

Vanderbilt University

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

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Table of Contents

Institutional Characteristics	3
Institutional Characteristics	3
Academics	11
Curriculum	11
Research	36
Engagement	51
Campus Engagement	51
Public Engagement	82
Operations	96
Air & Climate	96
Buildings	106
Dining Services	116
Energy	124
Grounds	136
Purchasing	143
Transportation	160
Waste	174
Water	188
Planning & Administration	197
Coordination, Planning & Governance	197
Diversity & Affordability	214
Health, Wellbeing & Work	220
Investment	225
Innovation	230
Innovation	230

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

Institutional Characteristics

Institutional Characteristics

The passthrough subcategory for the boundary

Credit
Institutional Boundary
Operational Characteristics
Academics and Demographics

Institutional Boundary

Criteria

This won't display

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

Institution type:

Doctorate

Institutional control:

Private non-profit

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

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

Reason for excluding agricultural school:

No agricultural school at Vanderbilt University

Reason for excluding medical school:

N/A

Reason for excluding pharmacy school:

No pharmacy school at Vanderbilt University

Reason for excluding public health school:

No public health school at Vanderbilt University

Reason for excluding veterinary school:

No veterinary school at Vanderbilt University

Reason for excluding satellite campus:

No Vanderbilt University satellite campuses

Reason for excluding hospital:

N/A

Reason for excluding farm:

No farm at Vanderbilt University

Reason for excluding agricultural experiment station:

No agricultural experiment station at Vanderbilt University

Narrative:

Operational Characteristics

Criteria

n/a

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

Endowment size:

3,300,000,000 *US/Canadian \$*

Total campus area:

330 *Acres*

IECC climate region:

Mixed-Humid

Locale:

Mid-size city

Gross floor area of building space:

18,200,000 *Gross Square Feet*

Conditioned floor area:

Floor area of laboratory space:

417,062 *Square Feet*

Floor area of healthcare space:

11,500,000 *Square Feet*

Floor area of other energy intensive space:

42,821.76 *Square Feet*

Floor area of residential space:

1,744,529 *Square Feet*

Electricity use by source::

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

Biomass	---
Coal	---
Geothermal	---
Hydro	---
Natural gas	---
Nuclear	---
Solar photovoltaic	---
Wind	---
Other (please specify and explain below)	100

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

20% of VU's electricity comes from excess steam generated at the on-campus co-generation plant, which is dual fueled with coal and natural gas. The remaining electricity comes from TVA, with 41% from coal, 9% from hydro, 12% from natural gas, 38% from nuclear and <1% from other renewable resources.

Energy used for heating buildings, by source::

	Percentage of total energy used to heat buildings (0-100)
Biomass	---
Coal	---
Electricity	---
Fuel oil	---
Geothermal	---
Natural gas	---

Other (please specify and explain below)

100

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

100% of steam used for heating buildings comes from VU's co-generation plant, which is dual fueled with coal and natural gas.

Academics and Demographics

Criteria

n/a

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

Number of academic divisions:

10

Number of academic departments (or the equivalent):

49

Full-time equivalent enrollment:

12,321

Full-time equivalent of employees:

24,429

Full-time equivalent of distance education students:

0

Total number of undergraduate students:

6,835

Total number of graduate students:

5,875

Number of degree-seeking students:

12,710

Number of non-credit students:

0

Number of employees:

25,026

Number of residential students:

6,048

Number of residential employees:

19

Number of in-patient hospital beds:

1,019

Academics

Curriculum

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

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

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

Part 2

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

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

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

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

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

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

Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances. Asking faculty and departments to self-identify sustainability courses and courses that include sustainability using the definitions outlined in *Standards and Terms* or looking at the stated learning outcomes and course objectives associated with each course may provide a richer view of sustainability course offerings than simply reviewing course descriptions, but it is not required.

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

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

	Undergraduate	Graduate
Total number of courses offered by the institution	2,839	2,664
Number of sustainability courses offered	108	24
Number of courses offered that include sustainability	179	27

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

29

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

50

Number of years covered by the data:

One

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

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

1. AMER 115F-02: Culture and Thought
2. AMER 294: American Studies Workshop: Blue Gold: Water Rights and Wrongs
3. AMER 295: Global Warming: Science, Politics, Economy & Culture
4. ANTH 101: Introduction to Anthropology
5. ANTH 104: Introduction to Archaeology
6. ANTH 207: Environmental Anthropology
7. ANTH 208 Food Politics in America
8. ANTH 249: Indigenous Peoples of Lowland South America
9. ANTH 282: Anthropological Approaches to Human Landscapes
10. ANTH 294: Fashioning Forests, Fabricating Nature
11. BME 249: Biomedical Engineering Service Learning and Leadership
12. BSCI 100: Biology Today
13. BSCI 101a: Biology Today Laboratory

14. BSCI 115F: Genes and Society
15. BSCI 118: Green Earth: The Biodiversity and Evolution of Plants.
16. BSCI 218: Introduction to Plant Biology
17. BSCI 219: Introduction to Zoology
18. BSCI 233: Conservation Biology
19. BSCI 237: Ecology Lab
20. BSCI 238: Ecology
21. BSCI 336: Seminar in Ecology and Evolutionary Biology
22. BSCI 239: Behavioral Ecology
23. CE 160: Civil and Environmental Engineering Information Systems I
24. CE 161: Civil and Environmental Engineering Information Systems II
25. CE 200A: Directed Study
26. CE 200B: Directed Study
27. CE 200C: Directed Study
28. CE 200B: Sustainable Buildings II
29. CE 200C: Sustainable Buildings III
30. CE 203: Fluid Mechanics
31. CE 205W: Civil and Environmental Engineering Laboratory
32. CE 226: Environmental Engineering
33. CE 227: Water Resources Engineering
34. CE 240: Geotechnical Engineering
35. CE 252: Civil and Environmental Engineering Seminar
36. CE 259: Geographic Information Systems
37. CE 290: Reliability and Risk Case Studies
38. CE 298: Building Systems and LEED
39. CE 299: Environmental Science Capstone; Special Topics
40. CE 371A: Reliability and Risk Engineering Seminar
41. CE 371B: Reliability and Risk Engineering Seminar
42. CHBE 280: Atmospheric Pollution
43. DIV 3026: Prophetic Preaching and Social Justice Ethics
44. DIV 3331: Theology of Nature
45. DIV 3523: Sacred Space in the Tibetan World
46. DIV 3952: Foundation of Ethical Leadership
47. DIV 3952: Ethics and Public Policy
48. DIV 4031: Community and Sustainable Development
49. ECON 228 Environmental Economics
50. EECE 291: Special Topics: Energy and Sustainability
51. EES 99: Commons Seminar: Antarctic Exploration, Nature
52. EES 101: Dynamic Earth
53. EES 103: Oceanography
54. EES 107: Volcanoes: Impacts on Earth and Society
55. EES 108: Earth and Atmosphere
56. EES 111: Dynamic Earth Laboratory
57. EES 114: Ecology, Evolution, and Climates through Time
58. EES 115F-06: Climate Change and Human History
59. EES 140: Iceland's Geology
60. EES 201: Global Climate Change
61. EES 202: Earth Systems through Time

62. EES 205: Science, Risk, and Policy
63. EES 220: Life Through Time
64. EES 225: Earth materials
65. EES 226: Petrology
66. EES 230: Sedimentology
67. EES 240: Structural Geology and Rock Mechanics
68. EES 255: Transport Processes in Earth and Environmental Systems
69. EES 261: Geomorphology
70. EES 268: Paleoclimates
71. EES 275: Sustainable Systems Science
72. EES 282: Paleoecological Methods
73. EES 285: Volcanic Process
74. EES 289A: Directed Study
75. EES 289B: Directed Study
76. EES 290: Special Topics: Physics of Climate Systems
77. EES 291A: Independent Study
78. EES 291B: Independent Study
79. EES 292A: Senior Honors Research
80. EES 292b: Senior Honors Research
81. EES 299: Special Seminar
82. EES 331: Special Topics: Advanced Topics in Earth Materials
83. ENGL 211W: Writing for an Endangered World: Representative U.S. Writers Tackle Sustainability
84. ENGL 243: Literature, Science and Technology — Green Romanticism: Can Poetry Save the Earth?
85. ENGL 245: Literature and the Environment
86. ENGL 287: Investigative Writing: Climate Change: Exploring Environmental Crisis
87. ENGL 288: Special Topics: Whole Walden
88. ENGM 216: Engineering Economy.
89. ENGM 273: Systems Engineering.
90. ENGM 275: Technology Assessment and Forecasting
91. ENVE 220A: Sustainable Development
92. ENVE 220B: Sustainable Development Field Experience
93. ENVE 220C: Sustainable Development Research
94. ENVE 252: Physical Hydrology
95. ENVE 254: Energy and Water Resources
96. ENVE 260: Solid and Hazardous Waste Management
97. ENVE 262: Hydrology
98. ENVE 264: Environmental Assessments
99. ENVE 270: Environmental Thermodynamics, Kinetics, and Mass Transfer
100. ENVE 271: Environmental Chemistry
101. ENVE 272: Biological Unit Processes
102. ENVE 273: Environmental Characterization and Analysis
103. ENVE 274: Surface Water Quality Modeling
104. ENVE 276: Groundwater Hydrology
105. ENVE 277: Physical/Chemical Unit Processes
106. ENVE 285: Introduction to Nuclear Environmental Engineering
107. ENVE 296: Enterprise Risk Management
108. ENVE 312: Pollutant Transport in the Environment.
109. ENVE 325A: Individual Study

110. ENVE 325B: Individual Study
111. ENVE 325C: Individual Study
112. ENVE 330: Nuclear Facilities Life Cycle Engineering
113. ENVE 332: Storage, Treatment and Disposal of Radioactive Waste
114. ENVE 334: Nuclear Environmental Regulation, Law, and Practice
115. ENVE 369: Master's Thesis Research
116. ENVE 379: Non-Candidate Research
117. ENVE 389: Master of Engineering Project
118. ENVE 399: Ph.D. Dissertation Research
119. ENVS 99: Commons Seminar – Green Jobs 101
120. ENVS 278: Capstone Seminar
121. ES 101.01: “Environmental Consequences of Electric Power Generation with Emphasis on Nuclear Power”
122. ES 290: Special Topics: Intro to Engineering, Science, and Public Policy
123. EUS 240: Special Topics: Zoos and Gardens in European Culture
124. HART 260W: Ancient Landscapes
125. HIST 148: The Darwinian Revolution
126. HIST 287b: History of New Orleans
127. HOD 2610: Community Development Organizations and Policies
128. HOD 2690-01 : Environmental Geography and the City
129. HOD 2960: Senior Thesis
130. LAW 698: International Trade Short Course
131. LAW 699: Oil and Gas Law Short Course
132. LAW 732: Environmental Law
133. LAW 759: Energy Law
134. LAW 760: Ecosystems Management
135. LAW 763: International Environmental Law
136. LAW 770: Land Use Planning
137. LAW 777: Law and Business of Climate Change
138. LAW 784: Practicing Environmental Law
139. LAW 821: Environmental Annual Review
140. LAW 833: Law Practice 2050
141. LAW 960 Philosophy of International Law Seminar
142. LAW 962: Renewable Power Seminar
143. LAW 963: Sustainable Cities Seminar
144. LAW 964: Endangered Species Law
145. LWEC 430: Risk and Environmental Regulation I
146. LWEC 431: Risk and Environmental Regulation II
147. ME 210: Special Topics: Nuclear Power
148. ME 260: Energy Conversion I
149. ME 262: Environmental Control
150. ME 264: Internal Combustion Engines
151. ME 265: Direct Energy Conversion
152. ME 327: Energy Conversion Systems
153. ME 391: Special Topics: Energy Storage Technology
154. MGT 420: The Future of Energy Markets in a Low-Carbon Economy
155. MGT 421. Financial Analysis of ESG Data.
156. MGT 423: Corporate Strategies for Environmental, Social and Governance Issues
157. MGT 428: Social Enterprise and Entrepreneurship

- 158. PHIL 115F-05: Green Cities
- 159. PHIL 245: Humanity, Evolution, and God.
- 160. PHIL 273 Environmental Philosophy
- 161. PHIL 274: Ethics and Animals
- 162. PSCI 215: Change in Developing Countries
- 163. PSCI 253: Ethics and Public Policy
- 164. PSY 115F: Environment, Behavior, and Health
- 165. RLST 221: Ethics and Ecology
- 166. RLST 272: Religion, Ecology, and Power in Africa
- 167. SOC 102: Social Issues: Environment and Society
- 168. SOC 115F-19: Sociology of Local Sustainability
- 169. SOC 206: Sociology of Health and Environmental Science
- 170. SOC 207: Climate Change and Society
- 171. SOC 208: Environment and Development
- 172. SOC 221: Environmental Inequality and Justice
- 173. SOC 225: Women and Social Activism
- 174. SOC 252: Law and Social Movements
- 175. SOC 270: Human Ecology and Society
- 176. SPAN 115F-08: Ecocritical Perspectives in Latin American Literature
- 177. WGS 115F-04: Environmental Justice
- 178. WGS 268: Gender, Race, Justice, and the Environment
- 179. WGS 270: Ecofeminism: Theory, Politics, and Action

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

<http://www.vanderbilt.edu/catalogs>

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

Courses were counted via course catalog, online student registration portal and course requirements for majors.

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

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

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

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

	Yes or No
Internships	No

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

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

No

Does the institution designate sustainability courses on student transcripts?:

No

Learning Outcomes

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

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

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

Submission Note:

<http://www.vanderbilt.edu/sustainvu/resources/academics-curriculum/>

1. AMER 115F-02: Culture and Thought
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125. HIST 148: The Darwinian Revolution
126. HIST 287b: History of New Orleans
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128. HOD 2690-01 : Environmental Geography and the City
129. HOD 2960: Senior Thesis
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131. LAW 699: Oil and Gas Law Short Course
132. LAW 732: Environmental Law
133. LAW 759: Energy Law
134. LAW 760: Ecosystems Management
135. LAW 763: International Environmental Law
136. LAW 770: Land Use Planning
137. LAW 777: Law and Business of Climate Change
138. LAW 784: Practicing Environmental Law
139. LAW 821: Environmental Annual Review
140. LAW 833: Law Practice 2050
141. LAW 960 Philosophy of International Law Seminar
142. LAW 962: Renewable Power Seminar
143. LAW 963: Sustainable Cities Seminar
144. LAW 964: Endangered Species Law
145. LWEC 430: Risk and Environmental Regulation I
146. LWEC 431: Risk and Environmental Regulation II
147. ME 210: Special Topics: Nuclear Power
148. ME 260: Energy Conversion I
149. ME 262: Environmental Control
150. ME 264: Internal Combustion Engines
151. ME 265: Direct Energy Conversion
152. ME 327: Energy Conversion Systems
153. ME 391: Special Topics: Energy Storage Technology
154. MGT 420: The Future of Energy Markets in a Low-Carbon Economy

155. MGT 421. Financial Analysis of ESG Data.
156. MGT 423: Corporate Strategies for Environmental, Social and Governance Issues
157. MGT 428: Social Enterprise and Entrepreneurship
158. PHIL 115F-05: Green Cities
159. PHIL 245: Humanity, Evolution, and God.
160. PHIL 273 Environmental Philosophy
161. PHIL 274: Ethics and Animals
162. PSCI 215: Change in Developing Countries
163. PSCI 253: Ethics and Public Policy
164. PSY 115F: Environment, Behavior, and Health
165. RLST 221: Ethics and Ecology
166. RLST 272: Religion, Ecology, and Power in Africa
167. SOC 102: Social Issues: Environment and Society
168. SOC 115F-19: Sociology of Local Sustainability
169. SOC 206: Sociology of Health and Environmental Science
170. SOC 207: Climate Change and Society
171. SOC 208: Environment and Development
172. SOC 221: Environmental Inequality and Justice
173. SOC 225: Women and Social Activism
174. SOC 252: Law and Social Movements
175. SOC 270: Human Ecology and Society
176. SPAN 115F-08: Ecocritical Perspectives in Latin American Literature
177. WGS 115F-04: Environmental Justice
178. WGS 268: Gender, Race, Justice, and the Environment
179. WGS 270: Ecofeminism: Theory, Politics, and Action

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

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

1,256

Total number of graduates from degree programs:

3,750

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

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

- American Studies
- Anthropology
- Art History
- Biological Sciences
- Chemistry
- Earth and Environmental Sciences

- Economics
- English
- Environmental and Sustainability Studies
- European Studies
- Divinity
- History
- Human and Organizational Development
- MBA – Owen Graduate School of Management
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Women's and Gender Studies
- Biomedical Engineering
- Chemical and Biomolecular Engineering
- Civil Engineering
- Electrical Engineering and Computer Sciences
- Engineering Sciences
- Environmental Engineering
- Mechanical Engineering
- Engineering Management
- Law School – Environmental Law

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

- o American Studies - The American Studies program is an interdisciplinary program that enables students to engage the diversity of American culture from a variety of intellectual disciplines and perspectives. Through course offerings, colloquia, and research opportunities, program students and faculty engage the states of the nation in a post-9/11 era, examining anew the formation of social, legal, cultural, and economic identities within the borders of the United States. Compelling matters of class, race, ethnicity, sexuality, environmentalism, technology, the arts, region, and religion take their proper and vital place in the curriculum of study.
- o Biological Sciences - The biological sciences encompass the study of living organisms and life processes at all levels: ecosystems, populations, individual organisms, tissues, cells, subcellular structures, and molecules. For undergraduates, the department offers three majors including the Ecology, Evolution, and Organismal Biology (EEOB) major. The EEOB major is designed for students with an interest in ecology, evolutionary biology, environmental biology, and conservation biology.
- o Chemistry - Environmental Chemistry Focus. Environmental chemistry concerns the chemical phenomena that occur in nature. Environmental chemistry spans atmospheric, aquatic, and soil chemistry with a reliance on analytical chemistry for methods of analysis. Environmental chemistry can be applied to the understanding of issues such as ground water pollution, wastewater treatment, ozone depletion, and greenhouse gas emissions.
- o The Earth and Environmental Sciences are aimed at interpreting Earth's dynamic history—its age and origin as recorded in rocks and the landscape—and at understanding how geological processes affect modern environmental and ecological systems. Students majoring in EES participate in field and laboratory work. Students use the major as preparation for graduate study, for careers in environmental studies and resource exploration (petroleum, minerals), or for related careers in such fields as land use planning, teaching, law, or engineering. Research programs in the department, which in many cases involve students, employ field, analytical, and experimental methods.

o Environmental and Sustainability Studies - Human beings and their societies necessarily interact with and alter Earth's natural environment. The environmental and sustainability studies minor allows the student to examine human interaction with the environment from the perspectives of the humanities and social sciences with some exposure to the environmental sciences and/or environmental engineering.

o Civil and Environmental Engineering - Civil engineers must be able to face complex problems of modern society involving the development of physical facilities that serve the public while protecting the environment and preserving social values. Challenges facing civil and environmental engineers concern housing, urban transportation, pollution control, water resources development, industrial development, maintaining and advancing our nation's aging infrastructure, and exploring space. The program also includes courses in economics, humanities, social sciences, resources management, and public policy. The curriculum includes upper-level analysis and design courses in structural, geotechnical, environmental, water resources, and transportation engineering. In addition, a major in chemical engineering with a minor in environmental engineering is available.

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

<http://www.vanderbilt.edu/catalogs>

Undergraduate Program

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution offers at least one:

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

And/or

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

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

Submission Note:

o Vanderbilt also allows students to design their own majors with the assistance of a faculty advisor, allowing them the flexibility to create a major that truly focuses on sustainability and the environment by utilizing many university department courses to do so. Many students have taken advantage of this, resulting in more departments offering sustainability related courses each semester. Recent student-designed majors include Environmental Policy and Environmental Psychology.

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

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

Yes

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

Civil and Environmental Engineering

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

Vanderbilt's Department of Civil and Environmental Engineering offers a broad-based education in civil and environmental engineering fundamentals, coupled with development of leadership, management, and communications skills to establish a foundation for lifelong learning and flexible career development. This goal requires going beyond technical competence in a balanced education to develop future leaders in the fields of consulting, industry, business, law, government, and research. Civil engineers must be able to face complex problems of modern society involving the development of physical facilities that serve the public while protecting the environment and

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

preserving social values. Challenges facing civil and environmental engineers concern housing, urban transportation, pollution control, water resources development, industrial development, maintaining and advancing our nation's aging infrastructure, and exploring space. Addressing these challenges with today's limited resources requires innovative and original ideas from highly-skilled engineers. Undergraduates majoring in civil engineering receive a strong background in mathematics, science, engineering science, and engineering design. The program also includes courses in economics, humanities, social sciences, resources management, and public policy.

