for third party certified materials and products (e.g., FSC or LEVEL certified)
- A stated preference for furnishings that are low-VOC or free of flame retardants
- Published measures to reduce the demand for equipment.
- A stated preference for ENERGY STAR, TCO Certified, Blue Angel, or EPEAT registered products.
- A stated preference for ACT-labeled laboratory products
- Including sustainability objectives in contracts with onsite food service providers.
- Requiring that dining service contractors pay a living wage to employees.
- Published labor and human rights standards that clothing suppliers must meet.
- A stated preference for organic, bio-based, or recycled content textiles.

G. Professional service providers

Architectural, engineering, public relations, and financial services.

 A stated preference for disadvantaged businesses, social enterprises, or B Corporations.

H. Transportation and fuels

Travel, vehicles, delivery services, long haul transport, generator fuels, steam plants.

- Published measures to minimize the size of the campus fleet or otherwise reduce the impacts of travel or transport.
- A stated preference for clean and renewable technologies.

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.

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

Does the institution have written policies, guidelines, or directives that seek to support sustainable purchasing across multiple commodity categories institution-wide?: Yes

A copy of the policies, guidelines or directives:

The policies, guidelines or directives:

The Stevens Institute of Technology Procurement Department supports the purchasing of environmentally friendly goods and services whenever practicable. These preferences include:

- Preference for purchasing electronics which are EPEAT (Electronic Product Environmental Assessment Tool) and/or Energy Star certified.
- Preference for purchasing recycled office paper that is Forest Stewardship Council certified over virgin paper (paper that has not been recycled before)
- Working with vendors that provide options to purchase recycled materials ie: Staples
- Purchasing furniture manufactured from responsibly sourced materials and compliant with standards established by Greenquard Environmental Institute.

The Procurement department will furnish internal clients with a list of vendors that provide options for recycled/sustainable products upon request.

Does the institution employ Life Cycle Cost Analysis (LCCA) when evaluating energy- and water-using products and systems?:

Yes

Which of the following best describes the institution's use of LCCA?:

Institution employs LCCA as a matter of policy and standard practice when evaluating all energy- and water-using products, systems and building components

A brief description of the LCCA policy and/or practices:

While there is no formal policy regarding Life Cycle Cost Analysis, LCCA is employed as a general practice across all departments when evaluating energy and water-using products and systems. An example of this is the installation of LED light fixtures that have a much longer life span and reduce labor and energy use in the long term. Other examples include the purchasing of water bottle refill stations/water fountains and the installation of more efficient HVAC equipment and solar panels. Stevens is dedicated to making these types of investments in products that provide lower costs over their life.

Does the institution have published sustainability criteria to be applied when evaluating chemically intensive products and services?:

Yes

A brief description of the published sustainability criteria for chemically intensive products and services:

Landscaping and grounds management has moved to an all organic program that is maintained with all electric equipment, not diesel. (Ex: electric leaf blower)

Stevens has recently elected to switch to all tree-free toilet paper and hand towels for bathrooms.

Janitorial contractor was selected due to availability of green cleaning offerings.

All paint purchased must be low VOC.

Does the institution have published sustainability criteria to be applied when evaluating consumable office products?:

Yes

A brief description of the published sustainability criteria for consumable office products:

Stevens purchases paper and many office supplies from Staples through their sustainability program.

Does the institution have published sustainability criteria to be applied when evaluating furniture and furnishings?:

Yes

A brief description of the published sustainability criteria for furniture and furnishings:

Stevens contracts with a vendor solely offering previously used furniture. All new furniture must be low VOC.

Does the institution have published sustainability criteria to be applied when evaluating Information technology (IT) and equipment?:

Yes

A brief description of the published sustainability criteria for Information Technology (IT) and equipment:

There is a stated preference for EPEAT and/or ENERGY STAR certified machines.

Does the institution have published sustainability criteria to be applied when evaluating food service providers?:

No

A brief description of the published sustainability criteria for food service providers:

Does the institution have published sustainability criteria to be applied when evaluating garments and linens?:

No

A brief description of the published sustainability criteria for garments and linens:

Does the institution have published sustainability criteria to be applied when evaluating professional service providers?:

No

A brief description of the published sustainability criteria for professional service providers:

Does the institution have published sustainability criteria to be applied when evaluating transportation and fuels?:

Yes

A brief description of the published sustainability criteria for transportation and fuels:

All new fleet vehicles must be hybrid or electric.

Website URL where information about the institution's sustainable procurement program or initiatives is available:

Additional documentation to support the submission:

Provisional Score

0.90 / 1.00

Responsible Party Joe Cassidy

AVP Finance

Criteria

Institution purchases electronic products that are:

- · EPEAT registered,
- Third party certified under a multi-attribute sustainability standard or ISO Type 1 ecolabel developed/administered by a Global Ecolabelling Network or ISEAL Alliance member organization (e.g., Blue Angel, TCO Certified, UL Ecologo), AND/OR
- Labeled under a single-attribute standard for electrical equipment (e.g., ENERGY STAR, EU Energy A or higher, or local equivalent).

Included are desktop and notebook/laptop computers, displays, thin clients, tablets/slates, televisions, mobile phones, and imaging equipment (copiers, digital duplicators, facsimile machines, mailing machines, multifunction devices, and printers and scanners). Specialized equipment that EPEAT does not register may be excluded.

A product that meets multiple criteria (e.g., a product that is both EPEAT registered and ENERGY STAR labeled) should not be double-counted.

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

Total annual expenditures on electronics:

36,143.30 US/Canadian \$

Expenditures on environmentally or socially preferable electronics:

	Expenditure Per Level
EPEAT Gold registered and/or third party certified at the highest achievable level under a multi-attribute sustainability standard	21,906.75 US/ Canadian \$
EPEAT Silver registered and/or third party certified at mid-level under a multi-attribute sustainability standard	13,477.33 US/ Canadian \$
EPEAT Bronze registered and/or third party certified at minimum level under a multi-attribute sustainability standard	759.22 US/Canadian \$
Labeled under a single-attribute standard	0 US/Canadian \$

Do the figures reported above include leased equipment?:

No

A brief description of the time period from which the figures reported above are drawn:

Fiscal Year 2019 (July 1, 2018 - June 30, 2019)

Website URL where information about the institution's electronics purchasing is available:

Additional documentation	to support the submission:
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Data source(s) and notes about the submission:

Represents purchases from central purchasing (IT department) only.

Provisional Score

0.64 / 1.00

Responsible Party

Frank LoCastro

AVP

Facilities & Campus Operations

Criteria

Institution's main cleaning or housekeeping department(s) and/or contractor(s) purchase cleaning and janitorial paper products that meet one or more of the following criteria:

- Blue Angel labeled (German Federal Environment Agency)
- · Cradle to Cradle Certified
- ECOLOGO certified (UL Environment)
- EU Ecolabel
- · Forest Stewardship Council (FSC) certified
- · Good Environmental Choice Australia (GECA) certified
- Green Seal certified
- Nordic Swan labeled (Nordic Ecolabelling Board)
- · U.S. EPA Safer Choice labeled
- Other multi-criteria sustainability standards and ISO Type 1 ecolabels developed/administered by Global Ecolabelling Network and/or ISEAL Alliance member organizations

Cleaning products include general purpose bathroom, glass and carpet cleaners; degreasing agents; biologically-active cleaning products (enzymatic and microbial products); floor-care products (e.g., floor finish and floor finish strippers); hand soaps and hand sanitizers, disinfectants, and metal polish and other specialty cleaning products. Janitorial paper products include toilet tissue, tissue paper, paper towels, hand towels, and napkins.

Other cleaning and janitorial products and materials (e.g., cleaning devices that use only ionized water or electrolyzed water) should be excluded from both total expenditures and expenditures on environmentally preferable products to the extent feasible.

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

Total annual expenditures on cleaning products:

89,937.68 US/Canadian \$

Annual expenditures on certified green cleaning products:

40,927.13 US/Canadian \$

Total annual expenditures on janitorial paper products:

73,700.50 US/Canadian \$

Annual expenditures on certified green janitorial paper products:

64,095.05 US/Canadian \$

A brief description of the time period on which the figures reported above are based:

Annual expenditures were taken from the most recent calendar year: January 2019 through December 2019.

Percentage of expenditures on cleaning and janitorial products that are third party certified to meet recognized sustainability standards: 64.18

Website URL where information about the institution's cleaning and janitorial purchasing is available:

--

Additional documentation to support the submission:

OP_13_UG2_Green_Cleaning.docx

Office Paper Purchasing

Provisional Score

Responsible Party

Joe Cassidy

0.01 / 1.00

AVP Finance

Criteria

Institution purchases office paper with post-consumer recycled, agricultural residue, and/or Forest Stewardship Council (FSC) certified content.

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

Total annual expenditures on office paper:

26,506.45 US/Canadian \$

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	9.71 US/Canadian \$
30-49 percent	661.73 US/Canadian \$
50-69 percent	36.89 US/Canadian \$
70-89 percent (or FSC Mix label)	0 US/Canadian \$
90-100 percent (or FSC Recycled/100% label)	5.11 US/Canadian \$

A brief description of the time period from which the figures reported above are drawn:

1/1/2019-12/31/2019

Website URL where information about the institution's paper purchasing is available:

Additional documentation to support the submission:

Transportation

Points Claimed 5.47
Points Available 7.00

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	Points
Campus Fleet	0.05 / 1.00
Commute Modal Split	4.42 / 5.00
Support for Sustainable Transportation	1.00 / 1.00

Provisional Score

0.05 / 1.00

Responsible Party

Frank LoCastro

AVP

Facilities & Campus Operations

Criteria

Institution supports alternative fuel and power technology by including vehicles in its motorized fleet that are:

- 1. Gasoline-electric hybrid,
- 2. Diesel-electric hybrid,
- 3. Plug-in hybrid,
- 4. 100 percent electric (including electric assist utility bicycles and tricycles),
- 5. Fueled with Compressed Natural Gas (CNG),
- 6. Hydrogen fueled,
- 7. Fueled with B20 or higher biofuel for more than 4 months of the year, OR
- 8. 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)

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:

43

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

	Number of Vehicles
Gasoline-only	38
Diesel-only	3
Gasoline-electric hybrid	1
Diesel-electric hybrid	0
Plug-in hybrid	0
100 percent electric	1
Fueled with Compressed Natural Gas (CNG)	0
Hydrogen fueled	0
Fueled with B20 or higher biofuel	0
Fueled with locally produced, low-level biofuel	0

Do the figures reported above include leased vehicles?:

A brief description of the institution's efforts to	support alternative fu	el and power technology	in its
motorized fleet:			

Website URL where information about the institution's motorized fleet is available:

--

Additional documentation to support the submission:

Commute Modal Split

Provisional Score

4.42 / 5.00

Responsible Party

Gotham 360 Gotham360 Consultant

Consultant Facilities Operations

Criteria

Part 1. Student commute modal split

Institution's students commute to and from campus using more sustainable commuting options such as walking, cycling, vanpooling or carpooling, taking public transportation or a campus shuttle, riding motorcycles or scooters, using a zero-emissions vehicle, availing of distance education, 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.

Part 2. Employee commute modal split

Institution's employees commute to and from campus using more sustainable commuting options such as walking, cycling, vanpooling or carpooling, taking public transportation or a campus shuttle, riding motorcycles or scooters, using a zero-emissions vehicle, 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 worksites.