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

<http://engineering.vanderbilt.edu/cee/index.php>

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

Earth and Environmental Sciences

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

The Department of Earth and Environmental Sciences at Vanderbilt offers an undergraduate major leading to the B.A. degree. Students may complete additional course work to attain an Honors degree. Students in EES participate in field and laboratory work as an important part of their studies. The relatively small size of the faculty and student body allows many opportunities for faculty-student interactions. Most students undertake individualized research projects in conjunction with ongoing faculty projects. Students use the major as preparation for graduate studies in the Earth and environmental sciences or related fields, for careers in environmental studies and management, geological assessment and resource exploration (e.g. petroleum, minerals), or in fields such as land-use planning, teaching, law and engineering.

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

<http://www.vanderbilt.edu/ees/undergraduate.php>

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

Independent major in environmental and sustainability studies

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

Human beings and their societies necessarily interact with and alter Earth's natural environment. The environmental and sustainability studies independent major allows the student to examine human interaction with the environment from the perspectives of the humanities and social sciences with some exposure to the environmental sciences and/or environmental engineering.

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

<https://my.vanderbilt.edu/environmental/minor-requirements>

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

Biological Sciences - Ecology, Evolution, and Organismal Biology Major - The Ecology, Evolution, and Organismal Biology (EEOB) major is designed for students with an interest in ecology, evolutionary biology, environmental biology, and conservation biology.

<http://as.vanderbilt.edu/biosci/>

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

Yes

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

Minor in environmental and sustainability studies

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

Human beings and their societies necessarily interact with and alter Earth's natural environment. The environmental and sustainability studies minor allows the student to examine human interaction with the environment from the perspectives of the humanities and social sciences with some exposure to the environmental sciences and/or environmental engineering.

<https://my.vanderbilt.edu/environmental/minor-requirements/>

The minor in Environmental and Sustainability Studies can be combined with almost any undergraduate major at Vanderbilt and can be focused in the following areas:

- Law and policy.
- Business and management.
- Health.
- Advocacy and education.
-

<https://my.vanderbilt.edu/environmental/career-pathways/>

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

<https://my.vanderbilt.edu/environmental/minor-requirements>

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

Environmental Engineering minor

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

A minor in environmental engineering is available to all non-civil engineering students.

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

<http://engineering.vanderbilt.edu/cee/Undergraduate/MinorsCEE.php>

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

Campus Sustainability Data Collector | AASHE

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

Environmental Chemistry Focus. Environmental chemistry concerns the chemical phenomena that occur in nature. Environmental chemistry spans atmospheric, aquatic, and soil chemistry with a reliance on analytical chemistry for methods of analysis. Environmental chemistry can be applied to the understanding of issues such as ground water pollution, wastewater treatment, ozone depletion, and greenhouse gas emissions.

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

<http://www.vanderbilt.edu/chemistry/majors.php>

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

o Minor in Environmental Science - Environmental science is the study of how the earth's natural environmental processes work, how they have been or can be modified by humans and society, and how such modifications impact on the biosphere, at the levels of individuals through ecosystems. An environmental science minor provides students the opportunity to expand their education to include a coherent program in the scientific aspects of how we interact with and modify the earth's environment.

http://www.vanderbilt.edu/ees/uploadfiles/UGAD_2010_major_minor_honors.pdf

o Minor in Energy and Environmental Systems - The minor in energy and environmental systems is designed to provide students with a working knowledge of the fundamentals of energy systems and their impact on the environment. The future health and well-being of humanity hinge in large part on smart production and use of energy, water, and related resources, as these are central determinants of climate change, habitable space, and human and ecological health. This program examines the relationships among individual, institutional, and societal choices for energy production and use, and the impacts and benefits of these choices on the environment and health through climate, water quality, and natural resources.

<http://engineering.vanderbilt.edu/cee/Undergraduate/MinorsCEE.php>

Graduate Program

Criteria

Institution offers at least one:

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

And/or

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

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

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

Immersive Experience

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

And/or

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

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

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

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

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

Yes

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

Various study-abroad programs, offered during the academic year, “Maymester” and summer, have programs that focus on sustainability, environmental science, and environmental engineering. For example, the DIS program in Copenhagen, Denmark during the semester allows students to embark upon sustainability studies by taking courses such as Corporate Social Responsibility and Sustainable Business Practice, Renewable Energy Systems and Sustainable Food Systems. The VISAGE program in Northern Ireland also allows students to focus on measuring sustainability, society’s perception of sustainable building, VU’s initiatives in sustainable building design, and innovations in materials and design and students also have the opportunity to take 1 to 3 credit hours of independent research in the area of their choice, as it relates to sustainable buildings.

<https://webapp.mis.vanderbilt.edu/studioabroad/index.cfm?FuseAction=Programs.ListAll>

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

<https://webapp.mis.vanderbilt.edu/studioabroad/index.cfm?FuseAction=Programs.ListAll>

Sustainability Literacy Assessment

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

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

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

This credit includes graduate as well as undergraduate students.

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

Incentives for Developing Courses

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

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

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

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

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

Campus as a Living Laboratory

Criteria

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

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

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

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

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

Research

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

Credit
Academic Research
Support for Research
Access to Research

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

Part 2

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

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

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

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

Submission Note:

The website URL where information about sustainability research is available:

<http://engineering.vanderbilt.edu/cee/Research/EnergyandEnvironment.php>

<http://www.vanderbilt.edu/viee/index.php>

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

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

61

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

3,642

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

19

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

50

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

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

1. Mark Abkowitz, Professor of Civil and Environmental Engineering
2. Brooke Ackerly, Department of Political Science, Vanderbilt University
3. Amrutur Anilkumar, Professor of the Practice of Mechanical Engineering
4. John Ayers, Professor of Earth and Environmental Sciences
5. Joe Bandy, Center for Teaching, Sociology, Peabody College, Vanderbilt University
6. Jack Barkenbus, Associate Director CCRN, Vanderbilt Institute for Energy and Environment
7. Alan Bowers, Associate Professor of Civil and Environmental Engineering
8. Lisa Bressman, Environmental Law Program, Vanderbilt Law School
9. Janey Camp, Research Assistant Professor of Civil and Environmental Engineering
10. James Clarke, Civil and Environmental Engineering, Vanderbilt University
11. Mark A. Cohen, Owen Graduate School of Management, Vanderbilt University
12. Beth Conklin, Department of Anthropology, Vanderbilt University
13. James Dobbins, Director, Vanderbilt Center for Transportation Research, Vanderbilt University
14. Ford Ebner, Department of Psychology, Vanderbilt University
15. Jennifer Escalas, Owen Graduate School of Management, Vanderbilt University
16. Florence Faucher-King, Department of Political Science, Vanderbilt University
17. Douglas Fisher, Department of Electrical Engineering and Computer Science, Vanderbilt University
18. James Fraser, Associate Professor of Human and Organizational Development
19. David Furbish, Professor Earth and Environmental Sciences
20. Andrew C. Garrabrants, Associate Research Professor of Civil & Environmental Engineering
21. Jonathan Gilligan, Department of Earth & Environmental Sciences, Vanderbilt University
22. Teresa Goddu, Director of American Studies, Vanderbilt University
23. Steven Goodbred, Professor of Earth and Environmental Sciences
24. Marc Hetherington, Department of Political Science, Vanderbilt University
25. David Hess, Professor of Sociology, Vanderbilt University
26. George Hornberger, Chair of Earth and Environmental Sciences, Department of Civil and Environmental Engineering, Vanderbilt University
27. G. Kane Jennings, Professor of Chemical and Biomolecular Engineering, Vanderbilt University
28. Carl Johnson, Department of Biological Sciences

29. Malu Jorge, Department of Earth & Environmental Sciences
30. Leslie D. Kirby, Director of Undergraduate Studies & Senior Lecturer in Psychology, Vanderbilt University
31. David Kosson, Professor & Chair of Civil and Environmental Engineering & Co-Director of CRESP
32. Dave Krantz, Visiting Scholar in VIEE and Climate Change Research Network
33. Irek W. Kusmierczyk, PhD, Department of Political Science, Vanderbilt University
34. Euguene LeBoeuf, Professor of Civil and Environmental Engineering
35. Doug LeVan, J. Lawrence Wilson Professor of Engineering
36. Calvin Miller, Department of Earth & Environmental Sciences
37. Molly Miller, Department of Earth & Environmental Sciences
38. Dan Morgan, Department of Earth & Environmental Sciences
39. Judson Newbern, Professor of the Practice of Civil & Environmental Engineering
40. Ann Olsen, PhD Candidate, Environmental Management Studies, Vanderbilt University
41. Chandra Y. Osborn, Center for Health Services Research, Vanderbilt University
42. Jessica L Oster, Assistant Professor of Earth and Environmental Sciences
43. David Owens, Clinical Professor of Management
44. Frank Parker, Professor of Environmental and Water Resources Engineering
45. Cary Pint, Assistant Professor of Mechanical Engineering
46. Robert W. Pitz, Professor of Mechanical Engineering
47. Charles Powers, Professor of Environmental Engineering & Co-Director of CRESP
48. Sandra Rosenthal, Jack and Pamela Egan Chair of Chemistry, Vanderbilt University
49. Jim Rossi, Professor of Law, Energy, Environment and Land Use Program, Vanderbilt Law School
50. J.B. Ruhl, Energy, Environment and Land Use Program, Vanderbilt Law School
51. Sonalini Sapra, PhD Candidate, Department of Political Science, Vanderbilt University
52. David Schlundt, Department of Psychology, Vanderbilt University
53. James Schorr, Clinical Professor of Management
54. Lori Troxel, Associate Professor of the Practice of Civil and Environmental Engineering
55. Michael Vandenbergh, Environmental Law Program, Vanderbilt Law School
56. W. Kip Viscusi, Law & Economics Program, Vanderbilt Law School
57. Courte Voorhees, PhD Candidate, Department of Human and Organizational Development, Vanderbilt University
58. Gary Walker, Facilities Access Coordinator, Vanderbilt School of Engineering
59. Kenneth Wallston, Vanderbilt University School of Nursing
60. David Wood, Department of Philosophy
61. James Young, Chemical and Biomolecular Engineering

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

■ Members of Vanderbilt’s Climate Change Research Network - The Climate Change Research Network at Vanderbilt includes a team of faculty and graduate students who are conducting theoretical and applied research on one of the most important and most widely overlooked sources of greenhouse gases: individual and household behavior. The Climate Change Research Network is affiliated with the Vanderbilt Institute for Energy and Environment.

<http://law.vanderbilt.edu/academics/academic-programs/environmental-law/climate-change-network/>

[index.php](#)

(VIEE) engages in research and education that directly link the social and behavioral sciences, physical sciences, engineering, law and policy, and that bear on energy and environmental decision making by individuals and by public and private institutions. Specifically, VIEE research elucidates the relationships among individual, institutional, and societal choices for energy production and use, and the impacts and benefits of these choices on the environment and health through links with climate, water quality, economics, social psychology, and natural resources.

<http://www.vanderbilt.edu/viee/>

■ Other faculty and staff associated with sustainability related research projects.

o

<http://www.vanderbilt.edu/lc/people/>

o

<http://engineering.vanderbilt.edu/cee/Research/EnergyandEnvironment.php>

o

<http://engineering.vanderbilt.edu/cee/faculty-staff/index.php>

o

<http://www.vanderbilt.edu/ees/index.php>

o

http://news.vanderbilt.edu/2013/10/device-electricity-silicon-chips/?utm_source=vuhompage&utm_medium=newsbox&utm_campaign=silicon-chips

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

1. Members of Vanderbilt faculty helped research and develop the first Sustainable Tennessee report entitled SUSTAINING TENNESSEE IN THE FACE OF CLIMATE CHANGE: GRAND CHALLENGES AND GREAT OPPORTUNITIES, available at:

<http://sustainabletennessee.org/download-report/>

. Contributing authors from Vanderbilt include Mark Abkowitz, Janey Camp, Jonathan Gilligan, and Alfredo Vergara.

2. A Vanderbilt engineering team, comprised of five engineering seniors with two faculty mentors, Dr. Kane Jennings, Professor of Chemical and Biomolecular Engineering and Dr. Amrutur Anilkumar, Professor of the Practice of Mechanical Engineering, designed a biohybrid solar panel that substitutes a protein from spinach for expensive silicon wafers that are energy intensive to produce, and is capable of producing electricity. The team won a Phase II \$90,000 grant at the 8th Annual National Sustainable Design Expo held at the National Mall in Washington, D.C. The Expo – co-sponsored by the U.S. Environmental Protection Agency – featured 44 university and college teams competing for Phase II funding under the EPA’s People, Prosperity and the Planet (P3) student design competition. A miniature bio-cell can produce minute electricity from Photosystem I (PSI), the protein in plant chloroplasts that converts light to electrochemical energy. The team extracted PSI from spinach and used it as the working medium in the bio-photovoltaic cells. The two scaled-up panels consist of 24 cells connected in series with each cell measuring 75 x 38 mm.

<http://www.vanderbilt.edu/sustainvu/2012/09/spinach-power-gets-a-major-boost/>

3. When white-light quantum dots were discovered accidentally in a Vanderbilt chemistry lab, their efficiency was too low for commercial applications and several experts predicted that it would be impossible to raise it to practical levels. In 2012, however, Vanderbilt researchers proved those predictions wrong by reporting that they successfully boosted the fluorescent efficiency of these nanocrystals from an original level of three percent to as high as 45 percent. Dr. Sandra Rosenthal, Jack and Pamela Egan Chair of Chemistry, directed the research which is described online in the Journal of the American Chemical Society. The general measure for the overall efficiency of lighting devices is called luminous efficiency and it measures the amount of visible light (lumens) a device produces per watt. An incandescent light bulb produces about 15 lumens/watt, while a fluorescent tube puts out about 100 lumens/watt. White light LEDs currently on the market range from 28 to 93 lumens/watt.

<http://www.vanderbilt.edu/sustainvu/2012/05/vanderbilt-research-brightens-the-future-of-lightin>

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4. In 2013, Cary Pint, Assistant Professor of Mechanical Engineering, created the first supercapacitor that is made out of silicon so it can be built into a silicon chip along with the microelectronic circuitry that it powers. In fact, it should be possible to construct these power cells out of the excess silicon that exists in the current generation of solar cells, sensors, mobile phones and a variety of other electromechanical devices, providing a considerable cost savings. Instead of storing energy in chemical reactions the way batteries do, “supercaps” store electricity by assembling ions on the surface of a porous material. As a result, they tend to charge and discharge in minutes, instead of hours, and operate for a few million cycles, instead of a few thousand cycles like batteries.

<http://www.vanderbilt.edu/sustainvu/2013/11/new-device-stores-electricity-on-silicon-chips/>

5. Rizia Bardhan, one of Vanderbilt’s newest assistant professors and one of Forbes’ “30 Under 30 in Science & Innovation” spoke in 2013 about her work in nanotechnology and its applications within the fields of medicine and energy. The plasmonic nanostructures that Bardhan is researching have many applications, including use with solar cells. Using nanotechnology, the life and efficiency of solar cells can be increased.

<http://www.vanderbilt.edu/sustainvu/2013/02/vu-professor-discusses-nanotechnology-and-its-appl>

[ication-within-the-fields-of-medicine-energy/](#)

6. In 2013, Steven L. Krahn, professor of the practice of nuclear environmental engineering, was accepted by eminence into the American Academy of Environmental Engineers and Scientists as a Board Certified Environmental Engineering Member in the specialty practice of hazardous waste management. Krahn performs research in the technologies associated with the materials processing and risk assessment associated with the nuclear fuel cycle, and he actively participates in the Consortium for Risk Evaluation and Stakeholder Participation (CRESP), an engineering research center at Vanderbilt that works to advance cost-effective cleanup of the nation's nuclear weapons production waste sites and test facilities.

<http://www.vanderbilt.edu/sustainvu/2013/07/krahn-receives-u-s-academy%E2%80%99s-environmental-engineering-certification/>

7. Eugene LeBoeuf, associate professor of civil and environmental engineering at Vanderbilt, was the third Vanderbilt environmental engineering faculty member in two years to be accepted into the American Academy of Environmental Engineers and Scientists as a board certified environmental engineering member. LeBoeuf's research interests focus on developing improved methods to manage and increase sources of hydro-based renewable energy, and sustainable-energy water systems, including optimization of multi-reservoir hydropower systems. His current research projects are supported by the National Science Foundation and the U.S. Department of Energy.

<http://www.vanderbilt.edu/sustainvu/2013/12/third-environmental-engineering-professor-is-certified-by-u-s-academy/>

8. Research published in 2013 by four Vanderbilt University researchers found that if Americans use a comfortable water temperature when washing their hands, it could prevent the annual greenhouse gas emissions totaling the equivalent of the United States' lead industry or the entire output of a small nation such as Barbados. The research group was led by Amanda R. Carrico, research assistant professor at the Vanderbilt Institute for Energy and Environment. Assisting with the study were Micajah Spoden, research analyst at Vanderbilt; Michael Vandenbergh, director of the Climate Change Research Network at Vanderbilt and David Daniels Allen Distinguished Chair of Law; and Kenneth A. Wallston, professor of psychology at the Vanderbilt School of Nursing.

<http://www.vanderbilt.edu/sustainvu/2013/12/use-water-at-%E2%80%98comfortable%E2%80%99-temperature-to-wash-hands-and-fight-global-warming/>

9. In 2014, Michael Vandenbergh, David Daniels Allen Distinguished Chair of Law and director of Vanderbilt's Climate Change Research Network, was invited to speak on "Buying Time: The Private Governance Response to Climate Change" at TEDxNashville. Professor Vandenbergh's academic research explores the relationship between formal legal regulation and informal social regulation of individual and corporate behavior, the influence of social norms on corporate behavior, and the ways in which private contracting can enhance or undermine public governance.

<https://www.youtube.com/watch?v=2bXNcEQ6QX0&feature=youtu.be>

10. In 2014, a team of scientists from Vanderbilt and Stanford universities created the first comprehensive map of the topsy-turvy climate of the current period and are using it to test and improve the global climate models that have been developed to predict how precipitation patterns will change in the future. The resulting paper was published by the journal Nature Geoscience. One team member, Jessica Oster, is an assistant professor of Earth and Environmental Sciences at Vanderbilt University.

<http://news.vanderbilt.edu/2015/02/time-when-climate-was-topsy-turvy-in-western-u-s-aids-climate-prediction-efforts/>

11. In 2014, undergraduate Michael Panu progressed to the final round of the Undergraduate Students in Technical Research (USTR) Competition that is held by the National Society of Black Engineers (NSBE). Panu was a senior in Chemical and Biomedical Engineering with an interest in solving practical engineering problems relating to environmental issues, particularly those related to the oil and gas industries, as well as sustainable energy advances.

<http://www.vanderbilt.edu/sustainvu/2014/02/che-senior-enters-final-round-of-national-undergraduate-research-competition/>

12. A team of Vanderbilt students partnered with Habitat for Humanity of Greater Nashville was selected in 2014 to compete in the 2015 U.S. Department of Energy Solar Decathlon. The team will build Harmony House, a 1,000 square-foot, energy efficient, fully solar-powered home that is likely to be used as a test site for Habitat for Humanity after the contest ends. Solar Decathlon chooses the best proposals from teams of university students and gives the teams two years to complete the houses. After Harmony House is built on Vanderbilt's campus, it will be disassembled and shipped to California to be rebuilt for the competition.