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

Total full-time equivalent student enrollment:

5,129

Full-time equivalent of employees:

982

Has the institution gathered data about student commuting behavior?:

Yes

Total percentage of students that use more sustainable commuting options as their primary mode of transportation:

93

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

Information on the number of parking permits was pulled from the latest Transportation Demand Management Report. Parking in the city of Hoboken is incredibly scarce, and more expensive than a campus permit, so we are assuming that there are a negligible number of drivers not captured by this data. As an urban campus, those who do not live on campus have access to public transportation, as well as the Stevens shuttle system.

Has the institution gathered data about employee commuting behavior?:

Yes

Total percentage of employees that use more sustainable commuting options as their primary mode of transportation:

64

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

Information on the number of parking permits was pulled from the latest Transportation Demand Management Report. Parking in the city of Hoboken is incredibly scarce, and more expensive than a campus permit, so we are assuming that there are a negligible number of drivers not captured by this data. As an urban campus, it is accessible through a number of public transportation methods. We do know of some faculty/staff driving EVs, but the number is also negligible.

Percentage of students and employees that use the following as their primary mode of transportation:

	Percentage of students (0-100)	Percentage of employees (0-100)
Single-occupancy vehicle		
Zero-emissions vehicle		
Walk, cycle, or other non-motorized mode		
Vanpool or carpool		

	Percentage of students (0-100)	Percentage of employees (0-100)
Public transport or campus shuttle		
Motorcycle, motorized scooter/bike, or moped		
Distance education / telecommute		

Website URL where information about student or employee commuting is available:

Additional documentation to support the submission:

Provisional Score

1.00 / 1.00

Responsible Party

Gotham 360 Gotham360

Consultant Facilities Operations

Criteria

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:

- Has a bicycle-sharing program or participates in a local bicycle-sharing program.
- 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.
- Offers preferential parking or other incentives for fuel efficient vehicles.
- Has one or more Level 2 or Level 3 electric vehicle charging stations that are accessible to student and employee commuters.
- Has incentives or programs to encourage employees to live close to campus.
- Has other programs or initiatives to encourage more sustainable modes of transportation and/or reduce the impact
 of student and employee commuting.

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

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

A brief description of the bicycle sharing program:

Stevens Institute of Technology is an official Partner of the Hoboken Bike Share program that was implemented by the City of Hoboken. This program began by introducing 120 "smart-bikes" and 17 docking stations to the Hoboken community, with plans to expand in the future. Stevens has shown their support for this local public policy aimed at reducing automobile usage in cities by agreeing to have 2 of the docking stations installed on their campus. Members of Stevens' community – students, faculty and staff – also receive discounted memberships, to encourage participation in the program.

Does the institution participate in a car sharing program?:Yes

A brief description of the car sharing program:

Stevens has an agreement with ZipCar, which has 3 different car pick-up areas on the campus.

Does the institution offer preferential parking or other incentives for fuel efficient vehicles?: Yes

A brief description of the incentives for fuel efficient vehicles:

The Babbio Garage contains 8 parking spaces (2 per floor) reserved for Low Emissions/Fuel Efficient Vehicles

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:

5 level 2 EV charging stations were added to the Babbio Garage during its expansion, and more will be added in the near future. Funding for the Babbio Garage units was provided by a NJDEP grant.

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

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

Key personnel live either on campus or in Institute owned/sponsored housing.

Does the institution have other programs or initiatives to encourage more sustainable modes of transportation and/or reduce the impact of student and employee commuting?:

Yes

A brief description of other programs or initiatives to encourage more sustainable modes of transportation and/or reduce the impact of student and employee commuting:

Going Green Commuter Club - see attachment for details

Website URL where information about the institution's support for sustainable transportation is available:

Additional documentation to support the submission:

OP-17 Going Green Commuter Club.docx

Waste

Points Claimed 3.59 **Points Available** 10.00

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	Points
Waste Minimization and Diversion	1.85 / 8.00
Construction and Demolition Waste Diversion	0.74 / 1.00
Hazardous Waste Management	1.00 / 1.00

Waste Minimization and Diversion

Provisional Score

1.85 / 8.00

Responsible Party

Frank LoCastro

AVP

Facilities & Campus Operations

Criteria

Part 1. Reduction in total waste per person

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. Total waste per person

Institution's total annual waste generation (materials diverted and disposed) is less than the minimum performance threshold of 0.45 tonnes (0.50 short tons) per weighted campus user.

Part 3. Waste diverted from the landfill or incinerator

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

For scoring purposes, up to 10 percent of total waste generated may also be disposed through post-recycling residual conversion. To count, residual conversion must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

Waste includes all materials that the institution discards, intends to discard or is required to discard (i.e., all materials that are recycled, composted, donated, re-sold, or disposed of as trash) except construction, demolition, hazardous, special (e.g., coal ash), universal and non-regulated chemical waste, which are covered in the Construction and Demolition Waste DiversionandHazardous Waste Managementcredits.

Consistent with the U.S Environmental Protection Agency's Waste Reduction Model (WARM), the on-site reuse of materials is treated as a form of source reduction for scoring purposes. All materials that are reused on campus are automatically recognized in scoring for Part 1 and Part 2 of this credit. To avoid double-counting, reuse therefore does not also contribute to scoring for Part 3 as waste diversion.

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

Figures needed to determine total waste generated (and diverted):

	Performance Year	Baseline Year
Materials recycled	663.30 <i>Tons</i>	549.51 <i>Tons</i>
Materials composted	2.65 <i>Tons</i>	0 Tons
Materials donated or re-sold	0 Tons	0 Tons
Materials disposed through post-recycling residual conversion	0 Tons	0 Tons
Materials disposed in a solid waste landfill or incinerator	1,341.20 <i>Tons</i>	932.60 Tons
Total waste generated	2,007.15 <i>Tons</i>	1,482.11 Tons

A brief description of the residual conversion facility:

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

	Start Date	End Date
Performance Period	July 1, 2018	June 30, 2019
Baseline Period	Jan. 1, 2014	Dec. 31, 2014

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

2014 was the performance year in our last STARS submission, so we are using it as a new baseline.

Figures needed to determine "Weighted Campus Users":

	Performance Year	Baseline Year
Number of students resident on-site	1,364	1,881
Number of employees resident on-site	5	12
Number of other individuals resident on-site	0	0
Total full-time equivalent student enrollment	6,831	5,275
Full-time equivalent of employees	1,000	937
Full-time equivalent of students enrolled exclusively in distance education	545	0
Weighted campus users	5,806.75	5,132.25

Total waste generated per weighted campus user:

	Performance Year	Baseline Year
Total waste generated per weighted campus user	0.35 Tons	0.29 <i>Tons</i>

Percentage reduction in total waste generated per weighted campus user from baseline:

Percentage of materials diverted from the landfill or incinerator by recycling, composting, donating or re-selling, performance year: 33.18

Percentage of materials diverted from the landfill or incinerator (including up to 10 percent attributable to post-recycling residual conversion): 33.18

In the waste figures reported above, has the institution recycled, composted, donated and/or re-sold the following materials?:

	Yes or No
Paper, plastics, glass, metals, and other recyclable containers	Yes
Food	No
Cooking oil	Yes
Plant materials	No
Animal bedding	No
White goods (i.e. appliances)	No
Electronics	Yes
Laboratory equipment	Yes
Furniture	Yes
Residence hall move-in/move-out waste	Yes
Scrap metal	Yes
Pallets	Yes
Tires	No
Other (please specify below)	Yes

A brief description of other materials the institution has recycled, composted, donated and/or re-sold:
Materials intended for disposal but subsequently recovered and reused on campus, performance year
Does the institution use single stream recycling to collect standard recyclables in common areas?: Yes
Does the institution use dual stream recycling to collect standard recyclables in common areas?: \ensuremath{No}
Does the institution use multi-stream recycling to collect standard recyclables in common areas?: \ensuremath{No}
Average contamination rate for the institution's recycling program:
A brief description of any recycling quality control mechanisms employed:
A brief description of the institution's waste-related behavior change initiatives:
A brief description of the institution's waste audits and other initiatives to assess its materials management efforts and identify areas for improvement:
Students periodically help conduct audits to ensure that classrooms and other spaces have both trash and recycling bins.
A brief description of the institution's procurement policies designed to prevent waste:
A brief description of the institution's surplus department or formal office supplies exchange program that facilitates reuse of materials:
A brief description of the institution's platforms to encourage peer-to-peer exchange and reuse:
A brief description of the institution's limits on paper and ink consumption:
There is no campus-wide free printing. Some departments may have their own printers which can be used for free, but most students print in the library, which charges \$.04 per black and white page.
A brief description of the institution's initiatives to make materials available online by default rather than printing them:

A brief description of the institution's programs or initiatives to recover and reuse other materials intended for disposal:

Website URL where information about the institution's waste minimization and diversion efforts is available:

A brief description of the institution's program to reduce residence hall move-in/move-out waste:

Additional documentation to support the submission:

Provisional Score

Responsible Party Frank LoCastro AVP

0.74 / 1.00

Facilities & Campus Operations

Criteria

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

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

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

Construction and demolition materials recycled, donated, or otherwise recovered: 6,449.80 *Tons*

Construction and demolition materials landfilled or incinerated: 2,259.50 *Tons*

Percentage of construction and demolition materials diverted from the landfill or incinerator through recycling, donation and/or other forms of recovery:

74.06

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:

Website URL where information about the institution's C&D waste diversion efforts is available:

Additional documentation to support the submission:

OP 19 Cwaste tonnage.xlsx

Data source(s) and notes about the submission:

Tonnage includes the entirety of the Gateway (2017-2019) project plus the available data to date for the new Student Housing/University Center project (July-Dec 2019). The SH/UC project is still in the foundation stage and therefore not included in new construction square footage in OP 3.

Hazardous Waste Management

Provisional Score

1.00 / 1.00

Responsible Party

David Fernandez

Director

Environmental Health and Safety

Criteria

Part 1. Hazardous waste minimization and disposal

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. Electronic waste diversion

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students. Institution ensures that the electronic waste is recycled responsibly by using a recycler certified under the e-Stewards[®] and/or Responsible Recycling (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:

Stevens is a Small Quantity Generator as defined by the US EPA. As such, we collect our hazardous waste in satellite accumulation areas and then they are consolidated in our 180 Day Storage Facility. The hazardous waste is then collected and transported by a licensed hazardous waste vendor and sent to a permitted facility for treatment, recycling, or disposal. Universal waste are collected on campus and stored in accordance with regulated storage times and then transported off site by a licensed universal waste vendor to a permitted facility for treatment disposal or recycling. The same is done with our electronics waste

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

Stevens employs a chemical inventory database which allows us to track and maintain inventory which reduces the amount of chemicals purchased and ultimately disposed. Lab personnel can check the inventory before ordering a chemical to ensure there are no duplicate purchases. We have also transitioned to micro-scaling experiments in our teaching and research labs.

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

No significant hazardous material releases within the past 3 years

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

Stevens utilizes a computer based inventory system to inventory all laboratory chemicals purchased and stored on campus. The system was developed at Stevens. When chemicals arrive on campus they are delivered the Environmental Health & Safety (EHS) office where the package is inspected and opened. The information about the chemical and the purchaser are entered into a database and a barcode is produced. The barcode is applied to the container and the container is delivered to the appropriate lab. When chemicals are transferred or otherwise relocated, a new barcode is created. Labs are inventoried annually by EHS to ensure all chemicals are in our inventory system. Labs requesting chemicals contact EHS with the chemical information and our staff searches the database to determine if we have the chemical in stock or if it can be borrowed from another researcher. This reduces the amount of chemicals that need to be ordered.

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish 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?:

A brief description of the electronic waste recycling program(s), including information about how electronic waste generated by the institution and/or students is recycled:

Electronics waste is collected by the Facilities department and stored on site until a regular pick up by our electronics waste vendor. Regentech picks up the waste and provides documentation on the amount of material collected and recycled. The waste is recycled off site at Regentech's facility

Is the institution's electronic waste recycler certified under the e-Stewards and/or Responsible Recycling (R2) standards?:

Yes

Website URL where information about the institution's hazardous waste program is available: https://www.stevens.edu/sit/sites/sit/files/Stevens-Waste-Management-Plan.pdf

Additional documentation to support the submission:

OP_20_EPA_Cert_Regentech.bmp

Water

Points Claimed 6.00

Points Available 6.00

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			Points
	4.00 / 4.00		
	This credit is weighted more heavily for institutions located in areas of water stress and scarcity and le heavily for institutions in areas with relative water abundance. The points available for each part of this credit are determined by the level of "Physical Risk Quantity" for the institution's main campus, as indicated by the World Resources Institute Aqueduct Water Risk Atlas. The number of points available automatically calculated in the online Reporting Tool as detailed in the following table:		
	Physical Risk QUANTITY	Points available for each part	Total available points for this credit
Water Use	Low and Low to Medium Risk	11//3	4
	Medium to High Risk	12/3	5
	High and Extremely High Risk	2	6
	Class		
Doinwotor	Close		
Rainwater Management	2.00 / 2.00		

Provisional Score

Responsible Party

4.00 / 4.00

This credit is weighted more heavily for institutions located in areas of water stress and scarcity and less heavily for institutions in areas with relative water abundance. The points available for each part of this credit are determined by the level of "Physical Risk Quantity" for the institution's main campus, as indicated by the World Resources Institute Aqueduct Water Risk Atlas. The number of points available is automatically calculated in the online Reporting Tool as detailed in the following table:

Physical Risk QUANTITY	Points available for each part	Total available points for this credit	
Low and Low to Medium Risk	1⅓₃	4	Gotham 360 Gotham360 Consultant Facilities Operations
Medium to High Risk	12/3	5	
Ç			
High and Extremely High Risk	2	6	
	Close		
	Close		

Criteria

Part 1. Reduction in potable water use per person

Institution has reduced its annua	potable water use	per weighted campus	user compared to a baseline.

Part 2. Reduction in potable water use per unit of floor area

Institution has reduced its annual potable water use per gross square metre or foot of floor area compared to a baseline.

Part 3. Reduction in total water withdrawal per unit of vegetated grounds

Institution has reduced its total annual water use (potable + non-potable) per hectare or acre of vegetated grounds compared to a baseline.

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

Level of "Physical Risk Quantity" for the institution's main campus as indicated by the World Resources Institute Aqueduct Water Risk Atlas:

Low

Total water withdrawal (potable and non-potable combined):

	Performance Year	Baseline Year
Total water withdrawal	35,514,674 Gallons	57,869,020 Gallons

Potable water use:

	Performance Year	Baseline Year
Potable water use	35,514,674 Gallons	57,869,020 Gallons

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

	Start Date	End Date
Performance Period	July 1, 2018	June 30, 2019
Baseline Period	July 1, 2011	June 30, 2012

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

Figures needed to determine "Weighted Campus Users":

	Performance Year	Baseline Year
Number of students resident on-site	1,364	1,683
Number of employees resident on-site	5	12
Number of other individuals resident on-site	0	0
Total full-time equivalent student enrollment	6,831	4,608
Full-time equivalent of employees	1,000	819
Full-time equivalent of students enrolled exclusively in distance education	545	0
Weighted campus users	5,806.75	4,494

Potable water use per weighted campus user:

	Performance Year	Baseline Year	
Potable water use per weighted campus user	6,116.10 <i>Gallons</i>	12,876.95 Gallons	

Percentage reduction in potable water use per weighted campus user from baseline: 52.50

Gross floor area of building space:

Performance Year Baseline Year

Gross floor area 1,529,692 Gross Square Feet 1,480,090 Gross Square Feet

Potable water use per unit of floor area:

Performance Year Baseline Year

Potable water use per unit of floor area 23.22 Gallons / GSF 39.10 Gallons / GSF

Percentage reduction in potable water use per unit of floor area from baseline: 40.62

Area of vegetated grounds:

Performance Year Baseline Year

Vegetated grounds 15 Acres 15 Acres

Total water withdrawal per unit of vegetated grounds:

Performance Year Baseline Year

Total water withdrawal per unit of vegetated grounds 2,367,644.93 Gallons / Acre 3,857,934.67 Gallons / Acre

Percentage reduction in total water withdrawal per unit of vegetated grounds from baseline: 38.63

A brief description of the institution's water-related behavior change initiatives:

A brief description of the institution's water recovery and reuse initiatives:

A brief description of the institution's initiatives to replace plumbing fixtures, fittings, appliances, equipment, and systems with water-efficient alternatives:

Website URL where information about the institution's water conservation and efficiency efforts is available:

Additional documentation to support the submission:

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Provisional Score

Responsible Party

Robin Whitney

Teaching Assistant Professor College of Arts & Letters

2.00 / 2.00

Criteria

Institution uses green infrastructure and low impact development (LID) practices to help mitigate stormwater run-off impacts and treat rainwater as a resource rather than as a waste product.

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

Which of the following best describes the institution's approach to rainwater management?: Comprehensive policies, plans or guidelines that require LID practices for all new projects

A brief description of the institution's green infrastructure and LID practices:

All new construction projects must include Green Infrastructure and LID practices.

Additionally, after an undergraduate senior design project won the EPA's Rainworks Challenge, several GI projects from their proposed campus master plan for stormwater management have been deployed. This includes rain gardens and bioretention planters.

A copy of the institution's rainwater management policy, plan, and/or guidelines:

A brief description of the institution's rainwater management policy, plan, and/or guidelines that supports the responses above:

Stevens has committed to build all new construction to a LEED Silver standard (at minimum), and requires that stormwater management be present in the project.

Stevens also works directly with the city of Hoboken on some projects to reduce stormwater runoff. Professor Dr. Elizabeth Fassman-Beck, an expert in green infrastructure, led the planning and implementation of many of these projects while furthering educational opportunities for students.

Website URL where information about the institution's green infrastructure and LID practices is available:

Additional documentation to support the submission:

Planning & Administration

Coordination & Planning

Points Claimed 7.38
Points Available 9.00

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	Points
Sustainability Coordination	1.00 / 1.00
Sustainability Planning	4.00 / 4.00
Inclusive and Participatory Governance	2.38 / 3.00
Reporting Assurance	0.00 / 1.00

Provisional Score

Responsible Party

Robert Maffia

1.00 / 1.00

Vice President
Campus and Facilities Operations

Criteria

Institution has at least one sustainability committee, office, and/or officer tasked by the administration or governing body to advise on and implement policies and programs related to sustainability on campus. The committee, office, and/or officer focuses on sustainability broadly (i.e., not just one sustainability issue, such as climate change) and covers 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 one aspect of sustainability (e.g., an energy efficiency committee) or has jurisdiction over only a part of the institution (e.g., Academic Affairs Sustainability Taskforce) does not count toward scoring 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?: Yes

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

The Vice President of Facilities and Campus Operations has a Sustainability Committee that meets regularly to discuss energy and sustainability related operations, especially as they relate to STARS categories.

Members of each committee, including affiliations and role:

Dibs Sarkar Professor, Department of Civil Environmental and Ocean Engineering

Bob Maffia VP for Facilities & Campus Operations

Frank LoCastro AVP for Facilities & Campus Operations

Matt Blog Sr. Manager, Campus Infrastructure Operations

Kurt Wagner Infrastructure Project Manager, Division of Facilities and Campus Operations

David Fernandez Director of Environment, Health and Safety

Staci Greene AVP for the Division of Communications and Marketing

Trina Ballantyne Dean of Residence Life

Sara Klein AVP for Student Affairs

Keith Marciniak Dining Director

Tony Blazini Director of Residence Life

Anju Sharma Teaching Associate Professor, Department of Chemistry and Chemical Biology

Keith Sheppard Professor, Dept. of Chemical Eng. & Materials Science

Mercedes McKay Deputy Chief of Staff

Joseph Cassidy AVP for Finance

David Vaccari Professor, Dept. of Civil, Environmental and Ocean Engineering

Minghui Wang Office of Institutional Research & Effectiveness

Robin Whitney Professor, College of Arts & Letters / SAVE Faculty Advisor

Nicole Altneu Assistant Vice President for Strategic Initiatives

Maria Ouckama AVP for Human Resources

Michael Parente AVP for Information Technology

Sarah Gilly Energy Consultant

Jennifer Kearney Energy Consultant

Does the institution have at least one sustainability office that includes more than 1 full-time equivalent employee?: $_{\mbox{\scriptsize No}}$
A brief description of each sustainability office:

Full-time equivalent of people employed in the sustainability office(s):
Does the institution have at least one sustainability officer?: Yes
Name and title of each sustainability officer: Frank LoCastro, AVP of Campus Facilities and Operations
Does the institution have a mechanism for broad sustainability coordination for the entire institution?: Yes
A brief description of the activities and substantive accomplishments of the institution-wide coordinating body or officer during the previous three years:
The Sustainability Committee addresses the campus as a whole and includes members from all different staff and faculty departments.
Job title of the sustainability officer position:
Job description for the sustainability officer position:
Job description for the sustainability officer position:
Job title of the sustainability officer position (2nd position):
Job description for the sustainability officer position (2nd position):
Job description for the sustainability officer position (2nd position):
Job title of the sustainability officer position (3rd position):
Job description for the sustainability officer position (3rd position):
Job description for the sustainability officer position (3rd position):
Website URL where information about the institution's sustainability coordination is available:

Additional documentation to support the submission:

Sustainability Planning

Provisional Score

4.00 / 4.00

Responsible Party

Robert Maffia

Vice President Campus and Facilities Operations

Criteria

Part 1. Measurable sustainability objectives

Institution has a published plan or plans that include measurable sustainability objectives that address one or more of the following:

- · Academics sustainability in curriculum and/or research
- Engagement student, employee, or community engagement for sustainability
- Operations (e.g., sustainable resource use, emissions, groundskeeping, procurement)
- · Administration (e.g., diversity, equity, and inclusion; sustainable investment/finance; wellbeing)

The criteria for Part 1 may be met by any combination of published plans, for example:

- · Sustainability plan
- · Campus master plan or physical campus plan
- · Climate action plan
- · Diversity and inclusion plan
- · Human resources strategic plan
- · Strategic plan or equivalent guiding document

Part 2. Sustainability in institution's highest guiding document

Institution includes the integrated concept of sustainability (as opposed to one or more aspects of sustainability) in its highest guiding document, e.g., a published, institution-widestrategic plan or the equivalent.

Sustainability may be included in the highest guiding document as a major theme (e.g., in a section on sustainability, as a major institutional goal, or through multiple sustainability-focused objectives) or as a minor theme (e.g., in passing, as part of a vision or values statement, or in objectives that are related to rather than focused on sustainability). A strategic plan that addresses aspects of sustainability, sustainability issues/concepts, and/or sustainability challenges, but not the integrated concept of sustainability does not qualify.