<http://www.vanderbilt.edu/sustainvu/2014/09/vanderbilt-engineering-students-prepare-for-2015-solar-decathlon/>

The website URL where information about sustainability research is available:

<http://engineering.vanderbilt.edu/cee/Research/EnergyandEnvironment.php>

Support for Research

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

- An ongoing program to encourage students in multiple disciplines or academic programs to conduct research in sustainability. The program provides students with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and mentorships. The program specifically aims to increase student sustainability research.
 - An ongoing program to encourage faculty from multiple disciplines or academic programs to conduct research in sustainability topics. The program provides faculty with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and faculty development workshops. The program specifically aims to increase faculty sustainability research.
 - Formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions.
 - Ongoing library support for sustainability research and learning in the form of research guides, materials selection policies and practices, curriculum development efforts, sustainability literacy promotion, and e-learning objects focused on sustainability.
-

Submission Note:

■ <http://engineering.vanderbilt.edu/cee/GraduateStudy/EnvironmentalEngineering/env-mgmt-policy/index.php>

■ <http://www.vanderbilt.edu/lc/>

■ <http://www.vanderbilt.edu/sustainvu/resources/academics-curriculum>

■ <http://www.vanderbilt.edu/americanstudies/sustainability/index.php>

■ <http://cumberland.vanderbilt.edu/>

■ <http://law.vanderbilt.edu/academics/academic-programs/environmental-law/climate-change-network/index.aspx>

■ <http://www.vanderbilt.edu/vice/>

■ <http://engineering.vanderbilt.edu/cee/GraduateStudy/EnvironmentalEngineering/env-mgmt-policy/index.php>

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

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

Yes

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

Vanderbilt University provides myriad opportunities for students to partake in sustainability and environmentally-focused coursework, research and educational opportunities. In Fall 2011, Vanderbilt's program in American Studies initiated the Sustainability Project (

<http://www.vanderbilt.edu/americanstudies/sustainability/index.php>

), which aims to encourage campus-wide dialogue that will promote and further the university's sustainability efforts. Due to the success of the program, the Sustainability Project continued into the 2012-13 academic year with a focus on creating a strategic plan for the new minor in Environmental and Sustainability Studies. In 2014, a strategic plan to offer a new major in Sustainability Studies was developed by David Hess in Vanderbilt's sociology department.

Vanderbilt's Center for Teaching sponsored the Cumberland Project (

<http://cumberland.vanderbilt.edu/>

) in May 2012, a two-day workshop intended to foster an interdisciplinary teaching and learning community around sustainability themes at Vanderbilt.

■ In addition to these two special programs, environmental engineering, environmental science, and environmental studies majors and minors and environmental policy concentrations are available to Vanderbilt students. Departments and programs offering courses pertaining to sustainability and the environment include:

- Anthropology
- Art History
- Biological Sciences
- Chemistry
- Divinity
- Earth and Environmental Sciences
- European Studies
- Economics
- English
- Environmental and Sustainability Studies

- MBA- Owen Graduate School of Management
- History
- Human and Organizational Development Philosophy
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Spanish
- Women's and Gender Studies
- Biomedical Engineering
- Chemical and Biomolecular Engineering
- Civil Engineering
- Electrical and Computer Engineering
- Engineering Sciences
- Environmental Engineering
- Mechanical Engineering
- Engineering Management
- Law School – Environmental Law

Ample opportunities for student sustainability research are available at Vanderbilt through several research centers in addition to the specific departments and programs previously mentioned, such as the Vanderbilt Institute for Energy and Environment, the Vanderbilt Center for Environmental Management Studies, the VU/MWS Renewable Energy Showcase (

<http://www.vanderbilt.edu/lc/>

) and the Climate Change Research Network. SEMO also assists students who are interested in or want to initiate sustainability research projects which use the campus as a laboratory. Examples of past projects include: development of the ThinkOne energy conservation campaign in academic and administrative buildings, development of the SustainVU Laboratory Greening Guide, and use of feedback intervention as a means of inducing student behavior change in The Commons residential campus for first-year students in collaboration with the VUMC School for Science and Math and the Vanderbilt Green Fund. In 2014, two full-time summer research intern positions were added in the Sustainability and Environmental Management Office to provide additional opportunities for undergraduates to develop research projects using the campus as a laboratory. One position is focused on recycling while the other looks at energy conservation. The 2014 recycling intern studied the most effective method of delivering recycling information to our undergraduate students and determined that an online app would work best. He then worked with the Library system to start to develop the database needed and program the app structure. Completion of this project is expected by graduation 2015.

More information about Vanderbilt's sustainability research programs can be found at

<http://www.vanderbilt.edu/sustainvu/resources/academics-curriculum/>

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

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

credit?:

Yes

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

■ The American Studies Sustainability Project aims to encourage campus-wide dialogue that will promote and further the university's sustainability efforts. Due to the success of the program in 2011-2012, the Sustainability Project continued into the 2012-13 academic year with a focus on creating a strategic plan for the new minor in Environmental and Sustainability Studies. A strategic plan to offer a new major in Sustainability Studies was developed in 2014. The Dean of Arts and Sciences awarded discretionary funds of \$50,000 for 2011/2012 and 2012/2013 academic years to develop this research and outreach program.

■ The Cumberland Project - One way that individual scholars from across the disciplines are addressing these issues is through their teaching, by focusing on environmental problems as central components of their courses and by embracing interdisciplinary pedagogies that encourage critical thinking, problem solving, and leadership development. Over the last decade, many universities have sought to encourage these innovations in all disciplines by providing educators intensive workshop opportunities to (re)design courses with significant environmental components. It is toward this goal that Vanderbilt's Program in American Studies and the Vanderbilt Center for Teaching facilitate the Cumberland Project. The Cumberland Project includes a two-day workshop in which Vanderbilt faculty engage in discussions and course designing workshops with Vanderbilt leaders in sustainability education. The workshop joins intellectual stimulation with an opportunity to meet with faculty from around the university and to learn about an array of sustainability resources available on our campus and within our community. The project is intended to build on and strengthen a continuing, vibrant teaching and learning community around sustainability themes. Therefore, particular emphasis is placed on environmental education that is highly interdisciplinary in scope and inclusive of a wide array of environmental studies across the natural sciences, social sciences, and humanities. Participants receive \$500 in research funds for their participation in the two-day workshop.

■ Climate Change Research Network - Participants in the Climate Change Research Network are examining questions such as:

- o What are the aggregate emissions from individuals and households, and how do those emissions compare to the emissions from industry and other source categories?
- o Which individual behaviors release the greatest amounts of greenhouse gas emissions?
- o What are the greenhouse gas emissions from motor vehicle idling and how can they be reduced?
- o How do personal carbon calculators vary in their outputs and conversion factors?
- o Which social psychological theories have the greatest explanatory power for greenhouse gas-emitting behaviors?
- o How do people perceive and value climate change risks, particularly when they are remote?
- o How should these climate change risks be valued for policy benefit assessments?
- o What strategies are chosen by those policy advocates and to what extent are these strategies constrained by the political system in which they evolve? What changes in laws and policies can generate the most cost-effective reductions in greenhouse gas emissions from individual behavior?
- o What changes in the administration and staffing of government agencies will be required if climate change laws and policies are adopted?

■ The Vanderbilt Institute for Energy and the Environment - The Vanderbilt Institute for Energy and the Environment (VIEE) engages in research and education that directly link the social and behavioral sciences, physical sciences, engineering, law and policy, and that bear on energy and environmental decision making by individuals and by public and private institutions. Specifically, VIEE research elucidates the relationships among individual, institutional, and societal choices for energy production and use, and the impacts and benefits of these choices on the environment and health through links with climate, water quality, economics, social psychology, and natural resources.

■ VU/MWS Renewable Energy Showcase - In collaboration with Nashville Metro Water Services (MWS), Vanderbilt University School of Engineering (VUSE) set up a wind-solar renewable energy site at the Love Hill in Nashville. The main purpose of this project is to examine the feasibility of alternative energy production through solar and wind facilities, and the expectation is that about of 30kWh of energy will be generated on a daily basis; 30kWh is the average daily consumption of electrical energy per household across the US, according to the US Energy Information Administration.

■ In 2014, a team of scientists from Vanderbilt and Stanford universities created the first comprehensive map of the topsy-turvy climate

of the current period and are using it to test and improve the global climate models that been developed to predict how precipitation patterns will change in the future. The resulting paper was published by the journal Nature Geoscience. One team member, Jessica Oster, is an assistant professor of Earth and Environmental Sciences at Vanderbilt University.

<http://news.vanderbilt.edu/2015/02/time-when-climate-was-topsy-turvy-in-western-u-s-aids-climate-prediction-efforts/>

■ In 2014, undergraduate Michael Panu progressed to the final round of the Undergraduate Students in Technical Research (USTR) Competition that is held by the National Society of Black Engineers (NSBE). Panu was a senior in Chemical and Biomedical Engineering with an interest in solving practical engineering problems relating to environmental issues, particularly those related to the oil and gas industries, as well as sustainable energy advances. Panu collaborates with Associate Professor Bridget Rogers, whose research group in chemical engineering creates materials and structures using thin film processing techniques and combustion synthesis.

<http://www.vanderbilt.edu/sustainvu/2014/02/che-senior-enters-final-round-of-national-undergraduate-research-competition/>

■ A team of Vanderbilt students partnered with Habitat for Humanity of Greater Nashville was selected in 2014 to compete in the 2015 U.S. Department of Energy Solar Decathlon. The team will build Harmony House, a 1,000 square-foot, energy efficient, fully solar-powered home that is likely to be used as a test site for Habitat for Humanity after the contest ends. Solar Decathlon chooses the best proposals from teams of university students and gives the teams two years to complete the houses. After Harmony House is built on Vanderbilt's campus, it will be disassembled and shipped to California to be rebuilt for the competition. The team is led by Vanderbilt University engineering professor Ralph Bruce.

<http://www.vanderbilt.edu/sustainvu/2014/09/vanderbilt-engineering-students-prepare-for-2015-solar-decathlon/>

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

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

No

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

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

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

Yes

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

Vanderbilt's extensive library system offers a number of different support mechanisms for sustainability research and learning. For example, the Walker Management Library maintains a robust research guide on Green and Sustainable Business available at

<http://researchguides.library.vanderbilt.edu/greenbusiness>

which pulls together in one location dozens of sustainability-related databases to support sustainability research in the business and management realms. The Stevenson Science and Engineering Library offers live feeds of articles and research related to sustainability divided by engineering discipline on their website at

<http://researchguides.library.vanderbilt.edu/content.php?pid=76468&sid=566411>

. One recent example of a highlighted research article available on the live RSS feed was from Science Daily discussing the screening of wastewater biosolids for antimicrobial products such as Triclosan. These are just two examples that highlight how the Vanderbilt Library system is supporting sustainability research and learning at Vanderbilt.

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

Access to Research

Criteria

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

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

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

Engagement

Campus Engagement

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

In addition, this subcategory recognizes institutions that support faculty and staff engagement, training, and development programs in sustainability. Faculty and staff members' daily decisions impact an institution's sustainability performance. Equipping faculty and staff with the tools, knowledge, and motivation to adopt behavior changes that promote sustainability is an essential activity of a sustainable campus.

Credit
Student Educators Program
Student Orientation
Student Life
Outreach Materials and Publications
Outreach Campaign
Employee Educators Program
Employee Orientation
Staff Professional Development

Student Educators Program

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

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

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

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

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

Yes

Number of degree-seeking students enrolled at the institution:

12,725

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

Eco-Dores Peer Residential Education Program

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

6,851

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

The Vanderbilt University Eco-Dores program, launched in Fall 2009, is designed to encourage environmental education and to help students recognize the systemic and interdisciplinary nature of ecology and environmental sustainability. Eco-Dores are residents in the housing system who act as “peer educators” and mentor other students to live in a more environmentally sustainable way. Each Eco-Dore is given guidance and support during collaborative educational sessions throughout the year in which they are introduced to a topic related to that month’s theme and brainstorm actions that they could implement in their own residence hall. The goal is that residents of each hall will find their own way to respond to the theme and their own best solution.

Monthly themes and outreach topics include energy conservation; water conservation; consumption; reducing, reusing, recycling; carbon footprint and climate change; sustainable food and dining; transportation; and green building.

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

Students fill out an online application early in the fall semester. The application is made up of a series of open-ended questions relating to the students’ interest and background in sustainability. Applicants are chosen based on their answers as well as the residence hall they represent. The goal each year is to choose one representative from each residence hall, with representation across classes. Occasionally, in the case of extremely good applications or larger residence halls, more than one applicant will be chosen for a single residence hall.

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

Each month the students attend a two hour training session led by the Sustainability and Environmental Management Office. The students choose the topic to be discussed at meetings and SEMO staff or a guest speaker will present during the first half of the meeting. The second half of the meeting is devoted to brainstorming and collaborating regarding peer education ideas for the following month. The students receive, on average, 16 hours of formal training per academic year.

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

The Eco-Dores are managed by the Sustainability and Environmental Management Office (SEMO) and funded by the Dean of Students Office. Funding is provided for meetings and activities throughout the year.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21

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

<http://www.vanderbilt.edu/sustainvu/what-you-can-do/students/eco-dores>

Student Orientation

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

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

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

100

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

All new students receive educational materials covering sustainability prior to arrival on campus. Additionally, the Sustainability and Environmental Management Office participates in a resources and information fair, which is attended by all first-year students during orientation. All first-year students must participate in a semester-long environmental seminar series, and educational information on sustainability is left in each first-year students' residence hall room.

At the beginning of each school year, information sessions are held with all Resident Advisors, who then disseminate information to their constituent residents. All student desk workers in The Commons Center and Sarratt Student Center also receive a brief lesson in sustainability initiatives on campus.

A student organizations' fair is held each fall to introduce new and returning students to service and organizational opportunities on campus, including those focused on the environment and sustainability. Incoming freshmen also participate in Commodores in the Community, a full day of service to organizations at Vanderbilt and in the Nashville community. Past projects have assisted the

Vanderbilt Biodiesel Initiative, the Sustainability and Environmental Management Office, and local community gardens. Additionally, the EcoDores program is a peer to peer sustainability educational program that organizes activities and events to get students in their residence halls actively engaged.

First-year students also participate in a program called “Vanderbilt Visions”, which contains presentations with a sustainability theme. Vanderbilt Visions is a key component of an educational program in The Ingram Commons that encourages first-year undergraduates to be empowered and responsible members of the Vanderbilt University community.

“Visions” is a one-semester, university core program that begins during CommonVU week and meets weekly until Thanksgiving break. All first-year students are assigned to one of 92 Visions groups, which connect students from all ten Houses of The Commons and all four undergraduate colleges. Teams of upperclass peer mentors and faculty members (Student and Faculty VUceptors) mentor these small groups as they explore the transitions all experience moving from high school to university life. A syllabus organizes hour-long meetings, but provides groups significant autonomy to chart their own course. SEMO has provided sustainability education modules that are used by the Vuceptors during their Visions courses.

Efforts to reduce waste generated during first-year student orientation and move-in are made wherever possible. Rather than purchasing bottled water, students, families, and friends are encouraged to bring their own reusable water bottles that can be filled up at water cooler stations throughout The Ingram Commons during move-in. Plastic, aluminum, cardboard, paper, and molded Styrofoam recycling have also been incorporated into first-year move-in operations and events.

The Ingram Commons Cup - Just as Hogwarts has its House Cup, The Ingram Commons has the Commons Cup with ten individual first year Houses competing against each other in academics, intramural sports, House involvement, community involvement and sustainability. The Commons Cup is awarded at the Commons Carnival on the last day of classes. Students in first-year houses compete against each other to conserve as much energy as possible in their own House each year. Each month, the ten residence Houses’ electricity usage data is sent to The School for Science and Math, a joint venture between Vanderbilt University Medical Center and Metropolitan Nashville Public Schools (MNPS), which offers high school students a four-year, interdisciplinary, research-centered learning experience. The School for Science and Math calculates the houses with the most energy conserved as compared to the same house the previous year. Points are awarded on a sliding scale, and the points are added to each House’s running total to determine placement in The Commons Cup.

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

<http://commonplace.vanderbilt.edu/?s=0&v=11>

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

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

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

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

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

- Students Promoting Environmental Awareness and Responsibility (SPEAR): SPEAR's mission is to increase environmental awareness and promote more environmentally sustainable habits and infrastructure within the Vanderbilt and Nashville community. Various projects sponsored by this organization include: cardboard crew, compost discovery area, house energy competitions, Climate Change Solutions Week, pollinator garden and Rites of Spring recycling.
- Think Gold, Act Green Coalition: The "Think Gold, Act Green" Coalition, managed by Vanderbilt Student Government's Environmental Affairs Committee, serves as a liaison to the various environmental groups on campus and works with these organizations to develop, coordinate, and promote recycling and energy/resource conservation on campus. It also strives to develop unique, cost-effective initiatives for lessening Vanderbilt's use of resources, invigorates the student body to be more environmentally friendly, and encourages the university to take a leadership role in the global battle against climate change.
- Vanderbilt Sierra Club: Vanderbilt Sierra Club "practices, promotes, and educates on the responsible use of the earth's ecosystems and resources, protection of wild habitats, and restoration of natural and human environments."
- Owen Graduate School of Management NetImpact: Owen Net Impact is a member of the larger Net Impact community with over 150 student and professional chapters worldwide. Net Impact aims to positively contribute to a community of new leaders in fields such as corporate social responsibility, social entrepreneurship, nonprofit management, international development, and environmental sustainability who will use business to improve the world. Net Impact has in the past hosted events such as a Green Career Symposium, "Green Week" and the Net Impact National Conference. This group has also partnered with the Sustainability and Environmental Management Office to devise business plans and programming for various environmental projects and efforts on campus.
- Vanderbilt Alternative Energy Club: The Alternative Energy Club manages Vanderbilt's student-run biodiesel production system, which converts waste vegetable oil into biodiesel fuel that is used by some of the university's diesel-fueled engines and the grounds department's landscaping equipment. One of the byproducts of this process, glycerin, is used by the group to make EcoSuds soap, which is sold at several locations on campus. They also aim to educate others about the viability of biodiesel as an alternative fuel.
- Vanderbilt Initiative for Vegetarian Awareness (VIVA): VIVA aims to advocate a healthy lifestyle that has a positive effect on humans, animals, and the planet.
- Environmental Law Society: The Environmental Law Society is an organization for students interested in learning more about environmental law and environmental legal careers. This group has sponsored numerous speakers, panels, and activities since its inception and aims to strengthen relationships between Vanderbilt Law students and local environmental groups.
- VUMC C.A.R.E.S.: VUMC C.A.R.E.S. is a medical student graduate group that promotes environmental and social responsibility among the medical community. This organization is responsible for implementing solid waste recycling within School of Medicine areas and creating an environmental/recycling lab pledge program. Over the last several years this organization has sponsored lectures that have addressed issues in the environment and how modern medicine affects or is affected by them.
- Vanderbilt Student Government Residential and Environmental Affairs sub-committee: Housed under the Housing, Facilities, and Operations committee, the VSG environmental affairs sub-committee promotes sustainability efforts and needs on campus, including the facilitation of the Think Gold, Act Green Coalition and other activities.
- Kefi Project: This student organization is dedicated to the creation of public art within the Vanderbilt campus. The project, through interdisciplinary and interdepartmental partnerships, intends to extend an education beyond the classroom and into the unexpected interactions of everyday life. They often focus on sustainability themes for their projects, including "Bottled," on exhibit in 2014. The installation, composed of over 2,228 plastic water bottles collected from Vanderbilt's Campus, explored the impact that water bottles have on our environment.

The website URL where information about student groups is available:

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

agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems:

Vanderbilt Educational Garden Initiative - The Vanderbilt Garden Initiative (VEGI) is a student-run organization that works to develop and maintain the Vanderbilt Community Garden in organic and sustainable ways, make the Vanderbilt Community Garden available to grow crops for as many Vanderbilt undergraduate and graduate students as possible, distribute the crops of the Vanderbilt Community Garden to students and community members, enhance the quality of life for the Vanderbilt University undergraduate body by providing them with an opportunity to grow organic crops, disseminate information about the efficacy and value of community gardens primarily to Vanderbilt University undergraduate and graduate students and secondarily to the public at large, work in partnership with other community and university gardens to increase awareness about community gardens, and teach Vanderbilt University undergraduate and graduate students about proper garden cultivating techniques and how they can start a community garden.

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

<http://www.vanderbilt.edu/sustainvu/2011/04/idea-for-community-garden-grows-into-reality>

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

Re{cycle} is a Vanderbilt student run organization offering bicycle rentals by the day, semester or year. The program gives the students the ease of bicycle transportation without having to worry about storage and maintenance and encourages students to explore Nashville beyond Vanderbilt's borders.

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

<http://universityrecycle.com/>

A brief description of the sustainable investment or finance initiatives:

Vanderbilt Green Fund - The Vanderbilt Green Fund is a fund of \$84,000+ set aside for sustainability projects proposed by students. Members of SPEAR and VSG established the Green Fund in the spring of 2011. The VGF looks for innovative and educational ideas that improve sustainability on campus.

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

<http://studentorgs.vanderbilt.edu/vsg/projects-and-initiatives/vanderbilt-green-fund>

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

In Fall 2011, Vanderbilt's program in American Studies initiated the Sustainability Project (

<http://www.vanderbilt.edu/americanstudies/sustainability/index.php>

), which aims to encourage campus-wide dialogue that will promote and further the university's sustainability efforts. Due to the success of the program, the Sustainability Project continued into the 2012-13 academic year with a focus on implementing the new minor in Environmental and Sustainability Studies.

A one-day conference titled, "Climate Change, Anti-Environmentalism, and American Politics" was held as well as a two-day residential scholar program on the theme "Jobs That Change the World." This program featured Billy Parrish, author of *Making Good: Finding Meaning, Money, and Community in a Changing World*, and introduced Vanderbilt undergraduates to local innovators and entrepreneurs who are shaping new industries that are both for-profit and for the greater good, including those emerging in clean energy, efficiency, electric cars, and infrastructure. The goal of these programs is to keep the momentum building on campus around the issue of sustainability.

In Spring 2013, the Sustainability and Environmental Management Office hosted a viewing of *The Lorax* and a "non-traditional" recycling collection open to student, faculty and staff in honor of Earth Day. The recycling event collected 33 ink and toner cartridges; 1 cell phone; 1 full 5 gallon battery bucket (approximately 60-70 lbs); $\frac{3}{4}$ of a 50 gallon tote of metal and e-waste (approximately 60-80 lbs); 10-12 cardboard boxes; and 50+ pens and pencils.

Additionally, the Vanderbilt Institute for Energy and the Environment, the Civil and Environmental Engineering department, and the Earth and Environmental Sciences department all have weekly sustainability symposia and speaker series that are open to the public with students as the intended audience.

<http://discoverarchive.vanderbilt.edu/handle/1803/5128>

<http://www.vanderbilt.edu/americanstudies/sustainability/events.php>

In the fall of 2013, Vanderbilt hosted the College and University Recycling Coalition's annual conference, featuring Dr. Andrea George, Director of Vanderbilt University's Sustainability and Environmental Management Office, as their keynote speaker. Attendees toured Vanderbilt's recycling and green facilities and learned about Vanderbilt's recycling and sustainability program.

Vanderbilt was also a local host for Nashville also hosted the 2013 Association for the Advancement of Sustainability in Higher Education (AASHE) Conference and Expo. The conference offered sustainability-related keynote speakers, workshops, student summits, community service opportunities, panels, and tours to 1,800 faculty, staff and students interested in and working in sustainability. Vanderbilt was an active participant in bringing this conference to Nashville.

<http://conference.aashe.org/2013/>

<http://discoverarchive.vanderbilt.edu/handle/1803/5128>

<http://www.vanderbilt.edu/americanstudies/sustainability/events.php>

Other lectures and events:

2014 -

Dodd Galbreath, Founding Director, Institute for Sustainable Practice, Lipscomb University: Graduate Program Options in Sustainability Studies

Tiffany Wilmot, President of Wilmot Inc.: tour of sustainability features of the Martha Ingram Commons Center. Wilmot gave a tour of The Commons to talk about special features for energy efficiency. Ms. Wilmot is the president of Wilmot, Inc., and is a nationally recognized expert on green buildings and energy efficiency.

Lori Hunter, associate professor of sociology at the University of Colorado: Migration, Natural Resources and Livelihoods in Rural South Africa. The results of several research papers are summarized — demonstrating intriguing associations between environmental factors and outmigration. In general, households with higher levels of local natural resources are more likely to engage in temporary migration although this association is highly localized, varying from strongly positive in some villages to strongly negative in others.

Brooke Ackcerly, associate professor of political science and philosophy at Vanderbilt: Getting Global Responsibility on the “Rights” Track. Ackerly’s research interests include democratic theory, feminist methodologies, human rights and social and environmental justice. An award winner for both mentoring and graduate teaching, Ackerly is also the founder of the Global Feminisms Collaborative, a group of scholars and activists developing ways to collaborate on applied research for social justice.

Climate Connections: Bridging the Gap between Students and Sustainability; Vanderbilt SPEAR. In 2014, SPEAR and VSG teamed up for an inspiring and informative discussion of the intersection of the environment and society. Two TED-style talks and an open panel addressed how climate change is intertwined with nearly everything that influences daily life, including economics, entrepreneurship, policy, food, health, and even faith. Headlining speakers were Param Jaggi, founder and CEO of EcoViate and 2012-2013 Forbes 30 Under 30 honoree and Dr. Jonathan Gilligan from the Department of Earth and Environmental Sciences at Vanderbilt.

Warren M. Washington, Sr. Scientist at the National Center for Atmospheric Research: The Development of Computer Earth System Models: Climate Change in the 20th and 21st Century. Washington explained how climate research pioneers unraveled the fundamentals of how Earth’s climate system works, and the substantial progress on these early models in the past half century. He also will present examples of future improvements to observational and model studies that will provide new knowledge, which will make global climate change information more useful for the public and policymakers.

Paolo D’Odorico, Professor, University of Virginia: Achieving Food Security by Trading and Grabbing Water. Demographic growth and the escalating demand for food, fibers and biofuels are directly or indirectly enhancing the societal pressure on the global freshwater resources. Thus meeting the competing water needs of ecosystems and societies is becoming a major challenge for the humanity. Even though food production accounts for most of the human appropriation of freshwater resources, the complex patterns of societal dependence on water for food security remain poorly understood. The way societies virtually enhance their access to freshwater resources through trade, foreign land acquisitions, and globalization is here discussed in the context of food security, demographic growth, environmental stewardship, and societal resilience.

Shahzeen Attari, Assistant Professor at Indiana University’s School of Public & Environmental Affairs: Perceptions of Energy and Water Use. Attari is one of the leaders in the field of environmental and energy psychology. Her work has been published in leading journals and has received widespread media attention. Attari spoke on energy efficiency, environmental regulation of households, water use, and water conservation.

Earth and Environmental Studies Seminar Series: Larry Band, UNC Chapel Hill: Green Infrastructure, Groundwater and the Sustainable City. Band discussed the need to focus on the urban critical zone, and the development and adaptation of new modeling and analytical approaches to understand and plan green infrastructure based on surface/groundwater/ecosystem interactions, and implications for the restoration and new design of cities.

Avi Garbow, General Counsel U.S. EPA: The Environmental Protection Agency Agenda. From greenhouse gases to wetlands to fracking, the EPA is at the center of many of the most important issues affecting environmental, energy, and land use law in the United States. Avi Garbow, the EPA General Counsel, is uniquely positioned to provide insights to students, faculty and the community about EPA's agenda.

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

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

Bottled: An Exploration of Water and the Plastic that Often Contains it. Created by the Kefi Project, and composed of over 2,228 plastic water bottles collected from the Vanderbilt campus, the three installations that make up Bottled explored the many components of this liquid integral to our existence. Launched on March 22, 2014 (World Water Day), each piece had its own distinctive message, ranging from sustainability on campus to the limited access of clean water around the globe.

The importance of bees and Tennessee native flowers in local food production is a major theme of a new art installation at the Vanderbilt University Central Library's Food for Thought Café. "From A to B" is housed within the display niches of the distinctive and original card catalogue that functions as a "wall" between the serving and seating areas of the café. Artist Myranda Bair of Las Vegas, Nev., has created 13 dioramas that depict native Tennessee flowering plants and beehives with the use of watercolor on paper cutouts, brass wire and cork.

http://news.vanderbilt.edu/2012/09/ecological-art/?utm_source=myvupreview&utm_medium=myvu_email
http://news.vanderbilt.edu/2012/09/ecological-art/?utm_source=myvupreview&utm_medium=myvu_email&utm_campaign=myvupreview-2012-10-01

SHADE GROWN: An evening of environmental poetry, spoken word, songs, comedy and short performances.

<http://www.vanderbilt.edu/sustainvu/2012/03/shade-grown-an-evening-of-environmental-poetry-spoken-word-songs-comedy-and-short-performances/>

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

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

Wilderness Skills (WilSkills) - Wilderness Skills is Vanderbilt University's premier outdoor experience. The entirely student-run course is designed to integrate academic study with practical experience in the wilderness. It utilizes both the classroom and the environment, combining lectures, films, and discussions with trips to the surrounding areas. The trips are designed to teach students the basic techniques of backpacking, caving, rock climbing, and whitewater paddling. As man is not only an explorer, but the product of the natural

world, students are taught the proper methods of coexistence with the environment without harmfully altering it.

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

http://studentorgs.vanderbilt.edu/wilskills/?page_id=56

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

All first-year VU students are required to participate in the “Vanderbilt Visions” program, which is a small-group orientation program that meets weekly during their first year on campus. The Visions program includes discussion sessions on topics relevant to sustainability and the environment that all students must complete. Additionally, first-year students are required to complete “Commons Reading”, which often includes sustainability themed books (Earth – Bill McKibben and Half the Sky - Nicholas Kristof and Sheryl WuDunn). Vanderbilt University provides myriad opportunities for students to partake in sustainability and environmentally-focused coursework, research and educational opportunities. In Fall 2011, Vanderbilt’s program in American Studies initiated the Sustainability Project (

<http://www.vanderbilt.edu/americanstudies/sustainability/index.php>

), which aims to encourage campus-wide dialogue that will promote and further the university’s sustainability efforts. Due to the success of the program, the Sustainability Project continued into the 2012-13 academic year with a focus on implementing the new minor in Environmental and Sustainability Studies. Vanderbilt’s Center for Teaching sponsored the Cumberland Project (

<http://cumberland.vanderbilt.edu/>

) in May 2012, a two-day workshop intended to foster an interdisciplinary teaching and learning community around sustainability themes at Vanderbilt. During the 2011-2012 academic year, various departments within VU, including Department of English and Department of History, taught general courses with a sustainability theme. This was such a success that it was continued into 2012-2013.

The website URL where information about the theme is available:

<http://as.vanderbilt.edu/academics/experientiallearning/vanderbiltvisions/>

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

Vanderbilt Eco-Dores - The Vanderbilt Eco-Dores program, launched in Fall 2009, is a peer education Eco-Reps program to encourage environmental education and to help students recognize the systemic and interdisciplinary nature of ecology and environmental sustainability. Eco-Dores are residents in the housing system who act as “peer educators” and mentor other students to live in a more environmentally sustainable way. Each Eco-Dore will be given guidance and support during collaborative educational sessions throughout the year in which they will be introduced to a topic related to that month’s theme and brainstorm actions that they could implement in their own residence hall. The goal is that residents of each hall will find their own way to respond to the theme and their own best solution.

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

A brief description of sustainability-focused student employment opportunities:

The Sustainability and Environmental Management Office (SEMO) at Vanderbilt regularly employs two undergraduate students as student-workers for the year. These students work primarily with sustainability outreach and data entry for Vanderbilt's annual Greenhouse Gas Emissions Inventory. In addition, 8-9 students are employed each semester to serve as recycling technicians, who regularly service residential recycling areas on campus. In 2014, two full-time summer research intern positions were added in the Sustainability and Environmental Management Office to provide additional opportunities for undergraduates to develop research projects using the campus as a laboratory. One position is focused on recycling while the other looks at energy conservation. The 2014 recycling intern studied the most effective method of delivering recycling information to our undergraduate students and determined that an online app would work best. He then worked with the Library system to start to develop the database needed and program the app structure. Completion of this project is expected by graduation 2015.

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

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

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

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

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

Outreach Materials and Publications

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

- A central sustainability website that consolidates information about the institution's sustainability efforts
- A sustainability newsletter
- Social media platforms (e.g. Facebook, Twitter, interactive blogs) that focus specifically on campus sustainability
- A vehicle to publish and disseminate student research on sustainability
- Building signage that highlights green building features
- Food service area signage and/or brochures that include information about sustainable food systems
- Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed
- A sustainability walking map or tour
- A guide for commuters about how to use alternative methods of transportation
- Navigation and educational tools for bicyclists and pedestrians (e.g. covering routes, inter-modal connections, policies, services, and safety)
- A guide for green living and incorporating sustainability into the residential experience
- Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat
- Other

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

Submission Note:

Other Social Media Accounts:

<http://instagram.com/sustainvuvanderbilt>

<https://twitter.com/SustainVU>

<https://plus.google.com/109397734967030071529/posts>

Other Green Living/Residential Living URL:

<http://www.vanderbilt.edu/sustainvu/thecommons/>

<http://studentorgs.vanderbilt.edu/vsg/services/think-gold-act-green/>

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

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

	Yes or No
A central sustainability website that consolidates information about the institution's sustainability efforts	Yes
A sustainability newsletter	Yes
Social media platforms that focus specifically on campus sustainability	Yes
A vehicle to publish and disseminate student research on sustainability	Yes
Building signage that highlights green building features	Yes
Food service area signage and/or brochures that include information about sustainable food systems	Yes
Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed	No
A sustainability walking map or tour	Yes
A guide for commuters about how to use alternative methods of transportation	Yes
Navigation and educational tools for bicyclists and pedestrians	Yes

A guide for green living and incorporating sustainability into the residential experience	Yes
Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat	Yes
Other sustainability publications or outreach materials not covered above	Yes

A brief description of the central sustainability website:

SustainVU is an umbrella identity and website,

www.vanderbilt.edu/sustainvu

, managed by the Vanderbilt University Sustainability and Environmental Management Office (SEMO) for the wide variety of sustainability initiatives underway by students, staff and faculty groups. Monthly, SustainVU sends out an email newsletter to subscribers detailing what has happened in the world of sustainability and at Vanderbilt in the past month and lists upcoming events related to sustainability for the following month

The website URL for the central sustainability website:

<http://www.vanderbilt.edu/sustainvu>

A brief description of the sustainability newsletter:

The SustainVU email newsletter is published monthly, highlighting sustainability stories and upcoming events relative to the Vanderbilt Community. Other social media pages are used to disseminate information on a more frequent basis including: Facebook, Instagram, Twitter, and Google+.

The website URL for the sustainability newsletter:

<http://www.vanderbilt.edu/sustainvu/email>

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

Multiple social media pages are used to disseminate information on a more frequent basis. Social media accounts include:

- Facebook (

<https://www.facebook.com/SustainVU>

) page

- Instagram (

<http://instagram.com/sustainvuvanderbilt>
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)

• Twitter (

<https://twitter.com/SustainVU>

)

• Google+ (<https://plus.google.com/109397734967030071529/posts>)

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

<https://www.facebook.com/SustainVU>

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

The SustainVU webpage has a section devoted to research relating to sustainability within Vanderbilt and the Nashville Community.

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

<http://www.vanderbilt.edu/sustainvu/research>

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

An educational kiosk – “The Green Screen” – in the lobby of The Commons Center gives members of the Vanderbilt and Nashville communities an opportunity to learn about the green features of the building and the entire Commons community. There is signage throughout the building with information about the green features, as well as a brochure and a tour that is available for download onto an iPod or MP3 player. Additionally, each of the ten first-year residence halls have “Green Lights” screens which connect to Vanderbilt’s energy dashboard,

energyvu.vanderbilt.edu

, and alert the students and visitors of the energy usage of the building they are in. The “Green Lights” screens also notify students as to whether they are above or below their targeted energy usage for the day.

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

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

Vanderbilt Dining utilizes icons to indicate sustainable food items as part of their “Eat the World, Save the Earth” program. The icons indicate organic, local, vegetarian, vegan, and fair trade foods as well as recycled materials (food containers).

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

<http://campusdining.vanderbilt.edu/about/eat-the-world-save-the-earth>

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

NA

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

A brief description of the sustainability walking map or tour:

A video/audio walking tour is also available for download for Mac and Windows-based mp3/iPod-type devices. This building tour will take you to highlighted LEED features around The Commons Center's accessible areas.

Vanderbilt is an arboretum and has a tour available to showcase the University's trees and shrubs,

<http://bioimages.vanderbilt.edu/arboretum.htm>

, and also has an online virtual tour,

<http://admissions.vanderbilt.edu/tour/go/>

.

The website URL of the sustainability walking map or tour:

<http://admissions.vanderbilt.edu/tour/go/>

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

The SustainVU website has a section strictly dedicated to alternative transportation, providing resources for biking, bus and rail, car sharing and carpooling, electric vehicle use, and student shuttles, in addition to other resources. Alternative transportation options are also listed on the Vanderbilt Traffic and Parking website.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation>

http://www.vanderbilt.edu/traffic_parking/alternative-transportation.php

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

[Campus Sustainability Data Collector | AASHE](#)

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation>

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

The SustainVU website has a section strictly dedicated to alternative transportation, providing resources for biking, bus and rail, car sharing and carpooling, electric vehicle use, and student shuttles, in addition to other resources. Furthermore, the Biking section of the website contains a map locating the bike rack and shower facilities on campus, as well as detailing bike share programs on and near campus and other biking resources.

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

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/bicycle-options/>

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

Vanderbilt Student Government (VSG) partners with SEMO to promote the Think Gold Act Green (TGAG) initiative on campus. TGAG offers tips to students to help reduce energy and water usage, recycle, travel smarter and reduce waste, among other things.

<http://studentorgs.vanderbilt.edu/vsg/services/think-gold-act-green/>

The Ingram Commons has an online LEED overview, which is also available via touch screen in The Commons Center. This overview provides 12 tips to live sustainable in a LEED building.

<http://www.vanderbilt.edu/sustainvu/thecommons/>

Vanderbilt has an educational program specific to energy conservation at VU termed the ThinkOne energy conservation program. This program encourages energy conservation through behavioral change and was developed in collaboration with the Department of Psychology and the Center for Evaluation and Program Improvement based on peer-reviewed academic research from other areas of behavioral change, such as recycling and weight loss literature. This program seeks to reduce energy consumption at Vanderbilt by 10% through behavioral change alone.

The Sustainability and Environmental Management Office (SEMO) has also published several green living guides to provide guidance to residential students, including for Sustainable Events and Sustainable Holidays, that provide tips for reducing environmental impacts.

<http://www.vanderbilt.edu/sustainvu/resources/greening-guides/sustainable-event-greening-guide/>

<http://www.vanderbilt.edu/sustainvu/resources/greening-guides/sustainable-holiday-greening-guid>

[e/](#)

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

<http://www.vanderbilt.edu/sustainvu/thinkone>

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

The Vanderbilt Hustler has a reporter assigned to sustainability topics and they regularly pick up stories from on-campus sustainability student organizations. The online version of the Hustler, Inside Vandy, also has a green living feed that streams on-campus articles as well as those from national green feeds.

Additionally, a new environmentally-focused student newspaper was launched in the 2014-2015 academic year called the Orbis.

<http://vanderbiltorbis.com/>

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

http://www.insidevandy.com/online_features/green_living

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

MyVU is a bi-weekly email newsletter that is sent to all Vanderbilt faculty and staff. The Sustainability and Environmental Management Office regularly contributes stories and articles to this publication, which reaches the VU community. The stories are also posted on the MyVU websites. VU News and Public affairs also has a public information officer who is assigned to the sustainability beat.

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

<http://news.vanderbilt.edu/myvu>

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

Yes

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

MyVUMC is a bi-weekly email newsletter that is sent to all Vanderbilt Medical Center staff. The Sustainability and Environmental Management Office regularly contributes stories and articles to this publication, which reaches the VUMC community. The stories are also posted on the MyVUMC websites. VU News and Public affairs also has a public information officer who is assigned to the sustainability beat.

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

<http://www.mc.vanderbilt.edu/myvumc>
Campus Sustainability Data Collector | AASHE

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

Yes

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

SEMO also places information, when relevant, in the weekly Office of Housing and Residence Education (OHARE) emails, InnerVU. All stories pertaining to the Vanderbilt student community are provided to the Vanderbilt Hustler and InsideVandy, the print and web versions of the student newspaper, and they are picked up by the editors at their discretion. Stories and information are also distributed directly to student organizations that have an interest in sustainability or are sustainability related and they disseminate within their groups.

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

<http://www.vanderbilt.edu/innervu>

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

Yes

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

SEMO writes and contributes sustainability tips to the weekly email that the Vanderbilt Student Government (VSG) sends out to all students.