For institutions that are a part of a larger system, plans developed at the system level are eligible for this credit.

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

Does the institution have a published plan or plans that include measurable sustainability objectives that address sustainability in curriculum and/or research?:

Yes

A list or sample of the measurable sustainability objectives related to academics and the plan(s) in which they are published:

From the Strategic Plan Midpoint Update -

"Stevens' research in resilience and sustainability will respond to the critical need for adaptive science and practice-relevant knowledge in this area.

...

Developing strategies and techniques for sustainability, Stevens will build new programs that meet a range of human needs such as protecting environmental quality, reducing human health risk from exposure to environmental contaminants, and balancing environmental protection with societal benefits and economic growth."

Does the institution have a published plan or plans that include measurable sustainability objectives that address student, employee, or community engagement for sustainability?:

Yes

A list or sample of the measurable sustainability objectives related to engagement and the plan(s) in which they are published:

From the Strategic Plan Midpoint Update -

"We will continue to develop synergies and collaborations between Stevens and the Hoboken community that span academic and research interests, student life and volunteerism, employee and community engagement, cultural and performing arts programming, entrepreneurship and economic impact, and other areas that contribute to the mutual benefit of Stevens and Hoboken."

"We will forge a small number of meaningful and mutually-beneficial agreements with prestigious domestic and international partner institutions that significantly enhance the work of the faculty and the learning opportunities for students from both universities."

Does the institution have a published plan or plans that include measurable sustainability objectives that address sustainability in operations?:

A list or sample of the measurable sustainability objectives related to operations and the plan(s) in which they are published:

All new construction must target LEED Gold.

From the Strategic Plan Midpoint Update -

"Stevens will be a model of sustainability, through innovative energy initiatives, policies, and programs to promote use of biodegradable materials and recycling, and smart transportation initiatives to reduce use of cars."

Does the institution have a published plan or plans that include measurable sustainability objectives that address diversity, equity, and inclusion; sustainable investment/finance; or wellbeing?:

Yes

A list or sample of the measurable sustainability objectives related to administration and the plan(s) in which they are published:

One of the goals of the Strategic Plan Midpoint Update (linked below) was to increase percent of all new full-time faculty hires that are women from 24.6% to at least 30%. "In addition, we will aim to increase the number of underrepresented minority faculty in our full-time tenure and non-tenure stream faculty by at least two-thirds from the Fall 2016 baseline of nine."

Another goal states, "by 2022, we will achieve a steady-state level of at least 3 percent of tenure-stream faculty in sabbatical positions of influence in academic, government, industry, and non-profit sectors."

Does the institution have a published strategic plan or equivalent guiding document that includes sustainability at a high level? :

Yes

The institution's highest guiding document (upload):

PA 2 - Stevens-Strategic-Plan-Midpoint-Update.pdf

Website URL where the institution's highest guiding document is publicly available:

https://www.stevens.edu/sites/stevens_edu/files/files/Stevens-Strategic-Plan-Midpoint-Update.pd f

Which of the following best describes the inclusion of sustainability in the highest guiding document?: Major theme

The institution's sustainability plan (upload):

PA_2_-_Stevens-Strategic-Plan-Midpoint-Update.pdf

Website URL where the institution's sustainability plan is publicly available:

Does the institution have a formal statement in support of sustainability endorsed by its governing body?:

The formal statement in support of sustainability:

The institution's definition of sustainability:

Is the institution an endorser or signatory of the following?:

Yes or No

The Earth Charter

No

The Higher Education Sustainability Initiative (HESI)

No

	Yes or No
ISCN-GULF Sustainable Campus Charter	
Pan-Canadian Protocol for Sustainability	
SDG Accord	
Second Nature's Carbon Commitment (formerly known as the ACUPCC), Resilience Commitment, and/or integrated Climate Commitment	
The Talloires Declaration (TD)	
UN Global Compact	
Other multi-dimensional sustainability commitments (please specify below)	

A brief description of the institution's formal sustainability commitments, including the specific initiatives selected above:

Additional documentation to support the submission:

Inclusive and Participatory Governance

Provisional Score

2.38 / 3.00

Responsible Party

Nicole Altneu AVP Strategic Initiatives

Criteria

Part 1. Shared governance bodies

Institution has formal participatory or shared governance bodies through which the following campus stakeholders can regularly participate in the governance of the institution (e.g., decision-making processes, plan/policy formulation and review):

- Students
- · Academic staff (i.e., faculty members)
- · Non-academic staff

The bodies may be managed by the institution (e.g., formal boards, committees, and councils), by stakeholder groups (e.g., independent committees and organizations that are formally recognized by the institution), or jointly (e.g., union/management structures).

Part 2. Campus stakeholder representation in governance

Institution's highest governing body includes individuals representing the following stakeholder groups as official (voting or non-voting) members:

- Students
- Academic staff (i.e., faculty members)
- · Non-academic staff

Part 3. Gender equity in governance

Women (and/or individuals who do not self-identify as men) comprise at least 20 percent of the official members of the institution's highest governing body.

Part 4. Community engagement bodies

Institution hosts or supports one or more formal bodies through which external stakeholders (i.e., local community members) have a regular voice in institutional decisions that affect them. Examples include campus-community councils, "town and gown" committees, community advisory panels, and regular multi-stakeholder forums that are convened at least once a year.

Part 4 of this credit recognizes institutions that are proactive in creating opportunities for community members to contribute to and participate in the institution's decision-making processes. The institution's contributions to and participation in community decision-making processes do not count.

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

Does the institution have formal participatory or shared governance bodies through which the following stakeholders can regularly participate in the governance of the institution?:

Yes or No

Students Yes

Academic staff Yes

Non-academic staff Yes

A brief description of the institution's formal participatory or shared governance bodies:

Students have representation and involvement through the Student Government Association and the Honor Board, and both are very active bodies. Students do not sit on the Board of Trustees, but are able to share input through the SGA and the graduate student equivalent organization with the Board's Academic Affairs Committee. In addition, each year, a member of the graduating class is selected to serve on the Board of Trustees as the "recent alumni trustee." This election is held on a rotating basis so that, at any one point in time, there are two recent alumni trustees serving on the Board.

The faculty function as a body and are governed by the Faculty Handbook. There is a Faculty Senate and an array of faculty committees which address various topics. All amendments to the Faculty Handbook are approved by the full faculty in addition to the Board of Trustees.

Since 2010, the Board of Trustees has elected 2 faculty trustees to serve on the Board. In addition, the Board elects 2 faculty participants to serve on most Board committees. There are 10 committees and, of these, faculty participants serve on 7 of them. Faculty participants are not trustees but for all practical purposes behave like trustees and attend meetings, review materials and vote. The experience of our faculty trustees and participants has been overwhelmingly positive, with many seeking renewal terms. The Board experience has been similarly positive and welcoming.

Total number of individuals on the institution's highest governing body: 52

Number of students representing their peers as official members of the institution's highest governing body:

Number of academic staff representing their peers as official members of the institution's highest governing body:

Number of non-academic staff representing their peers as official members of the institution's highest governing body:

ž

Number of women serving as official members of the institution's highest governing body: 13

Percentage of official members of the highest governing body that are women:

Website URL where information about the institution's highest governing body may be found: https://www.stevens.edu/about-stevens/university-policy-library/institutional-governance/board-and-trustees

Does the institution host or support one or more formal bodies through which external stakeholders have a regular voice in institutional decisions that affect them?:

Yes

A brief description of the campus-community council or equivalent body that gives external stakeholders a regular voice in institutional decisions that affect them:

We do not have a formal, standing committee, but we have various mechanisms to engage with the community, e.g., via the Stevens Connects web page; via outreach and input from neighbors, City Council representatives, and the Mayor and members of his administration. We also have two social gatherings each year with the Hoboken community, and over the last year, held at least 20 outreach/input meetings with various constituencies in Hoboken on matters related to campus. Although these are not formalized committees, there is a great deal of input.

Number of people from underrepresented groups serving as official members of the institution's highest governing body.:

Website URL where information about the institution's governance structure is available:

Additional documentation to support the submission:

Reporting Assurance

Provisional Score

Responsible Party

Dibs Sarkar

0.00 / 1.00

Professor Civil Environmental and Ocean Engineering

Criteria

Institution has completed an assurance process that provides independent affirmation that the information in its current STARS report is reported in accordance with credit criteria.

To qualify, the process must successfully identify and resolve inconsistencies and errors in the institution's finalized STARS report prior to submitting it to AASHE. The assurance process may include:

1. Internal review by one or more individuals affiliated with the institution, but who are not directly involved in the data collection process for the credits they review.

AND/OR

1. An external audit by one or more individuals affiliated with other organizations (e.g., a peer institution, third-party contractor, or AASHE).

An institution is eligible to earn bonus points in the External Reporting Assurance credit in Innovation & Leadership if its assurance process includes an external audit.

Minimum requirements

The review and/or audit must be guided by and documented in the STARS Review Template and include the following steps:

- 1. Independent reviewer(s) review all credits that the institution is pursuing and document in the template the issues that are identified. Reviewer(s) must check that:
 - All required reporting fields, attachments, inventories, and URLs are included;
 - Reported information meets credit criteria and is consistent with required timeframes; AND
 - Reported figures are consistent across credits (e.g., between the Institutional Characteristics section and specific credits that require similar figures) and that any inconsistencies are explained.
- 4. The STARS Liaison (or another primary contact for the institution) addresses the inconsistencies or errors identified during the review by updating information in the Reporting Tool and documenting in the template that the issues have been addressed.
- 5. Reviewer(s) provide affirmation that the submission has been reviewed in full and that all identified inconsistencies and errors have been successfully addressed.
- 6. The Liaison or other primary contact uploads:
 - A statement of affirmation from each reviewer. AND
 - The completed STARS Review Template.

Please note that assured reports are still subject to review by AASHE staff prior to publication, which may require additional revisions. AASHE reserves the right to withhold points for this credit if it is determined that the assurance process was clearly unsuccessful in identifying and resolving inconsistencies or errors (e.g., when AASHE staff identify a significant number of issues not captured in the completed review template). Published reports are also subject to public data inquiries and periodic audits by AASHE staff.

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

Has the institution completed an assurance process that provides independent affirmation that the information in its current STARS report is reported in accordance with credit criteria?:

Did the assurance process include internal review, an external audit, or both?:

The name, title, and organizational affiliation of each reviewer:

A brief description of the institution's assurance process:

Affirmation from the reviewer(s) that the report has been reviewed in full and that all identified inconsistencies and errors have been successfully addressed prior to submitting it to AASHE:

Completed STARS Review Template:

Affirmation from the reviewer(s) that the report has been reviewed in full and that all identified inconsistencies and errors have been successfully addressed prior to submitting it to AASHE (2nd review):

Completed STARS Review Template (2nd review):

Affirmation from the reviewer(s) that the report has been reviewed in full and that all identified inconsistencies and errors have been successfully addressed prior to submitting it to AASHE (3rd review):

Copy of completed STARS Review Template (3rd review):

Website URL where information about the institution's reporting assurance is available:

Additional documentation to support the submission:

Diversity & Affordability

Points Claimed 7.23 **Points Available** 10.00

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	Points
Diversity and Equity Coordination	1.33 / 2.00
Assessing Diversity and Equity	0.88 / 1.00
Support for Underrepresented Groups	2.25 / 3.00
Affordability and Access	2.77 / 4.00

Diversity and Equity Coordination

Provisional Score

1.33 / 2.00

Responsible Party Maria Ouckama AVP

Human Resources

Criteria

Part 1

Institution has a diversity and equity committee, office and/or officer (or the equivalent) tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity, equity, inclusion, and human rights on campus. The committee, office and/or officer may focus on students and/or employees.