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

<http://studentorgs.vanderbilt.edu/vsg>

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

No

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

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

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

No

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

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

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

No

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

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

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

No

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

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

Outreach Campaign

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

Part 2

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

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

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

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

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

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

Yes

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

Yes

The name of the campaign (1st campaign):

The Ingram Commons Cup

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

The Ingram Commons Cup - Just as Hogwarts has its House Cup, The Ingram Commons has the Commons Cup with ten individual Houses competing against each other in academics, intramural sports, House involvement, community involvement and sustainability. The Commons Cup is awarded at the Commons Carnival on the last day of classes. Students in first-year houses compete against each other to conserve as much energy as possible in their own House each year. Each month, the ten residence Houses' electricity usage data is sent to The School for Science and Math, a joint venture between Vanderbilt University Medical Center and Metropolitan Nashville Public Schools (MNPS), which offers high school students a four-year, interdisciplinary, research-centered learning experience. The School for Science and Math calculates the houses with the most energy conserved as compared to the same house the previous year. Points are awarded on a sliding scale, and the points are added to each House's running total to determine placement in The Commons Cup.

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

Past years' competition resulted in approximately \$10,000 in energy savings in five months by reducing energy usage by 3.5% compared to the previous year. Recycling metrics will be added in future years.

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

<http://commons.vanderbilt.edu/houses/student-life.php>

The name of the campaign (2nd campaign):

Holiday Energy Bowl

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

Holiday Energy Bowl – Created in 2013, the Holiday Energy Bowl encourages faculty and staff to lower thermostats, turn off lights, electronic and equipment and close fume hoods in order to save energy during the weeks of Christmas and New Years, when fewer people are on campus. Plant Operations also centrally lowers heat to unoccupied spaces while the students are away, including residence halls and classrooms.

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

The 2013 Go Green for the Holidays and Energy Bowl contests resulted in \$200,000 in energy savings combined.

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

<http://www.vanderbilt.edu/sustainvu/2014/01/university-saves-more-than-200000-commons-center-is-energy-bowl-winner>

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

Go Green for the Holidays Contest – Created in 2013, the Go Green for the Holidays Contest encourages faculty and staff to lower thermostats, turn off lights, electronic and equipment and close fume hoods in order to save energy during the weeks of Christmas and New Years, when fewer people are on campus. The 2013 Go Green for the Holidays and Energy Bowl contests resulted in \$200,000 in

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energy savings combined.

<http://www.vanderbilt.edu/sustainvu/2014/01/pharmacology-lab-named-vumc-go-green-for-the-holidays-contest-winner/>

Athletics Sustainability Competition – “Greenest Group on Campus” – Twice a year, the athletics sustainability competition, presented by Vanderbilt Athletics, Waste Management and SEMO, invites all Vanderbilt groups, teams, departments and campus organizations to compete for the title of “greenest group on campus” by completing an application detailing what sustainable actions their group routinely implements to reduce, reuse or recycle; save energy or water; use mass transit and alternative transportation options; or any other innovative sustainability programs going on within their department or organization. The winning group receives free tickets to either a VU football game or a VU basketball game, depending on the season in which the competition is held, on-field or on-court recognition and a catered tailgate or in-game event for 20-25 people as well as a signed premium item and recycled glass award.

<http://www.vanderbilt.edu/sustainvu/2014/01/2014-greenest-group-on-campus-competition-going-on-now/>

The Ingram Commons Cup - Just as Hogwarts has its House Cup, The Ingram Commons has the Commons Cup with ten individual first year Houses competing against each other in academics, intramural sports, House involvement, community involvement and sustainability. The Commons Cup is awarded at the Commons Carnival on the last day of classes. Students in first-year houses compete against each other to conserve as much energy as possible in their own House each year. Each month, the ten residence Houses' electricity usage data is sent to The School for Science and Math, a joint venture between Vanderbilt University Medical Center and Metropolitan Nashville Public Schools (MNPS), which offers high school students a four-year, interdisciplinary, research-centered learning experience. The School for Science and Math calculates the houses with the most energy conserved as compared to the same house the previous year. Points are awarded on a sliding scale, and the points are added to each House's running total to determine placement in The Commons Cup.

Employee Educators Program

Criteria

Institution administers or oversees an ongoing faculty/staff peer-to-peer sustainability outreach and education program.

In the program, employee sustainability educators are formally designated and receive formal training or participate in an institution-sponsored orientation. The institution offers financial or other support to the program.

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

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

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

Employee Orientation

Criteria

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

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

Staff Professional Development

Criteria

Institution makes available training and/or other professional development opportunities in sustainability to all staff at least once per year.

Separate training opportunities for each department would count for this credit, as long as each staff member has an opportunity to learn about sustainability at least once per year. It is not necessary that each staff member attend such trainings; the credit is based on making training available to all staff.

This credit applies to staff members only; it does not include faculty members.

The following training opportunities are not sufficient for this credit:

- Specialized training for a small group of staff
- The opportunity to participate in an institutional sustainability committee or group

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

Public Engagement

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

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

Community Partnerships

Criteria

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

Each partnership conforms to one of the following types:

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

C.Transformative

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

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

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

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

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

Inter-Campus Collaboration

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

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

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

Does the institution collaborate with other colleges and universities to support and help build the campus sustainability community?:

Yes

A brief summary of papers, guides, presentations, and other resources the institution has developed to share their sustainability experience with other institutions:

Vanderbilt University hosted the 2013 College and University Recycling Coalition's annual workshop bringing together over 100 college recycling professionals from around the world to learn from each other. Dr. Andrea George, director of Vanderbilt's Sustainability Office, provided a keynote address detailing Vanderbilt's successful recycling programs and then attendees spent the afternoon touring Vanderbilt's recycling and sustainability facilities.

Vanderbilt University was represented at the 2013 AASHE National Conference in a panel session entitled "Teaching Sustainability & Fostering Change at Vanderbilt University", moderated by Dr. Andrea George who also provided an overview of Vanderbilt's non-academic sustainability accomplishments. Dr. Teresa Goddu (Director of American Studies and Associate Professor of English) discussed the Sustainability Project, an endeavor to promote an interdisciplinary learning community around sustainability using curricular and co-curricular structures. Dr. David Hess (Professor of Sociology and Director of Environmental and Sustainability Studies) discussed the development of the new Environmental and Sustainability Studies curriculum and its ties to a growing research emphasis on sustainability across the disciplines. And, Dr. Joe Bandy (Faculty in Sociology and Assistant Director of the Center for Teaching) discussed the Cumberland Project, a workshop built upon the model of Emory's Piedmont Project, one designed to encourage curricular and instructional development around themes of sustainability. In each instance, attendees were given guidance on how to duplicate a similar program at their college/university.

Vanderbilt's Sustainability and Environmental Management Office developed a series of publicly available greening guides including Holiday Greening, Department Greening and Event Greening. A laboratory greening guide is currently being completed. Also, Vanderbilt is one of only a small portion of universities nationwide that have completed GHG inventory reports and made them publicly available at this time. There are also numerous resources available on the SustainVU website (

) that provide guidance for topics such as waste and recycling, alternative transportation, sustainable dining, green printing and procurement and efficient water usage.

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

- The Tennessee Higher Education Sustainability Association (THESA)
- The Association for Advancement of Sustainability in Higher Education (AASHE)
- Tennessee Department of Environment and Conservation (TDEC)
- U.S. Environmental Protection Agency: Strategies for Colleges and Universities
- Clean Air Partnership of Middle Tennessee
- Tennessee Pollution Prevention Roundtable
- TP2R Subcommittee on Sustainability in Higher Education
- Greener Nashville
- The Tennessee Fund for Sustainability
- Tennessee Environmental Council (TEC)
- Campus Sustainability
- Campus Consortium for Environmental Excellence (C2E2)
- Campus Safety Health and Environmental Management Association
- National Association of College and University Business Officers (NACUBO)
- Higher Education Associations Sustainability Consortium (HESAC)
- Society for College and University Planning (SCUP)
- Association of Higher Education Facilities Officers
- University Leaders for a Sustainable Future
- Second Nature – Education for Sustainability
- Campaign for Environmental Literacy
- College and University Recycling Council (CURC)
- The Rechargeable Battery Recycling Corporation
- Students Promoting Environmental Awareness and Responsibility (SPEAR)
- Think Gold, Act Green Coalition.
- Vanderbilt Sierra Club
- Owen Graduate School of Management NetImpact
- Vanderbilt Alternative Energy Club
- Vanderbilt Initiative for Vegetarian Awareness (VIVA)
- Environmental Law Society
- VUMC C.A.R.E.S.
- Vanderbilt Student Government Environmental Affairs sub-committee
- Vanderbilt Eco-Dores
- Vanderbilt Educational Garden Initiative (VEGI)
- Kefi Project
- Wilderness Skills (WilSkills)

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

The director of the Sustainability and Environmental Management Office serves on the board for many of the organizations above and members of the SEMO office attend many conferences and meetings held by those organizations. SEMO is also active on university listservs that allow for communication and collaboration between other schools remotely.

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

<http://www.vanderbilt.edu/sustainvu/resources/links-partners>

Continuing Education

Criteria

Part 1

Institution offers continuing education courses that address sustainability.

Courses that address sustainability include continuing education sustainability courses and continuing education courses that include sustainability. Courses that can be taken for academic credit are not included in this credit. They are covered by the Curriculum subcategory.

Part 2

Institution has at least one sustainability-themed certificate program through its continuing education or extension department.

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

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

Community Service

Criteria

Part 1

Institution engages its student body in community service, as measured by the percentage of students who participate in community service.

Part 2

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

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

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

Community Stakeholder Engagement

Criteria

Institution has adopted a framework for community stakeholder engagement in governance, strategy and operations. The framework includes:

1) Policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution's activities (e.g. planning and development efforts, capital investment projects, and/or other activities and decisions that affect the broader community)

And

2) Established practices to identify and engage relevant community stakeholders, including any vulnerable or underrepresented groups.

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

This credit does not include the engagement of internal campus stakeholders (e.g. students, faculty and staff); internal stakeholder engagement is covered in *PA 3: Governance*.

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

Participation in Public Policy

Criteria

Institution advocates for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability.

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

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

Trademark Licensing

Criteria

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

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

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

Institution's affiliated hospital or health system is a member of the Global Green and Healthy Hospitals Network, the Healthier Hospitals Initiative and/or Practice Greenhealth.

This credit includes hospitals and health systems that are formally affiliated with a higher education institution (sometimes called "university hospitals"). Other types of health care providers (e.g. insurers through which an institution obtains health care for its employees) are not included.

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

Is the institution a member of the Global Green and Healthy Hospitals Network?:

No

Is the institution a member of the Healthier Hospitals Initiative?:

No

Is the institution a member of Practice Greenhealth?:

No

A brief description of the hospital's sustainability initiatives:

- Lighting retrofits including more efficient lighting fixtures, motion-detected lighting, dimmed lighting and corridors with reduced lighting.
- Retrofits to make boilers and chillers more energy efficient.
- Installation of occupancy sensors in 56 operating rooms throughout Vanderbilt University Medical Center to automatically reduce the ventilation air quantity delivered when the operating rooms are unoccupied.
- Creation of Vanderbilt University Medical Center Sustainability Committee. Made up of nurses, doctors, procurement staff, housekeeping staff and SEMO, VUMC initiated the sustainability committee in 2012 to address sustainability initiatives within the Medical Center.
- Conversion of on-campus power plant from dual-fueled coal and natural gas to 100% natural gas. Because Vanderbilt University Medical Center is a major regional Level 1 Trauma Medical Center and Children's Hospital, as well as housing for important experiments and research samples, it is essential to be powered by reliable, uninterrupted energy supply 24 hours a day, 7 days a week, 365 days per year, especially in the event of a widespread emergency or loss of power in the Nashville community. Because of the emergency needs required by our Medical Center, the power plant is an essential part of the campus.
- Vanderbilt University Hospital Recycling Program – In 2013, 6,010 tons of waste was recycled at Vanderbilt University Medical

Center (VUMC), which is 47% of the total waste generated by VUMC.

The website URL where information about the hospital's sustainability initiatives is available:

<http://www.vanderbilt.edu/sustainvu/what-we-do/waste-and-recycling/vanderbilt-university-hospital-recycling-program>

Operations

Air & Climate

This subcategory seeks to recognize institutions that are measuring and reducing their greenhouse gas and air pollutant emissions. Global climate change is having myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are particularly pronounced for low-income communities and countries. In addition, institutions that inventory and take steps to reduce their air pollutant emissions can positively impact the health of the campus community, as well as the health of their local communities and regions.

Credit
Greenhouse Gas Emissions
Outdoor Air Quality

Greenhouse Gas Emissions

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has conducted a publicly available greenhouse gas (GHG) emissions inventory that includes, at minimum, Scope 1 and Scope 2 GHG emissions and may also include Scope 3 GHG emissions. The inventory may be validated internally by campus personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party.

Part 2

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

Part 3

Institution's annual adjusted net Scope 1 and Scope 2 GHG emissions are less than the minimum performance threshold of 0.02 metric tons of carbon dioxide equivalent (MtCO_{2e}) per gross square foot (0.002 MtCO_{2e} per gross square metre) of floor area.

Performance for Part 3 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

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

1. Institution-catalyzed carbon offsets (popularly known as "local offsets")
2. Carbon sequestration due to land that the institution manages specifically for sequestration (as documented in policies, land management plans or the equivalent)
3. Carbon storage from on-site composting
4. Third-party verified purchased carbon offsets

Purchased Renewable Energy Certificates (RECs) that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party may be counted as zero emissions energy for purposes of Scope 2 GHG accounting.

Purchased carbon offsets and RECs that have not been third-party verified do not count.

Institutions that have sold or transferred emissions reductions, e.g. in the form of verified emissions reductions (VERs), may not count those reductions toward this credit.

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

Does the institution's GHG emissions inventory include all Scope 1 and Scope 2 GHG emissions?:

Yes

Does the institution's GHG emissions inventory include all Scope 3 GHG emissions from any of the following categories?:

	Yes or No
Business travel	Yes
Commuting	Yes
Purchased goods and services	No
Capital goods	No
Fuel- and energy-related activities not included in Scope 1 or Scope 2	No
Waste generated in operations	Yes

Does the institution's GHG emissions inventory include Scope 3 emissions from other categories?:

No

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

In order to create a single, consistent methodology for calculating and reporting GHG emissions for the University, emissions for Vanderbilt, including those years prior to 2009, were calculated utilizing the EPA's scope and emissions factors for relevant stationary sources. Emissions from all sources not covered by the GHG reporting rule were calculated using methodology from the Clean Air – Cool Planet Campus Carbon Calculator™ (Campus Carbon Calculator) or emissions factors developed for specific on-campus activities.

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 internal and/or external verification process:

Report is reviewed and verified by Director of Vanderbilt's Sustainability and Environmental Management Office, Chair of the Environmental Advisory Committee, Vice Chancellor for Administration, Deputy Vice Chancellor for Facilities and Environmental Affairs, Assistant Vice Chancellor for Plant Operations, Executive Director, Environmental Health and Safety, Environmental Management Systems Coordinator, and Sustainability Outreach Coordinator.

Scope 1 and Scope 2 GHG emissions::

	Performance Year	Baseline Year
Scope 1 GHG emissions from stationary combustion	155,065 <i>Metric Tons of CO2 Equivalent</i>	153,161 <i>Metric Tons of CO2 Equivalent</i>
Scope 1 GHG emissions from other sources	8,821 <i>Metric Tons of CO2 Equivalent</i>	8,310 <i>Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from purchased electricity	151,549 <i>Metric Tons of CO2 Equivalent</i>	223,343 <i>Metric Tons of CO2 Equivalent</i>
Scope 2 GHG emissions from other sources	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

Figures needed to determine total carbon offsets::

	Performance Year	Baseline Year
Institution-catalyzed carbon offsets generated	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Carbon sequestration due to land that the institution manages specifically for sequestration	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Carbon storage from on-site composting	0 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>
Third-party verified carbon offsets purchased	4,603 <i>Metric Tons of CO2 Equivalent</i>	0 <i>Metric Tons of CO2 Equivalent</i>

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

VU/MWS Renewable Energy Showcase – In collaboration with Nashville Metro Water Services (MWS), Vanderbilt School of Engineering (VUSE) set up a wind-solar renewable energy site at Love Hill in Nashville. The main purpose of this project is to examine the feasibility of alternative energy production through solar and wind facilities, and the expectation is that about 30 kWh of energy will be generated on a daily basis. 30 kWh is the average daily consumption of electrical energy per household across the US, according to the US Energy Information Administration. Love Hill is one of the highest points in Nashville and the wind speeds atop the hill are suitable for wind power generation, especially during the windy months of November through April. In the first phase of the project, a wind monitoring station was set up at Love Hill to measure and establish analytical models for energy production. Owing to the proximity of homes, and considering issues of neighborhood aesthetics and noise, only a modest 3 kW turbine has been installed. The wind power is

[Campus Sustainability Data Collector | AASHE](#) Snapshot | Page 99

complemented by solar power of 4.8 kW capacity. The electricity at the site does not return directly to the Vanderbilt campus.

<http://www.vanderbilt.edu/lc/>

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

A brief description of the composting and carbon storage program:

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

Vanderbilt purchases 750 blocks per month of renewable energy through TVA’s Green Power Switch Program. Vanderbilt is the largest producer of green power through NES, the local electrical provider.

Figures needed to determine “Weighted Campus Users”::

	Performance Year	Baseline Year
Number of residential students	6,048	6,210
Number of residential employees	19	7
Number of in-patient hospital beds	1,019	832
Full-time equivalent enrollment	12,710	11,037
Full-time equivalent of employees	22,538	19,437
Full-time equivalent of distance education students	0	0

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

	Start Date	End Date
Performance Year	Jan. 1, 2013	Dec. 31, 2013

Baseline Year	Jan. 1, 2005	Dec. 31, 2005
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A brief description of when and why the GHG emissions baseline was adopted:

Gross floor area of building space, performance year:

9,100,000 *Square Feet*

Floor area of energy intensive building space, performance year:

	Floor Area
Laboratory space	417,062 <i>Square Feet</i>
Healthcare space	6,240,000 <i>Square Feet</i>
Other energy intensive space	42,821.76 <i>Square Feet</i>

Scope 3 GHG emissions, performance year::

	Emissions
Business travel	16,814 <i>Metric Tons of CO2 Equivalent</i>
Commuting	85,314 <i>Metric Tons of CO2 Equivalent</i>
Purchased goods and services	0 <i>Metric Tons of CO2 Equivalent</i>
Capital goods	0 <i>Metric Tons of CO2 Equivalent</i>
Fuel- and energy-related activities not included in Scope 1 or Scope 2	0 <i>Metric Tons of CO2 Equivalent</i>
Waste generated in operations	2,128 <i>Metric Tons of CO2 Equivalent</i>
Other categories (please specify below)	0 <i>Metric Tons of CO2 Equivalent</i>

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

A copy of the most recent GHG emissions inventory:

[2013 GHG Full Report Color Final 10-20-14.pdf](#)

The website URL where the GHG emissions inventory is posted:

<http://www.vanderbilt.edu/sustainvu/what-we-do/greenhouse-gases/2013-greenhouse-gas-emissions-inventory-update-published-october-2014/>

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

In Fall 2013, Vanderbilt University began the conversion of its co-generation power plant from dually fueled with coal and gas fuel to fueled by only-natural gas. On November 19, 2014, the plant burned its last load of coal. The power plant, which now runs on 100% natural gas, will continue to meet the power needs of the University and Medical Center, but in a much more environmentally sustainable way. This conversion will increase operational efficiency, reduce greenhouse gas emissions, air pollutant emissions and noise pollution, and eliminate associated fuel use and emissions from trucking coal to the power plant.

Other initiatives include:

- o Hiring a Campus Energy Manager to implement building retrofits and energy efficiency projects.
- o Making TVA's Green Power Switch a part of VU's power portfolio (Vanderbilt is the largest purchaser of green power in the NES distribution area).
- o Launching the campus-wide ThinkOne energy conservation campaign and the Eco-Dores environmental peer residential mentoring program to promote smart and efficient use of utilities via education and behavior change.
- o Implementation of aggressive night temperature and lighting set back programs, lighting retrofits, and re-commissioning of utilities in older buildings.
- o Design or renovation of 15 projects on campus that meet requirements for the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) designation, the nationally accepted benchmark for the design, construction, and operation of high-performance energy-efficient green buildings. More information about sustainable building at Vanderbilt can be found on Campus Planning and Construction's Sustainable Building page or the SustainVU Green Building page.
- o Reduction of fuel used by Vanderbilt's fleet of vehicles by conversion to electric-powered vehicles and size reduction. Installation of 15 new electric car charging stations on VU campus.
- o Three projects involving solar generation: a partnership with TVA to install solar-powered electric car charging stations, an array of solar thin films at the power house as a part of the first Green Fund Project, and installation of four solar-powered electronics charging stations throughout campus as part of a Green Fund Project.
- o In 2014, Vanderbilt invested \$8 million in energy efficiency projects, such as lighting retrofits, chiller replacements, and even automatic ventilation/light setback systems in over 50 operating rooms in our medical center. Every project implemented has less than a 3 year payback and will save millions in energy costs and thousands of MTCO₂e in GHG emissions over the years.

Outdoor Air Quality

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has adopted policies or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources. Policies and/or guidelines may include, but are not limited to, prohibiting vehicle idling, restrictions on the use of powered lawn care equipment, and other strategies for minimizing mobile emissions.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for Part 1 of this credit as long as the policies apply to and are followed by the institution.

Part 2

Institution has completed an inventory of significant air emissions from stationary sources on campus. Significant emissions include nitrogen oxides (NO_x), sulfur oxides (SO_x), and other standard categories of air emissions identified in environmental permits held by the institution, international conventions, and/or national laws or regulations.

Submission Note:

VOCs: 8.6 Tons
SAM: 13.2 Tons

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

Does the institution have policies and/or guidelines in place to improve outdoor air quality and minimize air pollutant emissions from mobile sources?:

Yes

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

Vanderbilt University has a policy prohibiting Plant Operations vehicles from idling. Plant Operations' vehicles make up the majority of the "on campus fleet" and therefore are the most likely candidates to idle while on campus. Vanderbilt's campus is not driver friendly, has few roads that go through campus, and allows very few vehicles to drive on the campus aside from the Plant Operations vehicles.

Has the institution completed an inventory of significant air emissions from stationary sources on campus?:

Yes

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

Vanderbilt keeps a daily log of its fuel use and energy production and utilizes EPA’s AP-42 emission factors to determine the institution’s annual air emissions. Vanderbilt also generates an annual comprehensive Greenhouse Gas Inventory by utilizing EPA emission factors and tools provided by Clean Air-Cool Planet’s Campus Carbon Calculator.

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

	Weight of Emissions
Nitrogen oxides (NOx)	533.20 <i>Tons</i>
Sulfur oxides (SOx)	1,039.20 <i>Tons</i>
Carbon monoxide (CO)	186 <i>Tons</i>
Particulate matter (PM)	42.70 <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	0 <i>Tons</i>

A brief description of the institution’s initiatives to minimize air pollutant emissions from stationary sources, including efforts made during the previous three years:

Vanderbilt University currently has an on-campus co-generation, natural gas-fueled power plant which produces 23% of our electricity and 100% of our steam servicing 15.3 million square feet of space. This steam is then used for 90% of campus heating and 40% of campus cooling. This cogeneration process is very efficient: heat, which would otherwise be a wasted byproduct of electricity and steam generation, is used to produce more steam and hot water. The remaining 77% of electricity consumed at Vanderbilt is purchased directly from Nashville Electric Service from Tennessee Valley Authority (TVA).

In Fall 2013, Vanderbilt University began the conversion of its co-generation power plant from dually fueled with coal and gas fuel to fueled by only-natural gas. On November 19, 2014, the plant burned its last load of coal. The power plant, which now runs on 100% natural gas will continue to meet the power needs of the University and Medical Center, but in a more environmentally sustainable way. This conversion will increase operational efficiency, reduce greenhouse gas emissions, air pollutant emissions and noise pollution, and eliminate associated fuel use and emissions from trucking coal to the power plant.

Environmental impact improvements.

The environmental benefits of the conversion are significant. Greenhouse gas emissions—the carbon footprint of the power plant—will go down by as much as 40 percent. The conversion will also decrease the emission of particulate matter by more than 50 percent and virtually eliminates emissions of mercury, hydrogen chloride, sulfur dioxide and other air pollutants.

Operationally, converting to natural gas will make the plant more efficient, require far less maintenance and be more reliable.

Additionally, it will be better able to meet stricter EPA regulations. Coal no longer has to be trucked into campus daily, reducing both transportation emissions and noise pollution, and ash waste will no longer be created.

Vanderbilt also has removed emergency generators, downsized the University's fleet of vehicles, added all-electric vehicles to the fleet, and invested \$8 million in energy efficiency projects in 2014.

The website URL where information about the institution's outdoor air quality policies, guidelines or inventory is available:

Buildings

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

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

Building Operations and Maintenance

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution owns and operates buildings that are:

1) Certified under a green building rating system for existing buildings, e.g. LEED® for Existing Buildings: Operations & Maintenance (O&M)

And/or

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

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

Submission Note:

LEED Certification Levels (had an issue with above table format):

Certified: 452,268.0

Silver: 212,300.0

Gold: 596,347.0

Platinum: 0

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

Does the institution have any building space certified under the following green building rating systems for existing buildings?:

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

LEED for Existing Buildings or another 4-tier rating system used by an Established Green Building Council (GBC)	Yes
The DGNB system, Green Star Performance, or another 3-tier GBC rating system	No
BREEAM-In Use, CASBEE for Existing Building, or another 5-tier GBC rating system	No
Other non-GBC rating systems (e.g. BOMA BEST, Green Globes)	No

A brief description of the green building rating system(s) used and/or a list or sample of certified buildings and ratings:

LEED

Total floor area of eligible building space (operations and maintenance):

5,031,372 Square Feet

Floor area of building space that is certified at each level under a 4-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	<i>452,268 Square Feet</i>
3rd Highest Level (e.g. LEED Silver)	<i>212,300 Square Feet</i>
2nd Highest Level (e.g. LEED Gold)	<i>854,634 Square Feet</i>
Highest Achievable Level (e.g. LEED Platinum)	<i>0 Square Feet</i>

Floor area of building space that is certified at each level under a 3-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---

Mid-Level	---
Highest Achievable Level	---

Floor area of building space that is certified at each level under a 5-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---
4th Highest Level	---
Mid-Level	---
2nd Highest Level	---
Highest Achievable Level	---

Floor area of building space that is certified at any level under other green building rating systems for existing buildings:

Floor area of building space that is maintained in accordance with formally adopted sustainable building operations and maintenance guidelines or policies, but NOT certified:

3,512,162 *Square Feet*

A copy of the sustainable building operations and maintenance guidelines or policies:

[Vanderbilt Buildings with LEED Certifications_1.pdf](#)

The date the guidelines or policies were formally adopted:

Jan. 1, 2001

A brief description of the sustainable building operations and maintenance program and/or a list or sample of buildings covered:

Buildings in this program are cleaned with Green Seal certified chemicals; step off mats are used at all entrances; Integrated Pest Management is employed; only paper products with at least 30% recycled content are used; and recycling is provided in all buildings.

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

guidelines and policies:

Both the Director of Operations and the SEMO Director periodically inspect buildings to ensure these practices are being continually implemented.

The website URL where information about the institution's certified buildings and/or sustainable operations and maintenance guidelines or policies is available:

http://cpc.vanderbilt.edu/sustainable_building.html

Building Design and Construction

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

1) Certified under a green building rating system for new construction and major renovations (e.g. the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, LEED for Healthcare, and/or LEED for Core and Shell Green Building Rating Systems)

2) Certified Living under the Living Building Challenge (LBC)

And/or

3) Designed and built in accordance with formally adopted green building guidelines and policies that cover all of the following topics:

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

Submission Note:

<http://studentorgs.vanderbilt.edu/vsg/records/resolutions/2011-2012-resolutions/>

<http://www.vanderbilt.edu/sustainvu/what-we-do/green-building/>

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

Does the institution have any building space certified under the following green building rating systems for new

construction and major renovations?:

	Yes or No
LEED or another 4-tier rating system used by an Established Green Building Council (GBC)	Yes
The DGNB system, Green Star, or another 3-tier GBC rating system	No
BREEAM, CASBEE, or another 5-tier GBC rating system	No
The Living Building Challenge	No
Other non-GBC rating systems (e.g. BOMA BESt, Green Globes)	No

A brief description of the green building rating system(s) used and/or a list of certified buildings and ratings:

LEED BD+C

Certified: Chef James Bistro, Vanderbilt One Hundred Oaks

Silver: Benson Hall, Crawford House, Gillette House, Sutherland House, Library Archives

Gold: Central Library, Commons Center, Hank Ingram House, Murray House, Stambaugh House, Commons Center 3rd Floor Buildout, VANTAGE Laboratories, Warren and Moore Colleges

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

5,031,372 *Square Feet*

Floor area of building space that is certified at each level under a 4-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	452,268 <i>Square Feet</i>
3rd Highest Level (e.g. LEED Silver)	212,300 <i>Square Feet</i>
2nd Highest Level (e.g. LEED Gold)	854,634 <i>Square Feet</i>
Highest Achievable Level (e.g. LEED Platinum)	0 <i>Square Feet</i>

Floor area of building space that is certified at each level under a 3-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---
Mid-Level	---
Highest Achievable Level	---

Floor area of building space that is certified at each level under a 5-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	---
4th Highest Level	---
Mid-Level	---
2nd Highest Level	---
Highest Achievable Level	---

Floor area of building space certified Living under the Living Building Challenge:

Floor area of building space that is certified at any level under other green building rating systems for new construction and major renovations:

Floor area of building space that was designed and constructed in accordance with green building policies or guidelines but NOT certified:

3,512,162 *Square Feet*

A copy of the guidelines or policies :

[VU Green Building Guidelines.pdf](#)

The date the guidelines or policies were adopted:

Aug. 1, 2011

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

A green building resolution was passed by Vanderbilt Student Government (VSG) in Fall 2011, which states that the student body will advocate for the pursuit of the USGBC LEED Silver Certification for all new projects exceeding \$5 million in cost and will encourage the university to attain the highest possible LEED certification in renovation and new building projects costing less than \$5 million.

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

Vanderbilt University's academic campus intends to build all new construction and major renovation projects over \$5 million to LEED certification standards because it ensures environmentally-responsible and efficient buildings that will last for years. As long-term owners, operators and maintainers of facilities on campus, it is in Vanderbilt's best interest from both an environmental and financial perspective to incorporate principles of green building into construction projects.

Buildings in compliance with the green building design and construction guidelines and policies are awarded LEED certification.

<http://www.usgbc.org/leed/rating-systems>

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

http://cpc.vanderbilt.edu/sustainable_building.html

Indoor Air Quality

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution has an indoor air quality (IAQ) management program that includes regular auditing or monitoring, a mechanism for occupants to register complaints, and action plans to implement any corrective measures required in response to audits, monitoring or complaints.

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

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

Floor area of building space covered by an indoor air quality (IAQ) management program that meets the criteria for this credit:

15,350,000 *Square Feet*

Gross floor area of building space:

15,350,000 *Square Feet*

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

Vanderbilt has an Indoor Air Quality (IAQ) management program, which consists of chemical, mold and moisture, and noise monitoring, through Vanderbilt's Environmental Health and Safety Department and their staff Certified Industrial Hygienists (CIHs). Spaces are evaluated with respect to indoor air quality on a routine and as requested basis.

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

<http://www.safety.vanderbilt.edu/osha/indoor-air-quality.php>

Dining Services

This subcategory seeks to recognize institutions that are supporting a sustainable food system. Modern industrial food production often has deleterious environmental and social impacts. Pesticides and fertilizers used in agriculture can contaminate ground and surface water and soil, which can in turn have potentially dangerous impacts on wildlife and human health. The production of animal-derived foods often subjects animals to inhumane treatment and animal products have a higher per-calorie environmental intensity than plant-based foods. Additionally, farm workers are often directly exposed to dangerous pesticides, subjected to harsh working conditions, and paid substandard wages. Furthermore, food is often transported long distance to institutions, producing greenhouse gas emissions and other pollution, as well as undermining the resiliency of local communities.

Institutions can use their purchasing power to require transparency from their distributors and find out where the food comes from, how it was produced, and how far it traveled. Institutions can use their food purchases to support their local economies; encourage safe, environmentally-friendly and humane farming methods; and help eliminate unsafe working conditions and alleviate poverty for farmers. These actions help reduce environmental impacts, preserve regional farmland, improve local food security, and support fair and resilient food systems.

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

Credit
Food and Beverage Purchasing
Low Impact Dining

Food and Beverage Purchasing

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

- Local and community-based

And/or

- Third party verified to be ecologically sound, fair and/or humane

Food and beverage purchases that meet both criteria listed above (e.g. local community-based products that are Certified Organic) should not be double-counted.

Local community- based products:

- Are sourced from local community-based producers (directly or through distributors)
- Contain raw ingredients (excluding water) that are third party verified and/or locally harvested and produced (e.g. bread made with Organic flour or local honey) and
- Exclude products from Concentrated Animal Feeding Operations (CAFOs), products that have minimal nutritional value (e.g. soda, chewing gum, candies made predominantly from sweeteners), and products from producers that have been convicted of one or more labor law violations within the previous three years

Products that are not local and community-based must be third party verified to count. Recognized third party standards and certifications for food and beverages are outlined in the [STARS Technical Manual](#). Institutions located outside the U.S. and Canada may use additional third party certifications to identify ecologically sound, fair and humane products, provided the certifications are reported in "Notes about this submission".

Part 1 of this credit includes food and beverage purchases for on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor (e.g. Aramark, Bon Appétit Management Company, Chartwells, Sodexo). On-site franchises, convenience stores, vending services, and concessions are excluded from Part 1.

Part 2

Institution's on-site franchises, convenience stores, vending services, and/or concessions purchase food and beverages that are third party verified and/or locally sourced (i.e. meet the criteria outlined in Part 1).

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

Percentage of dining services food and beverage expenditures that are local and community-based and/or third party verified:

15

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

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

- Eggs and chickens - Will McDonald (Hohenwald, TN)
- Beef - Gourmet Pastures (Springfield, TN)
- Milk - Hatcher Family Dairy (College Grove, TN)
- Cooking oils, spices, seasonings - ACH Foods (Memphis, TN)
- Breads and deli meats - Al Dente Catering (Nashville, TN)
- Baked goods – Bake Crafters Food Company (Collegedale, TN)
- Dairy – Better Maid Products (Memphis, TN)
- Local, organic, fair-trade coffee – Bongo Java (Nashville, TN)
- Beans and legumes – Bush Brothers (Knoxville, TN)
- Honey – Brush Creek Honey Farm (Lawrenceburg, TN)
- Rolls, buns, loaves of bread - Charpier Bakery (Nashville, TN)
- Frozen pops - Chili Pops (Nashville, TN)
- Country-cured ham – Clifty Farm Country Meats (Paris, TN)
- Natural, processed and imitation cheese products - Coffee Connexion (Lebanon, TN)
- Gourmet sweets - Colts Chocolates (Nashville, TN)
- Cakes - Creative Occasions (Nashville, TN)
- Organic vegetables - Delvin Farms (College Grove, TN)
- Organic fruits and vegetables - Destiny Produce (Forest Park, GA)
- Grass-finished beef, pastured poultry, pastured pork - Emerald Glen Farms (Munfordville, KY)
- Stone ground grits and cornmeal - Falls Mill Country Store (Belvidere, TN)
- Hot dogs, luncheon meats, bacon and ham products - Family Brands/Elm Hill Meats (Lenoir City, TN)
- Fresh seafood - Gulf Pride Seafood (Franklin, TN)
- Fruits and vegetables - IJ Company (Knoxville, TN)
- Breakfast foods - Jimmy Dean Foods (Newbern, TN)
- Little Debbie snack cakes and Sunbelt granola products - McKee Foods Corporations (Ooltewah, TN).
- Various grocery items - Mize Foods (Nashville, TN)
- Bell peppers, pimentos and sweet potatoes - Moody Dunbar (East Tennessee)
- Organic ice cream - Mountain Jim’s Ice Cream (Nashville, TN)
- Country sausage products - Odom’s Tennessee Pride (Madison, TN and Dickson, TN)
- Small batch chocolates - Olive and Sinclair Chocolates (Nashville, TN)
- Chicken products - Phoenix Foods (Nashville, TN)
- Frozen vegetables - Pictsweet Company (Bell, TN)
- Frozen specialty foods - Processed Food Corporation (Knoxville, TN)
- Breads - Provence Breads (Nashville, TN)
- Whole fresh and cured meats - S.R. Smith Meats (Nashville, TN)
- Southern sides, such as hushpuppies and fried okra - Savannah Food Company (Savannah, TN)
- Dry mixes, breading and batters - Shenandoah Mills (Lebanon, TN)

- Fresh and frozen baked goods - Specialty Breads, LLC (Lebanon, TN)
- Ham and ham products - Stevison Ham Company (Portland, TN)
- Breakfast sausages - Swaggerty Sausage (Kodak, TN)
- Flour mixes and dough - Taste Maker Food (Memphis, TN)
- Cheesecake – Tennessee Cheesecake (Mt Juliet, TN)
- Beef, veal and pork products – Travis Meats (Knoxville, TN)
- Sausage products – Wampler’s Farm Sausage (Lenoir City, TN)
- Pork, beef, chicken, fresh fruits, vegetables and herbs – West Wind Farms (Morgan County, TN)
- Natural, organic baked goods – Wild Muffin (Nashville, TN)

Does the institution wish to pursue Part 2 of this credit (food and beverage expenditures for on-site franchises, convenience stores, vending services, or concessions)?:

Yes

Percentage of on-site franchise, convenience store, vending services, and concessions food and beverage purchases that are local and community-based and/or third party verified:

15

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

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

- Eggs and chickens - Will McDonald (Hohenwald, TN)
- Beef - Gourmet Pastures (Springfield, TN)
- Milk - Hatcher Family Dairy (College Grove, TN)
- Cooking oils, spices, seasonings - ACH Foods (Memphis, TN)
- Breads and deli meats - Al Dente Catering (Nashville, TN)
- Baked goods – Bake Crafters Food Company (Collegedale, TN)
- Dairy – Better Maid Products (Memphis, TN)
- Local, organic, fair-trade coffee – Bongo Java (Nashville, TN)
- Beans and legumes – Bush Brothers (Knoxville, TN)
- Honey – Brush Creek Honey Farm (Lawrenceburg, TN)
- Rolls, buns, loaves of bread - Charpier Bakery (Nashville, TN)
- Frozen pops - Chili Pops (Nashville, TN)
- Country-cured ham – Clifty Farm Country Meats (Paris, TN)
- Natural, processed and imitation cheese products - Coffee Connexion (Lebanon, TN)
- Gourmet sweets - Colts Chocolates (Nashville, TN)
- Cakes - Creative Occasions (Nashville, TN)
- Organic vegetables - Delvin Farms (College Grove, TN)
- Organic fruits and vegetables - Destiny Produce (Forest Park, GA)
- Grass-finished beef, pastured poultry, pastured pork - Emerald Glen Farms (Munfordville, KY)
- Stone ground grits and cornmeal - Falls Mill Country Store (Belvidere, TN)

- Hot dogs, luncheon meats, bacon and ham products - Family Brands/Elm Hill Meats (Lenoir City, TN)
- Fresh seafood - Gulf Pride Seafood (Franklin, TN)
- Fruits and vegetables - IJ Company (Knoxville, TN)
- Breakfast foods - Jimmy Dean Foods (Newbern, TN)
- Little Debbie snack cakes and Sunbelt granola products - McKee Foods Corporations (Ooltewah, TN).
- Various grocery items - Mize Foods (Nashville, TN)
- Bell peppers, pimentos and sweet potatoes - Moody Dunbar (East Tennessee)
- Organic ice cream - Mountain Jim’s Ice Cream (Nashville, TN)
- Country sausage products - Odom’s Tennessee Pride (Madison, TN and Dickson, TN)
- Small batch chocolates - Olive and Sinclair Chocolates (Nashville, TN)
- Chicken products - Phoenix Foods (Nashville, TN)
- Frozen vegetables - Pictsweet Company (Bell, TN)
- Frozen specialty foods - Processed Food Corporation (Knoxville, TN)
- Breads - Provence Breads (Nashville, TN)
- Whole fresh and cured meats - S.R. Smith Meats (Nashville, TN)
- Southern sides, such as hushpuppies and fried okra - Savannah Food Company (Savannah, TN)
- Dry mixes, breading and batters - Shenandoah Mills (Lebanon, TN)
- Fresh and frozen baked goods - Specialty Breads, LLC (Lebanon, TN)
- Ham and ham products - Stevison Ham Company (Portland, TN)
- Breakfast sausages - Swaggerty Sausage (Kodak, TN)
- Flour mixes and dough - Taste Maker Food (Memphis, TN)
- Cheesecake – Tennessee Cheesecake (Mt Juliet, TN)
- Beef, veal and pork products – Travis Meats (Knoxville, TN)
- Sausage products – Wampler’s Farm Sausage (Lenoir City, TN)
- Pork, beef, chicken, fresh fruits, vegetables and herbs – West Wind Farms (Morgan County, TN)
- Natural, organic baked goods – Wild Muffin (Nashville, TN)

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

Dining employs a Sustainability Supervisor who is responsible for researching, implementing, and managing all of Dining’s green initiatives and participates in the planning and implementation of many campus-wide sustainability initiatives throughout the year. Vanderbilt Dining has established a Dining Advisory Committee, comprised of students and staff to address all aspects of dining on campus, including the procurement of sustainable foods. Wherever possible, efforts are made to provide seasonal, local, natural and organic foods.