Part 2

Institution makes cultural competence, anti-oppression, anti-racism, and/or social inclusion trainings and activities available to students, academic staff (i.e., faculty members), and/or non-academic staff.

The trainings and activities help participants build the awareness, knowledge, and skills necessary to redress inequalities and social disparities, and work effectively in cross-cultural situations.

"---" 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, equity, inclusion and human rights?:

Yes

Does the committee, office and/or officer focus on students, employees, or both?: Both students and employees

A brief description of the diversity and equity committee, office and/or officer, including purview and activities:

Purview and activities of the Director of Diversity & Inclusion are to Advance the Success of Women Faculty through the development/execution/assessment of a variety of programs and policies; Strengthen Existing Efforts to Increase Recruitment and Retention of Women and URM by identifying and catalyzing collaborative and individual efforts to increase the number and percentage of undergraduate women and URM students; Collaborate with the Vice President for Enrollment Management and Student Affairs to develop programs and raise awareness of diversity and includsion in order to create a welcoming and supportive environment for all current and prospective members of the Stevens community; Enhance the Diversity & Inclusion webpage, both graphically and with expanded content, and work with the Division of Communications and marketing to ensure that women and URM are appropriately represented in the University's communications; Advocate for diversity in relevant venues and with relevant constituencies; Work with the President, the Division of Development, and the faculty to identify and pursue external funding including the submission of at least one major proposal targeted at diversity and includsion objectives to increase the impact of institutional funding.

Estimated proportion of students that has participated in that has participated in cultural competence, anti-oppression, anti-racism, and/or social inclusion trainings and activities:

Some

Estimated proportion of academic staff that has participated in cultural competence, anti-oppression, anti-racism, and/or social inclusion trainings and activities:

Some

Estimated proportion of non-academic staff that has participated in cultural competence, antioppression, anti-racism, and/or social inclusion trainings and activities: Some

A brief description of the institution's cultural competence, anti-oppression, anti-racism, and/or social inclusion trainings and activities:

- "Our program includes training on:
- 1. Safe Zone training to promote awareness and understanding for LGBTQ community and issues.
- 2. Bystrander- training to prevent sexual assault, rape, harassment or unwaned comments of racist, homophobic or transphobic nature.
- 3. Title IX training on Title IX policy
- 4. Anti-discrimination training to prevent discrimintion, harrassment or bias"

Website URL where information about the institution's diversity and equity office or trainings is available:

http://www.stevens.edu/sit/diversity-and-inclusion

Additional documentation to support the submission:

Provisional Score

0.88 / 1.00

Responsible Party
Maria Ouckama
AVP
Human Resources

Criteria

Institution has engaged in a structured assessment process during the previous three years to improve diversity, equity, and inclusion on campus. The structured diversity and equity assessment process addresses:

- Campus climate by engaging stakeholders to assess the attitudes perceptions and behaviors of employees and students, including the experiences of underrepresented groups;
- Student outcomes related to diversity, equity, and success (e.g., graduation/success and retention rates for underrepresented groups); AND/OR
- Employee outcomes related to diversity and equity (e.g., pay and retention rates for underrepresented groups).

The results of the assessment may be shared with the campus community and/or made publicly available.

An employee satisfaction or engagement survey is not sufficient to meet the campus climate or employee outcome criteria outlined above, but may contribute to the overall structured assessment. Employee satisfaction and engagement surveys are recognized in the Assessing Employee Satisfaction credit.

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

Has the institution engaged in a structured assessment process during the previous three years to improve diversity, equity and inclusion on campus?:

Yes

A brief description of the assessment process and the framework, scorecard(s) and/or tool(s) used:

The university has engaged in multiple studies that focus on diversity and pay equity across different underrepresented groups. With regards to staff and faculty, through these studies we are identifying and defining goals that the University will commit to to impact these groups in positive meaningful way.

Does the assessment process address campus climate by engaging stakeholders to assess the attitudes, perceptions and behaviors of employees and students, including the experiences of underrepresented groups?:

Yes

Does the assessment process address student outcomes related to diversity, equity and success?: Yes

Does the assessment process address employee outcomes related to diversity and equity?: Yes

A brief description of the most recent assessment findings and how the results are used in shaping policy, programs, and initiatives:

With regards to faculty, there are goals for increasing the hiring of female faculty. With regards to staff, we are assessing our diversity at leadership levels and our talent acquisition team is evaluating our recruiting process to ensure a diverse set of candidates is present during the search process. With regards to pay, a budget amount of dollars was set aside to address pay equity issues for underrepresented groups both amongst faculty and staff.

Are the results of the most recent structured diversity and equity assessment shared with the campus community?:

Yes

A brief description of how the assessment results are shared with the campus community:

For students yes. For faculty and staff - not the whole community. Diversity numbers related to staff and faculty are posted to their website website

Are the results (or a summary of the results) of the most recent structured diversity and equity assessment publicly posted?:

No

The diversity and equity assessment report or summary (upload):

Website URL where the diversity and equity assessment report or summary is publicly posted:

Website URL where information about the institution's diversity and equity assessment efforts is available:

http://www.stevens.edu/sit/diversity-and-inclusion

Additional documentation to support the submission:

Provisional Score

2.25 / 3.00

Responsible Party
Maria Ouckama
AVP
Human Resources

Criteria

Institution has one or more of the following policies, programs or initiatives to support underrepresented groups and foster a more diverse and inclusive campus community:

- 1. A publicly posted non-discrimination statement.
- 2. A discrimination response protocol or committee (sometimes called a bias response team) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination, or hate crime.
- 3. Programs specifically designed to recruit students, academic staff (i.e., faculty members), and/or non-academic staff from underrepresented groups.
- 4. Mentoring, counseling, peer support, academic support, or other programs designed specifically to support students, academic staff, and/or non-academic staff from underrepresented groups.
- 5. Programs that specifically aim to support and prepare students from underrepresented groups for academic careers as faculty members (sometimes known as pipeline programs). 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.)
 - 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 academics.
 - Financial and/or other support programs for doctoral and postdoctoral students from underrepresented groups.

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

Does the institution have a publicly posted non-discrimination statement? : Yes

The non-discrimination statement, including the website URL where the policy is publicly accessible:

Stevens Institute of Technology stands committed to the principle of equality of opportunity in employment and in education.

It is the policy of Stevens Institute of Technology not to discriminate on the basis of ancestry, sexual orientation, gender identity and expression, disability, a typical hereditary cellular or blood trait, marital status, civil union status, domestic partnership status, veteran status, any other category protected by law, or liability for service in the armed forces or status as a disabled or Vietnam-era veteran, in its admissions policies, educational programs, scholarship and loan programs, athletics, activities, or employment policies. Under Title IX of the 1972 Education Amendments, Stevens (like all other educational institutions receiving federal financial assistance) is required to make public notification of its compliance with this law. Inquiries regarding compliance with Title IX may be directed to the Office of Affirmative Action, Stevens Institute of Technology (201-216-5122), or to the Office of Civil Rights, U.S. Department of Education, Washington, D.C. 20202.

Does the institution have a discrimination response protocol or committee (sometimes called a bias response team)?:

Yes

A brief description of the institution's discrimination response protocol or team:

For example, the University has established a "Title IX Coordinator" role with centralized oversight responsibility for Title IX matters at Stevens, including the coordination of the University's response to reports. Xhiljola Ruci is the Interim Title IX Coordinator and has ultimate responsibility for Title IX matters generally and primary responsibility for overseeing complaints and reports relating to Stevens' students. Maria Ouckama is the Deputy Title IX Coordinator and will be the primary person responsible for overseeing complaints and reports relating to employees. Ms. Ruci and Ms. Ouckama are also responsible for the coordination of educational programs for students, faculty, and staff to promote awareness and prevention of gender-based and sexual misconduct.

Does the institution have programs specifically designed to recruit students from underrepresented groups?:

No

Does the institution have programs specifically designed to recruit academic staff from underrepresented groups?:

No

Does the institution have programs designed specifically to recruit non-academic staff from underrepresented groups?:

No

A brief description of the institution's programs to recruit students, academic staff, and/or non-academic staff from underrepresented groups:

Does the institution have mentoring, counseling, peer support, academic support, or other programs designed specifically to support students from underrepresented groups on campus?:

Yes

Does the institution have mentoring, counseling, peer support or other programs designed specifically to support academic staff from underrepresented groups on campus?:

No

Does the institution have mentoring, counseling, peer support or other programs to support non-academic staff from underrepresented groups on campus?:

No

A brief description of the institution's programs designed specifically to support students, academic staff, and/or non-academic staff from underrepresented groups:

The Stevens Technical Enrichment Program (STEP) serves as the "informal home" for undergraduates from diverse backgrounds. It provides the students with a comfortable and supportive environment in which to express themselves, and responds to their needs with guidance, support services and special programs.

STEP's mission is to "Connect Students to Success", and offers students from underrepresented backgrounds with support and assistance to achieve their academic, personal and career goals. The department provides the students with Academic Support, Advising and Counseling, and Professional Development opportunities.

Does the institution have training and development programs, teaching fellowships and/or other programs that specifically aim to support and prepare students from underrepresented groups for careers as faculty members?:

A brief description of the institution's programs to support and prepare students from underrepresented groups for careers as faculty members:

A select number of programs at Stevens encourage and support students of underrepresented groups to pursue advanced degrees and obtain skills and positions in teaching:

The Clare Boothe Luce Program encourages and supports women seeking to study or teach science, engineering, and mathematics. The CBL Program makes grants to 4-year degree granting institutions that demonstrate a strong commitment to support of women in STEM, to award scholarships to women students to cover the final two years of their undergraduate studies. CBL scholarship recipients are encouraged to participate in undergraduate research in order to motive them to pursue graduate studies. Stevens Institute of Technology is a 3-time recipient of the Clare Boothe Luce (CBL) Program grant over the last 12 years, which has been used to award scholarships to 7 women undergraduate students.

Stevens also offers a graduate fellowship from the New Jersey Alliance for Engineering Education, funded by the National Science Foundation (NSF) GK-12 program, to create partnerships with local NJ high school science departments to promote the integration of problem solving, innovation, and inventiveness within the STEM curricula. This program provides funding to graduate students in STEM disciplines to develop enhanced teaching and communication skills by working in high school classrooms for up to 10 hours per week.

The Robert Crooks Stanley Fellowship is a Graduate teaching fellowship in Engineering and Science for students pursuing a doctorate or master's degree and maintaining a 3.5 grade point average. Although the fellowship is open to all Stevens graduate students, women applicants are targeted and strongly encouraged to apply.