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

Dining employs a Sustainability Supervisor who is responsible for researching, implementing, and managing all of Dining’s green initiatives and participates in the planning and implementation of many campus-wide sustainability initiatives throughout the year. Vanderbilt Dining has established a Dining Advisory Committee, comprised of students and staff to address all aspects of dining on campus, including the procurement of sustainable foods. Wherever possible, efforts are made to provide seasonal, local, natural and organic foods.

Total annual food and beverage expenditures:

Which of the following food service providers are present on campus and included in the total food and beverage expenditure figures?:

	Present?	Included?
Dining operations and catering services operated by the institution	Yes	---
Dining operations and catering services operated by a contractor	No	---
Franchises	No	---
Convenience stores	Yes	---
Vending services	No	---
Concessions	No	---

Has the institution achieved the following?:

	Yes or No
Fair Trade Campus, College or University status	No
Certification under the Green Seal Standard for Restaurants and Food Services (GS-46)	No
Marine Stewardship Council (MSC) certification	No
Signatory of the Real Food Campus Commitment (U.S.)	No

A brief description of other sustainable restaurant and food service standards that the institution's dining services operations are certified under:

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

<http://campusdining.vanderbilt.edu/about/eat-the-world-save-the-earth>

Low Impact Dining

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Conventionally produced animal products comprise less than 30 percent of the institution's total dining services food purchases.

Conventionally produced animal products include all food products that contain animal derived (i.e. meat, fish, egg, dairy) ingredients that have not been verified to be sustainably produced. Sustainably produced animal products have been either:

- Third party verified to be ecologically sound and/or humane (see *OP 6: Food and Beverage Purchasing*)

Or

- Verified by the institution to be both ecologically sound and humane (e.g. "Pasture Raised", "Grass Fed" or "Humanely Raised") through a relationship with a local producer

Part 2

Institution:

- Offers diverse, complete-protein vegan options at all meals in at least one dining facility on campus

And

- Provides labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items

This credit includes on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor. On-site franchises, convenience stores, vending machines, and concessions should be excluded to the extent feasible.

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

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

2.50

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

Dining employs a Sustainability Supervisor who is responsible for researching, implementing, and managing all of Dining's green initiatives and participates in the planning and implementation of many campus-wide sustainability initiatives throughout the year.

Vanderbilt Dining has established a Dining Advisory Committee, comprised of students and staff to address all aspects of dining on [Campus Sustainability Data Collector](#) | [AASHE](#)

campus, including the procurement of sustainable foods. Wherever possible, efforts are made to provide seasonal, local, natural and organic foods.

Does the institution offer diverse, complete-protein vegan dining options at all meals in at least one dining facility on campus?:

Yes

Does the institution provide labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items?:

Yes

Are the vegan options accessible to all members of the campus community?:

Yes

A brief description of the vegan dining program, including availability, sample menus, signage and any promotional activities (e.g. “Meatless Mondays”):

Vegetarian and vegan entrees are available at each meal at various Vanderbilt Dining locations. In November 2013, Vanderbilt Dining received an “B” on PETA2’s Vegan Report Card with a 94% student satisfaction rate. Vanderbilt Dining was recognized on this list for offering at least one vegan entrée at every meal, offering nondairy milk, labeling vegan entrees and desserts, including a vegan student on the dining advisory board, promoting vegan options and working with students to distribute vegan food.

<http://www.peta2.com/feature/vegan-college-ranking/college/vanderbilt-university/>

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

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

http://www.peta2.com/feature/vegan-college-ranking/college/vanderbilt-university

Annual dining services expenditures on food:

Annual dining services expenditures on conventionally produced animal products:

Annual dining services expenditures on sustainably produced animal products:

Energy

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

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

Credit
Building Energy Consumption
Clean and Renewable Energy

Building Energy Consumption

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

Part 2

Institution's annual building energy consumption is less than the minimum performance threshold of 28 Btu per gross square foot (2.6 Btu per gross square metre) of floor area per degree day.

Performance for Part 2 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

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

Total building energy consumption, all sources (transportation fuels excluded):

	Performance Year	Baseline Year
Total building energy consumption	3,324,296 <i>MMBtu</i>	3,747,555 <i>MMBtu</i>

Purchased electricity and steam:

	Performance Year	Baseline Year
Grid-purchased electricity	1,021,094 <i>MMBtu</i>	1,003,369 <i>MMBtu</i>
District steam/hot water	0 <i>MMBtu</i>	0 <i>MMBtu</i>

Gross floor area of building space::

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

Gross floor area	15,350,000 <i>Gross Square Feet</i>	13,186,242 <i>Gross Square Feet</i>
-------------------------	-------------------------------------	-------------------------------------

Floor area of energy intensive space, performance year::

	Floor Area
Laboratory space	417,062 <i>Square Feet</i>
Healthcare space	11,500,000 <i>Square Feet</i>
Other energy intensive space	

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

	Degree Days
Heating degree days	3,699
Cooling degree days	1,737

Source-site ratios::

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

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

	Start Date	End Date
Performance Year	Jan. 1, 2013	Dec. 31, 2013
Baseline Year	Jan. 1, 2005	Dec. 31, 2005

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

NA

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

Faculty, staff and students are encouraged to set their thermostats to 68 degrees F in the winter and 75 degrees F in the summer. During the summer and winter breaks, when most students and many staff are off campus, temperatures are centrally controlled by Plant Operations in order to keep energy usage down.

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

The renovation of Alumni Hall used LED “can” lights throughout the building. Many buildings on campus have recently undergone lighting retrofits that include LED lighting including: Hobbs Library of Human Development, Jesup Psychology, Home Economics, Kirkland Hall, Student Life Center, and Neely Auditorium. LED lights are also used in elevator cars (MR16s). Also, VU’s baseball indoor batting facility and the Currey Tennis Center use high bay LED lighting. Many outdoor walkway lights were replaced with LEDs this past year.

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

Vanderbilt uses ceiling and wall mounted light sensors throughout campus with different technologies including infrared, ultrasonic, and “dual technology” sensors. Light sensors are used for daylight harvesting in many locations and CO2 sensors are used in some meeting rooms.

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

Automatic shades are used on the windows in some buildings to increase or decrease the amount of light allowed into a space in order to better regulate temperatures.

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

NA

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

Vanderbilt University currently has an on-campus co-generation, natural gas-fueled power plant which produces 23% of our electricity and 100% of our steam servicing 15.35 million square feet of space. This steam is then used for 90% of campus heating and 40% of campus cooling. This cogeneration process is very efficient: heat, which would otherwise be a wasted byproduct of electricity and steam generation, is used to produce more steam and hot water. The remaining 77% of electricity consumed at Vanderbilt is purchased directly from Nashville Electric Service from Tennessee Valley Authority (TVA).

In Fall 2013, Vanderbilt University began the conversion of its co-generation power plant from dually fueled with coal and gas fuel to fueled by only-natural gas. On November 19, 2014, the plant burned its last load of coal. The power plant, which now runs on 100% natural gas will continue to meet the power needs of the University and Medical Center, but in a more environmentally sustainable way. This conversion will increase operational efficiency, reduce greenhouse gas emissions, air pollutant emissions and noise pollution, and eliminate associated fuel use and emissions from trucking coal to the power plant.

Environmental impact improvements:

The environmental benefits of the conversion are significant. Greenhouse gas emissions—the carbon footprint of the power plant—will go down by as much as 40 percent. The conversion will also decrease the emission of particulate matter by more than 50 percent and virtually eliminates emissions of mercury, hydrogen chloride, sulfur dioxide and other air pollutants.

Operationally, converting to natural gas will make the plant more efficient, require far less maintenance and be more reliable.

Additionally, it will be better able to meet stricter EPA regulations. Coal no longer has to be trucked into campus daily, reducing both transportation emissions and noise pollution, and ash waste will no longer be created.

Vanderbilt also has removed emergency generators, downsized the University’s fleet of vehicles, added all-electric vehicles to the fleet, and invested \$8 million in energy efficiency projects in 2014.

<http://www.vanderbilt.edu/sustainvu/2013/04/vu-power-plant-to-convert-to-all-natural-gas/>

<http://www.vanderbilt.edu/sustainvu/what-we-do/energy/power-plant-faq/>

http://news.vanderbilt.edu/2014/12/vanderbilt-power-plant-is-now-coal-free/?utm_source=myvuprev

http://news.vanderbilt.edu/2014/12/vanderbilt-power-plant-is-now-coal-free/?utm_source=myvupreview-2014-12-18

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

Vanderbilt invested over \$8 million in 2013 and 2014 in energy efficiency retrofits of existing buildings throughout campus. All projects had a payback of less than 3 years. Vanderbilt is also committed to installing more energy efficient systems and fixtures when replacement is needed for the older systems and fixtures. Buildings are also retrocommissioned periodically to reset the building systems to optimal energy efficiency standards. A team of individuals in Plant Operations is tasked with the systematic updates of buildings. Vanderbilt is currently retrocommissioning almost all medical center patient-care buildings as well as several Academic buildings.

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

All buildings on campus are submetered for electricity, natural gas, and steam. A program called EnergyVU, a new online energy dashboard for Vanderbilt, collects a new data point from the meters every five minutes for each building on campus. Vanderbilt Plant Operations launched this powerful tool during the summer of 2013, and it is now available to anyone on campus. Users can compare the energy use of a specific building over time or to a set of other buildings. Vanderbilt also has a dedicated Campus Energy Manager.

Additionally, each of the ten first-year residence halls have “Green Lights” screens which connect to Vanderbilt’s energy dashboard,

energyvu.vanderbilt.edu

, and alert the students and visitors of the energy usage of each building 24 hours a day. The “Green Lights” screens also notify students as to whether they are above or below their targeted energy usage for the day.

Energyvu.vanderbilt.edu

<http://www.vanderbilt.edu/sustainvu/2013/09/green-lights-program-will-monitor-commons%E2%80%99-energy-use/>

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

Vanderbilt is committed to installing more energy efficient systems and fixtures when replacement is needed for the older systems and fixtures. Through the Facility Renewal process, Vanderbilt plans to replace end-of-life building equipment and systems with up-to-date models. During this process, the Campus Energy Manager works with the Facility Renewal manager to ensure that the most energy efficient option for new equipment and systems is chosen.

When purchasing replacement appliances, equipment, and other systems, Vanderbilt's procurement policy requires a preference for equipment that has met Energy Star or E-PEAT certification, indicating the product has met strict energy efficiency guidelines as set by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).

<https://finance.vanderbilt.edu/procurement/about/Procurement-Policies-Procedures.pdf>

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

Reflective roofs are present on many buildings on campus to reduce the heat island effect. During the construction of The Martha Rivers Ingram Commons, much of the asphalt that previously covered the area was removed and grass and plantings were installed.

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

New vending machines installed on campus are generally Energy Star rated, are LED lit, and use less energy than older vending machines.

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

Currently five buildings on campus, Buttrick Hall, The Commons Center, Featheringill/Jacobs Hall, Studio Arts and MRB3 have night setback programs in place. These "night setback" automated control systems are saving between 15-25% of the energy usage of each of these buildings. Continued retrofits of existing buildings are planned as funds allow. Many other buildings have HVAC or lighting controls or occupancy sensors built in to dim or shut off lights during unoccupied periods of time.

Buttrick Hall – Building automation system adjustments, night temperature setbacks
Cole Hall – HVAC renovation
Jacobs / Featheringill Engineering – Building automation system adjustments
Law School – Lighting retrofit, building automation system and HVAC upgrades
McGill Hall – HVAC renovation
Memorial Gym – Lighting control
OGSM – Building automation system upgrade, lighting retrofit
Olin Hall – Building automation system upgrade, HVAC renovation
Rand Hall – Chiller replacement, Building automation system upgrade, HVAC renovation/re-commissioning
Sarratt – Chiller replacement, building automation system upgrade, HVAC re-commissioning
Studio Arts – Building automation system adjustments
Tennis Center – Lighting retrofit, lighting control
Tolman Hall – HVAC renovation
McTyeire Hall – Building automation system upgrade, chiller replacement
Heard Library – Lighting retrofit and control, HVAC renovations
Divinity School – Lighting retrofit and control
Jesup Building – Lighting retrofit and control
One Magnolia Circle – Steam and chilled water metering
Home Economics Building– Lighting retrofit
Payne Building – Lighting retrofit
Peabody Library – Lighting retrofit
Stevenson Center Chemistry – Building automation system upgrade
Commons Center – Building automation system re-commissioning, night setbacks
Kennedy – Building automation system upgrade, demand control ventilation
Wilson Hall – Air handling unit and chiller replacement, building automation system upgrade

Since 2007, these improvements have saved at least 12,513,500 kwh, 7,300 metric tons of greenhouse gas emissions, and \$1,260,000 in electricity/steam/chilled water costs.

Currently, Plant Operations has additional projects underway in the following buildings:

Stevenson Center Physics – Building automation system upgrade
One Magnolia Circle – Building automation system upgrade
Library Annex – Lighting retrofit

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

<http://www.vanderbilt.edu/sustainvu/what-we-do/energy/vu-main-campus-energy-efficiency-and-conservation-accomplishments/>

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

Option 1:

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

Option 2:

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

Option 3:

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

Option 4:

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

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

The following renewable systems are eligible for this credit:

- Concentrated solar thermal
- Geothermal systems that generate electricity
- Low-impact hydroelectric power
- Solar photovoltaic
- Wave and tidal power

- Wind

Biofuels from the following sources are eligible:

- Agricultural crops
- Agricultural waste
- Animal waste
- Landfill gas
- Untreated wood waste
- Other organic waste

Technologies that reduce the amount of energy used but do not generate renewable energy do not count for this credit. For example, daylighting, passive solar design, and ground-source heat pumps are not counted in this credit. The benefits of such strategies, as well as improved efficiencies achieved through using cogeneration technologies, are captured by *OP 1: Greenhouse Gas Emissions* and *OP 8: Building Energy Consumption*.

Transportation fuels, which are covered by *OP 1: Greenhouse Gas Emissions* and *OP 18: Campus Fleet*, are not included in this credit.

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

Clean and renewable energy from the following sources::

	Performance Year
Option 1: Clean and renewable electricity generated on-site during the performance year and for which the institution retains or has retired the associated environmental attributes	1.92 <i>MMBtu</i>
Option 2: Non-electric renewable energy generated on-site	129 <i>MMBtu</i>
Option 3: Clean and renewable electricity generated by off-site projects that the institution catalyzed and for which the institution retains or has retired the associated environmental attributes	37.33 <i>MMBtu</i>
Option 4: Purchased third-party certified RECs and similar renewable energy products (including renewable electricity purchased through a certified green power purchasing option)	4,603 <i>MMBtu</i>

Total energy consumption, performance year:

3,824,296 *MMBtu*

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

An 8.16-kilowatt flexible solar film, designed by Outpost Solar of Pulaski, TN, is installed on the coal silo of the Vanderbilt cogeneration power plant. The solar film was installed in October 2011.

The Smart Modal Area Recharge Terminal, or SMART station, is a solar-powered electric car charging station and can accommodate 10 electric vehicles (EVs) and is located on Vanderbilt's campus. The SMART station is a joint project of Vanderbilt, the Tennessee Valley Authority and the Electric Power Research Institute to collect data on the operation of a charging station as well as the integration of the station into the operation of a "smart" power grid. This data will inform the further development of Tennessee's electric vehicle infrastructure. The SMART station was opened in Fall 2012. The electricity produced by the SMART station goes directly back to the NES grid.

Four solar-powered charging stations were installed on campus in Spring 2012— a Solar Dok patio table and three walk-up Solstice units. Members of the Vanderbilt community can charge their electronics while outside, utilizing the batteries charged by solar power. The charging stations were a project of the Vanderbilt Green Fund, a collaborative venture of Plant Operations, the Office of the Dean of Students and Vanderbilt Student Government to fund utility conservation projects proposed by students and selected with student input. The power from these units goes directly into a battery used to power electronic devices.

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

The Alternative Energy Club operates a self-sufficient, sustainable, student-run biodiesel production system that converts local waste vegetable oil from campus dining facilities into environmentally responsible biodiesel fuel that can be used in any diesel-fueled engine. The fuel is currently used to power vehicles such as plant operations trucks and landscaping machinery as well as vans used for outdoor student recreation trips.

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

VU/MWS Renewable Energy Showcase - In collaboration with Nashville Metro Water Services (MWS), Vanderbilt University School of Engineering (VUSE) set up a wind-solar renewable energy site at the Love Hill in Nashville. The main purpose of this project is to examine the feasibility of alternative energy production through solar and wind facilities, and the expectation is that about of 30kWh of energy will be generated on a daily basis; 30kWh is the average daily consumption of electrical energy per household across the US, according to the US Energy Information Administration. Love Hill is one of the highest points in Nashville and the wind speeds atop the hill are suitable for wind power generation, especially during the windy months November through April. In the first phase of the project, a wind monitoring station was set up at Love Hill to measure and establish analytical models for energy production. Owing to the proximity of homes, and considering issues of neighborhood aesthetics and noise, only a modest 3kW turbine has been installed. The wind power is complemented by solar power of 4.8 kW capacity. The electricity produced at this site does not return directly to the Vanderbilt campus

A brief description of the RECs and/or similar renewable energy products:

Vanderbilt purchases 750 blocks per month of renewable energy through TVA's Green Power Switch Program. Vanderbilt University is the largest purchaser of green power through NES, the local electrical provider.

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

Grounds

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

Credit
Landscape Management
Biodiversity

Landscape Management

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution's grounds include areas that are managed at one or more of the following levels:

- 1) Managed in accordance with an Integrated Pest Management (IPM) Plan
- 2) Managed in accordance with a sustainable landscape management program

And/or

- 3) Organic, certified and/or protected

The level at which an area of grounds is managed may be determined as outlined in the table below:

Management Level	Standards and/or Certifications Required
1) IPM Plan	IPM plan calls for: <ul style="list-style-type: none">• Using least-toxic chemical pesticides,• Minimum use of chemicals, and• Use of chemicals only in targeted locations and only for targeted species

<p>2) Sustainable Landscape Management Program</p>	<p>The program includes formally adopted guidelines, policies and/or practices that cover all of the following:</p> <ul style="list-style-type: none"> • Integrated pest management (see above) • Plant stewardship - protecting and using existing vegetation (e.g. through the use of a tree care plan), using native and ecologically appropriate plants, and controlling and managing invasive species • Soil stewardship - organic soils management practices that restore and/or maintain a natural nutrient cycle and limit the use of inorganic fertilizers and chemicals • Use of environmentally preferable materials - utilizing reused, recycled and local and sustainably produced landscape materials • Hydrology and water use - restoring and/or maintaining the integrity of the natural hydrology by promoting water infiltration, minimizing or eliminating the use of potable water for irrigation, and protecting/restoring riparian, wetland, and shoreline habitats and lost streams • Materials management and waste minimization - composting and/or mulching waste from groundskeeping, including grass trimmings • Snow and ice management (if applicable) - implementing technologies or strategies to reduce the environmental impacts of snow and ice removal
<p>3) Organic, Certified and/or Protected</p>	<p>Protected areas and land that is:</p> <ul style="list-style-type: none"> • Maintained in accordance with an organic land care standard or sustainable landscape management program that has eliminated the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides in favor of ecologically preferable materials • Certified Organic • Certified under the Forest Stewardship Council (FSC) Forest Management standard • Certified under the Sustainable Sites Initiative™ (SITES™) and/or • Managed specifically for carbon sequestration (as documented in policies, land management plans or the equivalent)

Land that meets multiple criteria should not be double-counted. An area of grounds that does not meet the standards specified for a particular management level should be reported at the next appropriate level for which it does meet the standards. For example, a landscape management program that includes an IPM plan and meets some, but not all, of the other standards listed for a sustainable landscape management plan should be reported at level 1 (IPM Plan).