Stevens Technical Enrichment Program (STEP), a program to support and assist students from underrepresented backgrounds to achieve their academic, personal and career goals, runs two summer programs each year taught by graduate students. One of the programs offered is the STEP Bridge Summer Program, a 6 week residential program for incoming freshman. Bridge gives students a preview of the academic demands at Stevens and provides a transitional social experience. STEP also offers the Mathematics Immersion Program, a 3 week summer program for NJ college students who are recipients of an NJ EOF grant. The program helps students to improve their understanding of and increase their confidence with mathematics. Each year, STEP hires 7-8 Stevens graduate students to teach these programs. Because the students in these programs tend to be of underrepresented groups, graduate students of underrepresented groups are strongly encouraged to apply, however, these teaching positions are open to all graduate students.

Does the institution produce a publicly accessible inventory of gender-neutral bathrooms on campus?: $\ensuremath{\mathsf{No}}$

Does the institution offer housing options to accommodate the special needs of transgender and transitioning students?:

Yes

Website URL where information about the institution's support for underrepresented groups is available:

http://www.stevens.edu/sit/step

Additional documentation to support the submission:

PA 7 Policy on Discrimination Harassment and Bias Incidents.pdf

Affordability and Access

Provisional Score	Responsible Party
2.77 / 4.00	Minghui Wang EXECUTIVE DIRECTOR OF INSTITUTIONAL RESEARCH AND EFFECTIVENESS Office of the Provost

Criteria

Institution is affordable and accessible to low-income students as demonstrated by one or more of the following indicators:

- A. Percentage of need met, on average, for students who were awarded any need-based aid
- B. Percentage of students graduating without student loan debt
- C. Percentage of entering students that are low-income
- D. Graduation/success rate for low-income students

These indicators are scored together to form a multi-dimensional index of affordability and accessibility that is relevant to institutions in diverse contexts. It is not expected that every institution will necessarily have the data required to report on all four indicators or achieve 100 percent on each indicator that it reports on. See Measurement for specific guidance on completing each indicator.

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

Percentage of need met, on average, for students who were awarded any need-based aid: 69.40

Percentage of students graduating without student loan debt:

Percentage of entering students that are low-income: 18

Graduation/success rate for low-income students: 90.80

A brief description of notable policies or programs to make the institution accessible and affordable to low-income students:

Stevens participates in federal and state programs and offers institutional financial aid programs that support affordability for low-income students. The Educational Opportunity Fund program - a NJ state program that provides financial assistance and support services to students from educationally and economically disadvantaged backgrounds provides a state grant of \$2600 annually to students in the program - Stevens has enacted policy to ensure these students are awarded aid (from all sources) to meet the cost of tuition.

A brief description of notable policies or programs to support non-traditional students:

Estimated percentage of students that participate in or directly benefit from the institution's policies and programs to support low-income and non-traditional students:

Website URL where information about the institution's accessibility and affordability initiatives is available:

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Additional documentation to support the submission:

Investment & Finance

Points Claimed 1.50

Points Available 6.00

This subcategory seeks to recognize institutions that make investment decisions that promote sustainability. Collectively, colleges and universities invest hundreds of billions of dollars. Like other decisions that institutions make, these investments have impacts that are both local and global in scope. Institutions with transparent and democratic investment processes promote accountability and engagement by the campus and community. By using the tools of sustainable investing, institutions can improve the long-term health of their endowments, encourage better corporate behavior, support innovation in sustainable products and services, support sustainability in their community, and help build a more just and sustainable financial system.

Throughout this subcategory, the term "sustainable investment" is inclusive of socially responsible, environmentally responsible, ethical, impact, and mission-related investment.

Credit		Points
Committee on Investor Responsibility	0.00 / 2.00	
	0.50 / 3.00	
	This credit is weighted more heavily for institutions with large institutions with smaller investment pools. The number of poir calculated in the online Reporting Tool as detailed in the follows:	nts available is automatically
	Total value of the investment pool (US/Canadian dollars)	Total points available for the credit
Sustainable Investment	\$1 billion or more	5
	\$500 - 999 million	4
	Less than \$500 million	3
	Close	
Investment Disclosure	1.00 / 1.00	

0.00 / 2.00

Responsible Party Joe Cassidy

AVP Finance

Criteria

Institution has a formally established and active committee on investor responsibility (CIR) or equivalent body that makes recommendations to fund decision-makers on socially and environmentally responsible investment opportunities across asset classes, including proxy voting (if the institution engages in proxy voting). The body has multi-stakeholder representation, which means its membership includes academic staff, non-academic staff, and/or students (and may also include alumni, trustees, and/or other parties).

An institution 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 a regular part of its agenda.

This credit recognizes committees that that regularly make recommendations to fund decision-makers on the institution's external investments. Committees that only have within their purview green revolving loan funds or similar initiatives to fund campus infrastructure improvements and sustainability committees that occasionally make recommendations to fund decision-makers do not count. Student-managed sustainable investment funds, green fees and revolving funds, and sustainable microfinance initiatives are covered in the Student Life credit in Campus Engagement.

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

Does the institution have a formally established and active committee on investor responsibility (CIR) or equivalent body?:

No

The charter or mission statement of the CIR or other body which reflects social and environmental concerns or a brief description of how the CIR is tasked to address social and environmental concerns:

Does the CIR include academic staff representation?:

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Does the CIR include non-academic staff representation?:

Does the CIR include student representation?:

Members of the CIR, including affiliations and role:

Examples of CIR actions during the previous three years:

Website URL where information about the institution's committee on investor responsibility is available:

Additional documentation to support the submission:

Responsible Party

0.50 / 3.00

This credit is weighted more heavily for institutions with large investment pools and less heavily for institutions with smaller investment pools. The number of points available is automatically calculated in the online Reporting Tool as detailed in the following table:

Total value of the investment pool (US/Canadian dollars) Total points available for the credit

\$1 billion or more	5	Joe Cassidy AVP Finance
\$500 - 999 million	4	
Less than \$500 million	3	
C	Close	

Criteria

Part 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 (CDFIs) 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 in Part 1.
- · Green revolving loan funds that are funded from the endowment.

Part 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 during the previous three years, either by its committee on investor responsibility (CIR), by another committee, or through the use of guidelines.
- 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.
- Participates in a public divestment effort (e.g., targeting fossil fuel production or human rights violations) and/or has
 a publicly available investment policy with negative screens, for example to prohibit investment in an industry (e.g.,
 tobacco or weapons manufacturing).
- 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 interorganizational collaborations to share best practices.

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

Total value of the investment pool:

224.000.000 US/Canadian \$

Value of holdings in each of the following categories:

	Value of holdings
Sustainable industries (e.g., renewable energy or sustainable forestry)	0 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 funds funded from the endowment	0 US/Canadian \$

A brief description of the companies, funds, and/or institutions referenced above:

Percentage of the institution's investment pool in positive sustainability investments:

Does the institution have a publicly available sustainable investment policy?:

Yes

A copy of the sustainable investment policy:

PA 10 - Goldman Env Stewardship.pdf

The sustainable investment policy:

"We are committed to helping our clients position themselves for a future in which sustainability is core to all industries and integrated across markets, with successful commercial solutions. We will achieve this vision by doing what we do best — invest, finance, advise, and innovate — to drive global climate transition and inclusive growth strategies that accelerate positive change. That's why we're targeting \$750 billion in sustainable finance growth themes by 2030." - Goldman Sachs, Stevens' endowment investment manager

Does the institution use its sustainable investment policy to select and guide investment managers?: Yes

A brief description of how the sustainable investment policy is applied:

Goldman Sachs serves as the outsourced Chief Investment Officer (CIO) for Stevens and is responsible for making investment recommendations to the Investment Committee of the university. Goldman Sachs currently manages 87% of the endowment investments, most of which are passive investments in ETFs (exchange-traded funds). As per the above stated mission and the attached document, Goldman is pursuing increased investments in sustainable/socially responsible funds.

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?:

No

A copy of the proxy voting guidelines or proxy record:

A brief description of how managers are adhering to proxy voting guidelines:

There is a formal record kept in the minutes, but there is no proxy voting or delegation of votes.

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 participate in a public divestment effort and/or have a publicly available investment policy with negative screens?:

A brief description of the divestment effort or negative screens and how they have been implemented:

Approximate percentage of endowment that the divestment effort and/or negative screens apply to:

Does the institution engage in policy advocacy by participating in investor networks and/or engage in inter-organizational collaborations to share best practices?:

A brief description of the investor networks and/or collaborations:

Website URL where information about the institution's sustainable investment efforts is available: https://www.goldmansachs.com/what-we-do/sustainable-finance/index.html

Additional documentation to support the submission:

Responsible Party

Joe Cassidy

AVP

Finance

1.00 / 1.00

Criteria

Institution makes a snapshot of its investment holdings available to the public on at least an annual basis. Investment holdings must include the amount invested in each fund and/or company, and may also include proxy voting records (if applicable).

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

Does the institution make a snapshot of its investment holdings available to the public?: Yes

A copy of the investment holdings snapshot:

PA 11 Endowment Report 2019-web.pdf

Website URL where the investment holdings snapshot is publicly available:

Percentage of the total investment pool included in the snapshot of investment holdings at each of the following levels of detail:

	Percentage (0-100)
Specific funds and/or companies	100
Investment managers and/or basic portfolio composition (i.e. asset classes), but not specific funds or companies	0

Does the institution engage in proxy voting?:

No

Are proxy voting records included in the snapshot of investment holdings?:

Website URL where information about the institution's investment pool is available:

Additional documentation to support the submission:

PA_11_Asset_Allocation.pdf

Wellbeing & Work

Points Claimed 2.77

Points Available 7.00

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 offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers and by acting to protect and positively affect the health, safety and wellbeing of the campus community.

Credit	Points
Employee Compensation	1.02 / 3.00
Assessing Employee Satisfaction	0.62 / 1.00
Wellness Program	0.50 / 1.00
Workplace Health and Safety	0.63 / 2.00

Employee Compensation

Provisional Score

1.02 / 3.00

Responsible Party Maria Ouckama AVP Human Resources

Criteria

Part 1. Living wage for employees

More than 75 percent of the institution's employees receive a living wage (benefits excluded).

Include all employees (full-time, part-time, and temporary/adjunct) in Part 1. An institution may choose to include or omit student workers, who are covered in the Student Living Wage credit in Exemplary Practice.

Part 2. Living wage for employees of contractors

Institution is able to verify that more than 75 percent of the employees of any significant contractors that are present onsite as part of regular and ongoing campus operations receive a living wage (benefits excluded).

Include all regular (i.e., permanent), part-time and full-time workers employed by significant contractors in Part 2. Examples include, but are not limited to, employees of regular providers of dining/catering, cleaning/janitorial, maintenance, groundskeeping, professional, transportation, and retail services. Construction workers and other employees of contractors that work on-site on a temporary or irregular basis may be excluded, as may student workers employed by contractors.

An institution without wage data for its contractors may report the percentage of employees of contractors covered by collective bargaining agreements (i.e., union contracts) in lieu of the above.

Part 3. Minimum total compensation for employees

Total compensation provided to the institution's lowest paid regular (i.e., permanent), part-time or full-time employee or pay grade meets or exceeds the local living wage.

Provisional compensation for newly hired, entry-level employees (e.g., compensation provided during the first six months of employment) may be excluded from Part 3. An institution may choose to include or omit student workers.

Determining the local living wage

To determine the local living wage:

- A U.S. institution must use the Living Wage Calculator hosted by the Massachusetts Institute of Technology to look up the living wage for "2 Adults, 2 Children" (which assumes both adults are working) for the community in which the main campus is located.
- A Canadian institution must use Living Wage Canada's standards (if a living wage has been calculated for the community in which the main campus is located) or else the appropriate after tax Low Income Cut-Off (LICO) for a family of four (expressed as an hourly wage),
- An institution located outside the U.S. and Canada must use a local equivalent of the above standards if available or else the local poverty indicator for a family of four (expressed as an hourly wage).

Please note that a family of four is used to help harmonize the living wage standards and poverty indicators used in different countries and is not assumed to be the most common or representative family size in any particular context. For further guidance in determining the local living wage, see Measurement.

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

The local living wage (based on a family of four and expressed as an hourly wage): 18.78 US/Canadian \$

Percentage of employees that receive a living wage (benefits excluded): 84

Does the institution have significant contractors with employees that work on-site as part of regular and ongoing campus operations?:

Yes

A list or brief description of significant on-site contractors:

We have outsourced our dining services and garden work

Percentage of employees of on-site contractors known to receive a living wage or be covered by collective bargaining agreements (i.e., union contracts): 100

Total compensation provided to the institution's lowest paid regular, part-time or full-time employee or pay grade meets or exceeds what percentage of the living wage?:

None of the above (i.e. the lowest paid regular employee or pay grade earns less than the living wage)

A brief description of the minimum total compensation provided to the institution's lowest paid employee or pay grade:

We have a compensation philosophy to pay market based competitive wages. Our minimum salary grade starts at \$27,600 which coverts to an hourly rate of \$15.16. This is based on a 35 hour work week over 52 weeks. This is 81% of the living wage of \$18.78.

Has the institution made a formal commitment to pay a living wage?:

Yes

A copy or brief description of the institution's written policy stating its commitment to a living wage:

We have a compensation philosophy to pay market based competitive wages. Our minimum salary grade starts at \$27,600 which coverts to an hourly rate of \$15.16. This is based on a 35 hour work week over 52 weeks.

This is above the living wage for a family of two, with no children (\$11.10), but not a family of 4.

Website URL where information about employee compensation is available:

Additional documentation to support the submission:

0.62 / 1.00

Responsible Party Maria Ouckama AVP

Human Resources

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 a survey or other evaluation that allows for anonymous feedback to measure employee satisfaction and engagement during the previous three years?:

Percentage of employees assessed, directly or by representative sample:

A brief description of the institution's methodology for evaluating employee satisfaction and engagement:

We engaged Chronicles of Higher Ed and rolled out the Best College/University to work for survey

A brief description of the mechanism(s) by which the institution addresses issues raised by the evaluation:

We first created a committee to review the findings and from the findings identify the top issues/items to address. The committee developed recommendations/solutions and those we were presented to different leadership groups including faculty senate, admin council, and cabinet and president. One suggestion was reviews of senior leadership, so a consulting company was engaged company to come in and conduct 360 senior leadership reviews and provide feedback and action plans.

Website URL where information about the employee satisfaction and engagement evaluation is available:

Additional documentation to support the submission:

Wellness Program

Provisional Score

0.50 / 1.00

Responsible Party Maria Ouckama AVP Human Resources

Criteria

Part 1. Wellness program

Institution has a wellness and/or employee assistance program that makes available counseling, referral, and wellbeing services to students and/or employees.

Part 2. Smoke-free environments

Institution prohibits smoking (as defined by the institution) within all occupied buildings that it owns or leases, and either:

- 1. Restricts outdoor smoking (e.g., by designating smoking areas or smoke-free spaces), OR
- 2. Prohibits smoking and tobacco use across the entire campus.

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

Does the institution have a wellness program that makes counseling, referral, and wellbeing services available to all students?:

Yes

Does the institution have a wellness and/or employee assistance program that makes counseling, referral, and wellbeing services available to all academic staff?:

Yes

Does the institution have a wellness and/or employee assistance program that makes counseling, referral, and wellbeing services available to all non-academic staff?:

A brief description of the institution's wellness and/or employee assistance program(s):

- Student Fitness and Physical Education: All undergrads must take 4 physical education classes to graduate. There is a very strong intramural program available to all undergraduate and graduate students. Over 60 unique physical education classes are offered through the University Athletics department, from sports such as men's and women's soccer, basketball, and squash to activities such as scuba diving, tai chi, and various martial arts. Students can choose classes that they feel best suit their personal athletic needs. In addition to the 60 physical education classes offered, Stevens has 24 varsity sports offered through the University Athletics Department.
- Student Health Services: The Health Center is open Monday through Friday, from 9 to 4 pm and on Thursdays until 7 pm. There is a RN on duty from 9 to 4 pm every day and a LPN from 4 to 7 pm on Thursdays. For care by an MD, the Health Center refers students to two local offices: Riverside Medical and Aster Care.
- Student Wellness Fair: The Student Counseling and Disability Services hosted an inaugural annual Wellness Fair in Fall 2015 to offer resources for and promote healthy lifestyle practices among students. The Wellness Fair featured yoga sessions, healthy food sampling, massage therapy, hypnotherapy, and nutrition guidance.
- Promoting Healthy Lifestyles for Staff: All employees have free access to the on campus Stevens Athletic Facilities.
- Nutrition: Stevens Dining's Nutrition Program and Services are designed to broaden the university community's knowledge of health and nutrition, while expanding the palates of students and improving their food choices. The Stevens Institute of Technology Campus Dietitian helps to provide students with the tools essential for a healthy diet. The Dietitian also works one-on-one with students on a daily basis to assist them in meeting individual dietary needs, such as managing food allergies to fueling workouts.
- o The Nutrition Services provided by Stevens Dining are designed to have a broad impact on the campus community by providing services free of charge to students, groups, faculty and staff, and athletic teams, coaches, and directors. The services at Stevens Institute of Technology are led by a nationally accredited Registered Dietitian, Alexa McDonald, and provide a wide-range of nutrition and health-related services, including:

 Individual & Group Nutrition Coaching/Counseling
- Table Events in the Dining Hall and throughout the Campus
- Guest Presentations and Lectures
- Yearly Weight Loss Challenge (Spring Semester)
- · Dietary Advisory Boards
- Diet & Menu Analysis

Meekly table events about the campus Superfood of the month, Food Allergy Awareness Month, Meatless Mondays featuring plant-based protein sources, and Antioxidant Health for Disease Prevention.

関 Group presentations about "The Sports Nutrition Diet" (to the wrestling team), "Ouick & Easy Tips for a Fueled

Lifestyle", "Dorm Room Snacking Done Right", and "Healthy Mocktails" for Alcohol Awareness Week with the Peer Educators.

閉 A weekly column in the school newsletter about healthy foods, diet, and nutrition.

Stevens offers support to all employees who have questions or need of counseling and help in overcoming personal problems. The Employee Assistance Program (EAP) services are offered through CIGNA; many services are available 24 hours a day, 7 days a week. You can speak with a licensed clinician and/or arrange for up to three face-to-face sessions with local counselors. In addition, CIGNA's EAP website and toll-free number gives you access to research issues on your own.

Does the institution prohibit smoking within all occupied buildings owned or leased by the institution?: Yes

Does the institution restrict outdoor smoking?:

No

Does the institution prohibit smoking and tobacco use across the entire campus?:

No

A copy of the institution's smoke-free policy:

The institution's smoke-free policy:

https://web.stevens.edu/catalog/archive/2014-2015/policies.html

Additional documentation to support the submission:

Workplace Health and Safety

Provisional Score

0.63 / 2.00

Responsible Party

David Fernandez

Director

Environmental Health and Safety

Criteria

Part 1. Health and safety management system

Institution has an occupational health and safety management system (OHSMS).

The system may use a nationally or internationally recognized standard or guideline (see Standards and Terms for a list of examples) or it may be a custom management system.

Part 2. Incidents per FTE employee

Institution has less than four annual recordable incidents of work-related injury or ill health per 100 full-time equivalent (FTE) employees.

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

Does the institution have an occupational health and safety management system (OHSMS)?:

Does the system use a nationally or internationally recognized standard or guideline?:

The nationally or internationally recognized OHSMS standard or guideline used:

A brief description of the key components of the custom OHSMS:

Annual number of recordable incidents of work-related injury or ill health:

13

Full-time equivalent of employees:

873

Full-time equivalent of workers who are not employees, but whose work and/or workplace is controlled by the institution:

A brief description of the methodology used to track and calculate the number of recordable incidents of work-related injury or ill health:

Employees are required to report all workplace injuries/illnesses to Stevens Human Resources. Human Resources then reports the injury/illness to our Workers Compensation Insurance carrier, only injury/illnesses required by OSHA to be recorded are recorded on our OSHA 300A log.

Annual number of recordable incidents of work-related injury or ill health per 100 FTE employees: 1.49

Website URL where information about the occupational health and safety program is available:

Additional documentation to support the submission:

Innovation & Leadership

Innovation & Leadership

Points Claimed 3.00
Points Available 4.50

The credits in this category recognize institutions that are seeking innovative solutions to sustainability challenges and demonstrating sustainability leadership in ways that are not otherwise captured in STARS.

Innovation & Leadership credits recognize:

- Emerging best practices (e.g., seeking independent assurance of STARS data prior to submission).
- Initiatives and outcomes that are a step beyond what is recognized in a standard credit (e.g., achieving third party certification for a program or exceeding the highest criterion of an existing credit).
- Exemplary initiatives and outcomes that are only relevant to a minority of institution types or regions (e.g., participation in green hospital networks).
- Innovative programs and initiatives that address sustainability challenges and are not covered by an existing credit.

A catalog of currently available Innovation & Leadership credits is available in the STARS Reporting Tool and on the STARS website. These credits may be claimed in multiple submissions as long as the criteria are being met at the time of submission.

Scoring

Each Innovation & Leadership credit is worth a maximum of 0.5 bonus points. An institution's overall, percentage-based STARS score is increased by the number of these points it earns. For example, if an institution earned 30 percent of available points in the four main STARS categories, earning 2 Innovation & Leadership points would raise its final overall score to 32.

An institution may claim any combination of Innovation & Leadership credits and may include as many of these credits in its report as desired, however the maximum number of bonus points applied toward scoring is capped at 4.

Credit	Points
Bicycle Friendly University	0.00 / 0.50
Diversity and Equity Recognition	0.50 / 0.50
Laboratory Animal Welfare	0.50 / 0.50
Nitrogen Footprint	0.00 / 0.50
Single-Use Plastic Ban	0.50 / 0.50
Innovation A	0.00 / 0.50
Innovation B	0.50 / 0.50
Innovation C	0.50 / 0.50
Innovation D	0.50 / 0.50

Responsible Party

Robert Maffia

0.00 / 0.50

Vice President Campus and Facilities Operations

Criteria

Institution is currently recognized by one of the following:

- · League of American Bicyclists: Bicycle Friendly University
- Mouvement Velosympathique (Quebec)
- Share the Road (Canada)
- Cycle Friendly Employer (CFE-UK)
- An equivalent third party certification program for cycling infrastructure and support approved by AASHE.

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

Is the institution currently recognized by one of the following bicycle-friendly recognition programs?:

	Yes or No
League of American Bicyclists: Bicycle Friendly University	Yes
Mouvement Velosympathique (Quebec)	
Share the Road (Canada)	
Cycle Friendly Employer (CFE-UK)	
An equivalent third party certification program for cycling infrastructure and support	

Which of the following best describes the institution's bicycle-friendly recognition level?: At mid-level or below

Documentation affirming the bicycle-friendly recognition:

Website URL affirming the bicycle-friendly recognition:

http://www.stevens.edu

Additional documentation to support the submission:

0.50 / 0.50

Responsible Party

Gotham 360 Gotham360

Consultant Facilities Operations

Criteria

Institution has been formally recognized for leadership in diversity, equity, and/or inclusion during the previous three years by.

- Athena SWAN Charter (Advance HE)
- Award for Diversity and Inclusion (NCAA and MOAA)
- Canada's Best Diversity Employers
- Diversity Champion (INSIGHT Into Diversity magazine)
- Diversity Index of 0.70 or higher (U.S. News)
- Inclusion Cultivates Excellence Award (CUPA-HR)
- Institutional Excellence Award (National Association of Diversity Officers in Higher Education)
- Race Equality Charter (Advance HE)
- An equivalent national or international third party recognition program for leadership in diversity, equity, and/or inclusion approved by AASHE

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

Has the institution been formally recognized for leadership in diversity, equity, and/or inclusion during the previous three years by a national or international program? :

Yes

A brief description of the diversity, equity, and/or inclusion recognition:

The American Society for Engineering Education recognized Stevens Institute of Technology with a Bronze Award in its inaugural Diversity Recognition Program.

Documentation affirming the diversity, equity, and/or inclusion recognition:

Website URL where documentation affirming the diversity, equity, and/or inclusion recognition is available:

https://diversityrecognition.asee.org/award-recipients/

Additional documentation to support the submission:

Data source(s) and notes about the submission:

https://www.stevens.edu/news/asee-designates-stevens-bronze-award-diversity

Responsible Party
Gotham 360 Gotham360
Consultant
Facilities Operations

0.50 / 0.50

Criteria

Institution has a written policy explicitly prohibiting laboratory animals in its care from being subjected to severe and unrelieved pain and distress. Policies that prohibit animal testing altogether also qualify.

To earn this credit, an institution must be engaged in animal research and/or research that could potentially include animal subjects.

Policies at the national, regional or state/provincial level to which the institution adheres count if such policies fully meet the criteria outlined above. Policies that could potentially allow severe pain and distress (e.g., U.S. federal guidelines) do not count.

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

Does the institution have a written policy explicitly prohibiting laboratory animals in its care from being subjected to severe and unrelieved pain and distress?:

Yes

The written policy explicitly prohibiting laboratory animals in the institution's care from being subjected to severe and unrelieved pain and distress:

A copy of the written policy explicitly prohibiting laboratory animals in the institution's care from being subjected to severe and unrelieved pain and distress:

IN 23 - Animals Used in Research and Teaching.pdf

Website URL where information about the laboratory animal welfare program is available: https://www.stevens.edu/about-stevens/university-policy-library/sponsored-programs

Additional documentation to support the submission:

Nitrogen Footprint

Provisional Score

Responsible Party

Gotham 360 Gotham 360

Consultant Facilities Operations

0.00 / 0.50

Criteria

Institution has calculated and publicly reported on its nitrogen footprint within the previous three years.

The nitrogen footprint includes utilities, food consumption, fertilizer use and transportation and may also include food production and research animals, if applicable.

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

A copy of the institution's nitrogen footprint:

Nitrogen_Results___SIMAP.pdf

Website URL where the institution's nitrogen footprint is available:

Are the following included in the institution's nitrogen footprint?:

	Yes, No, or N/A
Utilities	Yes
Food consumption	No
Food production	No
Fertilizer use	No
Transportation	No
Research animals	No

Year the institution's nitrogen footprint was completed or last updated: 2,020

A brief description of the methodology or tool used to calculate the institution's nitrogen footprint:

Nitrogen footprint for FY2019 calculated using SIMAP

Additional documentation to support the submission:

0.50 / 0.50

Responsible Party

Gotham 360 Gotham 360

Consultant Facilities Operations

Criteria

Institution has banned or eliminated the on-site sales and distribution of at least one type of single-use disposable plastic, for example:

- Straws
- · Beverage bottles
- · Shopping bags
- · Food serviceware, containers, or utensils
- Polystyrene (Styrofoam™) products
- · Individually packaged items (e.g., napkins, condiments, and baked goods)

To qualify, a single-use disposable plastic must have been banned or eliminated across the entire institution. Biodegradable plastic options may be used if they are both certified compostable and used in conjunction with a campus composting program.

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

Has the institution banned or eliminated the on-site sales and distribution of at least one type of single-use disposable plastic?:

Yes

A brief description of the single-use disposable plastics that have been banned or eliminated:

As per the ordinance passed by the City of Hoboken, there is a ban on single use plastic carry-out bags at retail and food establishments.

"Retail and food establishments shall no longer provide single use plastic carry-out bags to customers. Instead, retail and food establishments shall encourage customers to bring their own reusable bags, and make paper bags available to customers for a fee of 10-25 cents per bag."

Website URL where information about the single-use disposable plastic ban(s) is available: https://www.hobokennj.gov/resources/plastic-bags

Additional documentation to support the submission:

Responsible Party

Andrew Lowenstein

Doctor

Ailr

0.00 / 0.50

Criteria

Innovation credits are open-ended and reserved for new, extraordinary, unique, groundbreaking, or uncommon outcomes, policies, and practices that address sustainability challenges and are not covered by an existing credit or exemplary practice option.

- 1) In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
- 2) Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
- 3) The innovative practice, policy, program, or outcome must be ongoing or have occurred within the three years prior to the anticipated date of submission.
- 4) The innovative practice or program has to be something that the institution has already implemented; planned activities do not count.
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- 6) 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.
- 7) Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
- 8) 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.

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To help verify that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, the institution may submit a letter of affirmation from an individual with relevant expertise in the associated content area or a press release or publication featuring the innovation.

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Name or title of the innovative policy, practice, program, or outcome:

A brief description of the innovative policy, practice, program, or outcome that outlines how credit criteria are met and any positive measurable outcomes associated with the innovation:

Which of the following impact areas does the innovation most closely relate to? (select up to three):

--

A letter of affirmation from an individual with relevant exper	tise or a press release or publication
featuring the innovation :	

The website URL where information about the innovation is available :

Additional documentation to support the submission:

Responsible Party

Dibs Sarkar

0.50 / 0.50

Professor Civil Environmental and Ocean Engineering

Criteria

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Name or title of the innovative policy, practice, program, or outcome:

Development of engineered mulch for removal of metals and phosphate from stormwater in rain gardens

A brief description of the innovative policy, practice, program, or outcome that outlines how credit criteria are met and any positive measurable outcomes associated with the innovation:

Engineered mulch is an effective retrofit for rain garden which can help to remove metals and phosphate from stormwater before they get into stormwater system and contaminate our water bodies. This engineered mulch is generated by coating regular wood mulch with drinking water treatment residuals (WTRs), using organic materials. Stormwater pollution is one of the major environmental problems in many areas across states and countries which links to human health risk. Many approaches have been developed to address this problem. However, it usually requires land to implement and comes with a high price tag which make those options not feasible to many

communities. By coupling a simple material that can be found in most gardens like mulch with a freely available, yet highly effective sorbent like WTRs, the problems can be alleviated in environmentally friendly and economical manners, which ultimately benefit to all the main three pillars of sustainability: economy, society, and environment. The mulch was developed and tested in laboratory conditions by Stevens students and faculty. It is used in the ABS rain garden on Stevens' campus. There are also plans to put it into the test in the Secaucus rain garden through a partnership with the Township of Secaucus, NJ.

Which of the following impact areas does the innovation most closely relate to? (select up to three):

Research Public Engagement Water

A letter of affirmation from an individual with relevant expertise or a press release or publication featuring the innovation :

Innovation_Letter-Sarkar-STARS.pdf

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

Additional documentation to support the submission:

Responsible Party

Dibs Sarkar

0.50 / 0.50

Professor Civil Environmental and Ocean Engineering

Criteria

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Name or title of the innovative policy, practice, program, or outcome:

Deep Ocean Remotely Monitored (DORM) Offshore Farming System

A brief description of the innovative policy, practice, program, or outcome that outlines how credit criteria are met and any positive measurable outcomes associated with the innovation:

An interdisciplinary team of student-engineers developed a unique solution to the strain of population growth and climate change on our food systems. Their Deep Ocean Remotely Monitored (DORM) alpha prototype is a proof-of-concept for an ocean farming system that collects data and monitors the growth of seaweed, an alternative food crop that could change the way the planet eats.

The prototype is a fully researched and vetted power generation system, taking advantage of wave motions to generate sufficient power to properly outfit a remote farm. This involves sensors capable of monitoring farm performance despite waves, growth cycles, and extreme circumstances. Such a system would provide farmers with a reliable way to track production and enable them to expand their farms to include several systems all monitored from a central location.

Which of the following impact areas does the innovation most closely relate to? (select up to three):
Research
Food & Dining

A letter of affirmation from an individual with relevant expertise or a press release or publication featuring the innovation :

The website URL where information about the programs or initiatives is available: https://www.stevens.edu/news/stevens-students-float-prototype-combat-effects-climate-change

Additional documentation to support the submission:

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Data source(s) and notes about the submission:

Further developments and plans for the project: https://challenges.openideo.com/challenge/food-system-vision-prize/open-submission/autonomous-a quaculture-changing-how-seaweed-is-grown-and-eaten

https://www.furthlab.com/current-projects (Offshore seaweed farming)

Responsible Party

Dibs Sarkar

0.50 / 0.50

Professor Civil Environmental and Ocean Engineering

Criteria

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Name or title of the innovative policy, practice, program, or outcome:

Development of a Green Filter Media for use in Catch Basin Inserts in Storm Drains: Petroleum Hydrocarbon Removal

A brief description of the innovative policy, practice, program, or outcome that outlines how credit criteria are met and any positive measurable outcomes associated with the innovation:

Petroleum hydrocarbon-contaminated road runoff can cause short- and long-term ecological problems once it reaches surface waters. Various best management practices (BMP) have been developed to mitigate road runoff-induced flooding issues, but most of them were not designed to address the issue of water pollution. In a research study, a group of students and faculty advisors developed a green filter media and tested its efficiency in removing total petroleum hydrocarbons (TPH) in a parking lot in Brick Township, NJ. The green filter media consisted of sand,

carbon material (CM), and aluminum-based drinking water treatment residuals (Al-WTR), a byproduct of alum coagulation during drinking water treatment.

The field study was conducted for 4 months, from August 2017 to November 2017. Representative influent and effluent samples from 8 storm events were extracted for TPH with n-pentane and analyzed by GC-MSD. Filter media was found to be effective in removing TPH from stormwater, and was comparable to catch basin inserts with no filter media in terms of water flow through rates (ie. no water pooling was observed at the site of catch basins with filter media). This filter media previously demonstrated its effectiveness in removing metals (Pb, Zn, Cu) and turbidity in stormwater. Hence, the filter media offers a sustainable solution to point-source pollution problems associated with urban runoff.

Due to the success of the installation in Brick Township, green filter media was recently installed on campus, and will continue to be monitored and contribute data towards a PhD dissertation.

Which of the following impact areas does the innovation most closely relate to? (select up to three):

Research

Water

A letter of affirmation from an individual with relevant expertise or a press release or publication featuring the innovation :

Innovation Letter-Sarkar-STARS.pdf

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

Additional documentation to support the submission:

stars.aashe.org Stevens Institute of Technology | STARS Report |
PREVIEW