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

Figures required to calculate the total area of managed grounds::

	Area
Total campus area	<i>330 Acres</i>
Footprint of the institution's buildings	<i>89.72 Acres</i>
Area of undeveloped land, excluding any protected areas	<i>120.01 Acres</i>

Area of managed grounds that is::

	Area
Managed in accordance with an Integrated Pest Management (IPM) Plan	<i>0 Acres</i>
Managed in accordance with a sustainable landscape management program that includes an IPM plan and otherwise meets the criteria outlined	<i>120.01 Acres</i>
Managed organically, third party certified and/or protected	<i>0 Acres</i>

A copy of the IPM plan:

The IPM plan :

It is the policy of Vanderbilt to use Integrated Pest Management (IPM) as the strategy for control of pests in and around Vanderbilt facilities. IPM is a process for achieving long term, environmentally sound pest management through the use of a wide variety of technological and management practices. Chemical applications are not the first line of defense to control insects and rodents. Instead, we use a combination of mechanical, sanitation, and exclusion methods to alter habitat and remove things in the environment that would propagate a pest population.

<http://www.vanderbilt.edu/plantops/content.php?page=pest>

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

Vanderbilt grows about 2/3 of our annual flowers on-site in greenhouses. Perennials are split and transplanted as well. Annually, approximately 50 new trees are planted. Compost is made on-site using wood chips, leaves, grass clippings and plant materials and is then

utilized on campus. Compost tea is made and sprayed on lawn and flower areas. Mulch is placed around trees and perennial beds to reduce watering. Leaves are mulched in the fall to add organic matter to lawns, tree areas and perennial areas. Each winter we dig up all annual bulbs and store them to be replanted in the spring. The University uses artesian well irrigation and centralized irrigation to reduce watering and use less water resources.

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

Vanderbilt landscapers utilize plants that are native to the areas in which they are planted, taking into account how naturally wet or dry the soil is, the amount of sun an area gets daily, and how well the soil drains after rainfall. This allows the beds to require less maintenance and encourages healthier plants. For example, one of the Commons beds originally contained bearded iris, but the bed took on run off from a nearby building, so it always stayed wet. Bearded irises hate wet feet. Because iris is the flower mascot of The Commons, we instead used a native iris called Southern Flag which can grow in water. This planting is now thriving and doing well. Weeds are always present, but by mulching, hand pulling, using groundcover and minimal chemical use, weeds are controlled.

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

The Plant Operations Grounds Department at Vanderbilt collects leaf and landscaping waste from campus to compost at an on-site location, resulting in 132 tons of compost each year. The mature landscaping compost is later used to fertilize Vanderbilt grounds.

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

The Vanderbilt Plant Operations grounds department collects leaf and landscaping waste from campus to compost at an on-site location, resulting in 97 tons of compost each year. The mature landscaping compost is later used to fertilize Vanderbilt grounds, especially under trees. Pine straw mulch is used to help keep weeds down, retain moisture, add organic matter to the soil, and for aesthetics. Annual flower beds are fertilized & mulched by organic mushroom compost as well as compost tea that is made on campus. Leaves are mulched and placed in lawn areas and shrub/perennial areas.

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

Weeds are controlled on campus primarily through mulching and hand pulling, and chemicals are avoided whenever possible. Compost tea and composted landscape waste are used as primary fertilizer sources.

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

Permeable pavers are used to promote groundwater recharge. Plants that tolerate water well are used in locations that stay wet and those that tolerate less water are used in locations that are drier.

VU is in the process of installing a centralized irrigation system called the Rainbird IQ. Currently fourteen IQ controllers are installed: four on the Commons campus and ten on the Peabody campus, with additional controllers being installed at the new College Halls at Kissam, which will open in fall 2014. The IQ will use a weather station that measures several different parameters such as rainfall,

temperature, and historical ET (evapotranspiration).

The IQ has settings that monitor these parameters and adjust irrigation. For example, heat and humidity levels are higher in July and August, so by measuring the ET, the systems will adjust by adding more time to each zone for watering to compensate for the evaporation rate. In the past, staff would adjust the controller up ten to fifteen minutes. The IQ will be very precise, giving the plants the minutes based on the weather that is happening in real time, thus saving Vanderbilt water and money.

The IQ will also be equipped with a central rain gauge that we will default all controllers to off when a certain amount of rainfall is reached. The IQ is also equipped with a flow monitoring system which allows collect how much water is being used. The flow watch will also detect any breaks in the pipe that would prevent water from being wasted, by turning the system off and sending an alert. The IQ has the potential to save Vanderbilt millions of gallons of water per year.

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

Vanderbilt University utilizes snow blades, calcium chloride (“ice-melt”) pellets, rotary brooms, sand, shovels and front-end loaders for snow removal. Non-corrosive liquid ice-melt agent is used in limited quantities under specific circumstances.

<http://www.vanderbilt.edu/plantops/content.php?page=snowplan>

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

More than 200 tree species exist on Vanderbilt’s grounds, leading to the school’s recognition as an arboretum since 1988.

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

No

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

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

The institution conducts one or both of the following:

- An assessment to identify endangered and vulnerable species (including migratory species) with habitats on institution-owned or -managed land

And/or

- An assessment to identify environmentally sensitive areas on institution-owned or -managed land

The institution has plans or programs in place to protect or positively affect the species, habitats and/or environmentally sensitive areas identified.

Assessments conducted and programs adopted by other entities (e.g. government, university system, NGO) may count for this credit as long as the assessments and programs apply to and are followed by the institution.

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

Purchasing

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

Credit
Electronics Purchasing
Cleaning Products Purchasing
Office Paper Purchasing
Inclusive and Local Purchasing
Life Cycle Cost Analysis
Guidelines for Business Partners

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products. This can take the form of purchasing policies, guidelines, or directives.

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

Part 2

Institution purchases EPEAT registered products for desktop and notebook/laptop computers, displays, thin clients, televisions and imaging equipment.

This credit does not include servers, mobile devices such as tablets and smartphones, or specialized equipment for which no EPEAT certified products are available.

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

Does the institution have an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products?:

Yes

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

The electronics purchasing policy, directive, or guidelines :

8.16 Green Purchasing Program: In order to reduce the adverse environmental impact of our purchasing decisions and in accordance with the VU Environmental Commitment Statement Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. Green purchasing is the method wherein environmental and social considerations are taken into account with the price, availability and performance criteria that we use to make purchasing decisions.

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable

products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university's performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper certification or detailed information on environmental benefits, durability and recyclable properties.

Procurement Services has worked closely with the university's preferred office products, janitorial products, and laboratory products suppliers to provide more easily identified environmentally-preferable product selections. These products are readily identifiable in eProcurement and have been collected into special "green purchasing" catalogs that anyone can request.

A basic screen for environmentally-preferable products is to look for those that are reusable instead of disposable, recyclable, made with renewable energy, and contain a significant percentage of post-consumer waste recycled content. Additionally, third-party certification systems that indicate an environmentally-preferable product include:

1. "Energy Star": indicates a product has met strict energy efficiency guidelines as set by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).
2. "EPEAT": indicates electronics that are environmentally-preferable as determined by the EPA and Green Electronics Council.
3. "FSC-Certified": indicates products that have met the requirements of the Forest Stewardship Council (FSC) for responsible management of forest resources, such as office paper.
4. "SCS Recycled Content": indicates a product that has been certified for recycled content and meets the stringent EPS standard for providing a measurable and significant environmental benefit over typical products in the same category.
5. "CRI Green Label": Product certified by the Carpet and Rug Institute (CRI) to improve indoor air quality.
6. EPA Design for the Environment (DfE): EPA has screened each ingredient for potential human health and environmental effects and that-based on currently available information, EPA predictive models, and expert judgment-the product contains only those ingredients that pose the least concern among chemicals in their class.
7. "Green Seal certified": Products certified by Green Seal to meet environmentally-responsible design, manufacturing, packaging, and transportation requirements.

<https://finance.vanderbilt.edu/procurement/about/forms/Procurement%20Policies%20&%20Procedures>.

[pdf](#)

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

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university's performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper

certification or detailed information on environmental benefits, durability and recyclable properties

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

No

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

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

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

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

<https://finance.vanderbilt.edu/procurement/about/forms/Procurement%20Policies%20&%20Procedures.pdf>

Cleaning Products Purchasing

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has an institution-wide stated preference to purchase cleaning and janitorial products that are Green Seal™ or UL Environment (EcoLogo)™ certified and/or meet similar multi-criteria sustainability standards for cleaning and janitorial products. This can take the form of purchasing policies, guidelines, or directives.

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

Part 2

Institution's main cleaning or housekeeping department(s) and/or contractor(s) purchase Green Seal or UL Environment (EcoLogo) certified cleaning and janitorial products.

Cleaning and janitorial products include, at minimum:

- Cleaning/degreasing agents
 - General-purpose, bathroom, glass, and carpet cleaners
 - Biologically-active cleaning products (enzymatic and microbial products)
 - Floor-care products, e.g. floor finish and floor finish strippers
 - Hand cleaners
 - Sanitary paper products, e.g. toilet tissue, facial tissue, paper towels, napkins, and placemats
 - Plastic film products (e.g. garbage bags/liners)
 - Laundry care products including powder, liquid or pre-measured dosage laundry detergents, stain removers and dryer sheets
 - Specialty surface cleaning products and odor removers, including but not limited to: boat cleaning products; deck and outdoor furniture cleaning products; graffiti removers; metal cleaning products; motor vehicle (automotive/tire/wheel) cleaning products; motor vehicle windshield washing fluid; optical lens cleaning products; oven cleaning products; upholstery cleaning products; and other cleaning products sold for specific specialty uses
-

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

Does the institution have an institution-wide stated preference to purchase third party certified cleaning and janitorial products?:

Yes

A copy of the green cleaning product purchasing policy, directive, or guidelines:

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

A formalized written Green Housekeeping policy and training procedure is adhered to and utilized within all campus buildings. Examples of green cleaning practices and green cleaning products utilized include: extensive use of concentrated Green Seal-certified cleaning products wherever possible; installation and use of bulk-size (J-Fill) concentrate chemical dispensing systems to eliminate use of smaller consumer-sized containers; the collection and recycling of empty concentrate containers; “dry-cleaning” and proper maintenance of water free urinals; use of paper products (paper towels and facial and toilet tissue) containing at least 30% post-consumer recycled content; door matting; elimination of aerosol spray cans in favor of concentrates and pump-sprayers; and collection and recycling of aerosol cans as these cans are phased-out of inventory.

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

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university’s performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper certification or detailed information on environmental benefits, durability and recyclable properties.

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

Yes

Expenditures on Green Seal and/or UL Environment (EcoLogo) certified cleaning and janitorial products:

340,000 *US/Canadian \$*

Total expenditures on cleaning and janitorial products:

630,000 *US/Canadian \$*

Has the institution's main cleaning or housekeeping department(s) and/or contractor(s) adopted a Green Seal or ISSA certified low-impact, ecological (“green”) cleaning program?:

Yes

A brief description of the institution’s low-impact, ecological cleaning program:

A formalized written Green Housekeeping policy and training procedure is adhered to and utilized within all campus buildings. Examples of green cleaning practices and green cleaning products utilized include: extensive use of concentrated Green Seal-certified cleaning

products wherever possible; installation and use of bulk-size (J-Fill) concentrate chemical dispensing systems to eliminate use of smaller consumer-sized containers; the collection and recycling of empty concentrate containers; “dry-cleaning” and proper maintenance of water free urinals; use of paper products (paper towels and facial and toilet tissue) containing at least 30% post-consumer recycled content; door matting; elimination of aerosol spray cans in favor of concentrates and pump-sprayers; and collection and recycling of aerosol cans as these cans are phased-out of inventory.

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

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

8.16 Green Purchasing Program: In order to reduce the adverse environmental impact of our purchasing decisions and in accordance with the VU Environmental Commitment Statement Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. Green purchasing is the method wherein environmental and social considerations are taken into account with the price, availability and performance criteria that we use to make purchasing decisions.

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university’s performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper certification or detailed information on environmental benefits, durability and recyclable properties.

Procurement Services has worked closely with the university’s preferred office products, janitorial products, and laboratory products suppliers to provide more easily identified environmentally-preferable product selections. These products are readily identifiable in eProcurement and have been collected into special “green purchasing” catalogs that anyone can request.

A basic screen for environmentally-preferable products is to look for those that are reusable instead of disposable, recyclable, made with renewable energy, and contain a significant percentage of post-consumer waste recycled content. Additionally, third-party certification systems that indicate an environmentally-preferable product include:

1. “Energy Star”: indicates a product has met strict energy efficiency guidelines as set by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).
2. “EPEAT”: indicates electronics that are environmentally-preferable as determined by the EPA and Green Electronics Council.
3. “FSC-Certified”: indicates products that have met the requirements of the Forest Stewardship Council (FSC) for responsible management of forest resources, such as office paper.
4. “SCS Recycled Content”: indicates a product that has been certified for recycled content and meets the stringent EPS standard for providing a measurable and significant environmental benefit over typical products in the same category.
5. “CRI Green Label”: Product certified by the Carpet and Rug Institute (CRI) to improve indoor air quality.
6. EPA Design for the Environment (DfE): EPA has screened each ingredient for potential human health and environmental effects and that-based on currently available information, EPA predictive models, and expert judgment-the product contains only those ingredients that pose the least concern among chemicals in their class.
7. “Green Seal certified”: Products certified by Green Seal to meet environmentally-responsible design, manufacturing, packaging, and transportation requirements.

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

<https://finance.vanderbilt.edu/procurement/about/forms/Procurement%20Policies%20&%20Procedures.pdf>

Office Paper Purchasing

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has an institution-wide stated preference to purchase office paper that has recycled content, is certified by the Forest Stewardship Council (FSC), and/or is certified to meet similar multi-criteria sustainability standards for paper. This can take the form of purchasing policies, guidelines, or directives.

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

Part 2

Institution purchases office paper with post-consumer recycled, agricultural residue, and/or FSC certified content.

Submission Note:

An indication of whether the institution uses Forest Stewardship Council (FSC) certified printing services for its publications (in-house and/or external)

In 2012, Vanderbilt University Printing Services (VUPS) achieved the Forest Stewardship Council (FSC) chain-of-custody certification. Going forward, 99% of Vanderbilt's printed pieces will be FSC-certified. In addition to bearing the FSC label, each certified publication indicates the amount of recycled content it contains and marks the piece as recyclable. VUPS can now provide FSC-certified printed matter to any customer desiring their order to carry the well-known and respected certification mark. In addition to the FSC mark, customers are also offered the option to add the Rainforest Alliance mark to their FSC-certified jobs

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

Does the institution have an institution-wide stated preference to purchase office paper that has recycled content and/or is certified to meet multi-criteria sustainability standards for paper?:

Yes

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

The paper purchasing policy, directive or guidelines:

Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. If two products are competitive in performance characteristics and pricing, the university will favor the environmentally-preferable product or supplier.

<https://finance.vanderbilt.edu/procurement/procurement/green.shtml>

Sample text from RFP:

5.5 Environmental Sustainability Programs

5.5.1 Vanderbilt is committed to implementing environmentally sustainable programs including the purchase of “green” products whenever possible. The details of our university-wide initiative are available at:

<http://www.vanderbilt.edu/sustainvu/>

5.2.1 Please provide details on any current green initiatives you may have with other large customers that you would propose implementing at Vanderbilt. What tools or processes do you have at your disposal to help us identify opportunities to promote environmental sustainability?

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

Individual departments are responsible for purchasing their own paper products. However, Vanderbilt University strongly encourages students and employees to purchase paper products with at least 30% postconsumer recycled content through our primary office paper supply vendor. FSC certified paper is also available for purchase through American Paper and Twine as well as VU Printing Services. Many large university printing efforts are now printed on FSC-certified paper with post-consumer recycled content and vegetable-based inks. All standard business cards and letterhead ordered through Vanderbilt University’s Printing Services are printed on recycled stock. A green printing guidance document that advises Vanderbilt community members on green printing options such as paper that is FSC-certified, contains recycled-content, or is processed chlorine-free was developed in 2009-2010 by the Sustainability and Environmental Management Office, VU Printing Services, and VU Creative Services.

Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. If two products are competitive in performance characteristics and pricing, the university will favor the environmentally-preferable product or supplier.

<https://finance.vanderbilt.edu/procurement/procurement/green.shtml>

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

Yes

Expenditures on office paper with the following levels of post-consumer recycled, agricultural residue, and/or FSC

certified content::

	Expenditure Per Level
10-29 percent	113.05 <i>US/Canadian \$</i>
30-49 percent	86,711.73 <i>US/Canadian \$</i>
50-69 percent	32,890.48 <i>US/Canadian \$</i>
70-89 percent (or FSC Mix label)	0 <i>US/Canadian \$</i>
90-100 percent (or FSC Recycled label)	11,618.28 <i>US/Canadian \$</i>

Total expenditures on office paper :

859,506 *US/Canadian \$*

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

<https://finance.vanderbilt.edu/procurement/procurement/green.shtml>

Inclusive and Local Purchasing

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

Part 1

Institution has an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses.

Support could take the form of giving preference during RFP processes, conducting targeted outreach to these businesses about opportunities to work with the institution, and/or other efforts to increase purchases made from such businesses.

Part 2

Institution makes purchases from companies that include disadvantaged businesses, social enterprises and/or local community-based businesses.

Purchases that meet multiple criteria listed above should not be double counted. Food and beverage purchases, which are covered by *OP 6: Food and Beverage Purchasing* and *OP 7: Low Impact Dining*, are not included in this credit.

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

Does the institution have an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses?:

Yes

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

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

8.15 Supplier Diversity & Small Business Program

Vanderbilt University is committed to the principle of diversity and equal opportunity in all of its endeavors and applies this principle in its procurement activity with the objective of encouraging participation by qualified suppliers categorized as: small, disadvantaged, veteran, minority or women-owned enterprises. The university believes that strengthening and expanding its supplier base in these business classifications not only contribute to lowering our operational costs in providing education, research and patient care, but also improves the overall health of the greater business community within which we exist. It is a practice of the university to actively identify and solicit qualified small, disadvantaged, veteran, minority or women-owned businesses and to provide and promote equal opportunities for such suppliers within the university in order to promote supplier diversity.

In order to better meet the Supplier Diversity goals, Procurement Services coordinates the efforts of the university in the following ways:

1. Identifies the business classification of our suppliers at the time of their registration with Procurement Services.
2. Provides listings of small, disadvantaged, minority and women-owned businesses to the departments of the university.
3. Participates with local and regional minority purchasing organizations during seasonal opportunity fairs to not only share information regarding university projects, but also to identify potential new suppliers for participation in those projects.
4. Creates periodic reports to monitor the volume of business done with small, disadvantaged, veteran, minority and women-owned businesses and uses this information to assess and improve the effectiveness of our program.
5. Publishes information on Diversity Suppliers on the dedicated Diversity Program webpage VU Supplier Diversity Program
6. Coordinates and Sponsors an annual business diversity supplier fair.
7. Through these activities and the support of administrators throughout the university, Vanderbilt recognizes the economic and social benefits derived by promoting equal opportunity for the small, disadvantaged, veteran, minority or women-owned business community.

Does the institution wish to pursue Part 2 of this credit (inclusive and local expenditures)?:

No

The percentage of total purchases from disadvantaged businesses, social enterprises and/or local community-based businesses:

The website URL where information about the institution's inclusive and local purchasing policies and/or program is available:

<https://finance.vanderbilt.edu/procurement/about/Procurement-Policies-Procedures.pdf>

Life Cycle Cost Analysis

Criteria

Institution employs Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy- and water-using products and systems. Practices may include structuring RFPs so that vendors compete on the basis of lowest total cost of ownership (TCO) in addition to (or instead of) purchase price.

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

Guidelines for Business Partners

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution has and acts on policies, guidelines and/or agreements that set expectations about the social and environmental responsibility of its business partners. The policies, guidelines and/or agreements require new and/or existing vendors and contractors and/or franchisees to adhere to:

1) Minimum environmental standards and practices defined by the institution, for example as outlined by the institution's sustainability policies

And/or

2) Minimum standards and practices governing employee wages, benefits, working conditions and rights that are consistent with fundamental International Labor Organization (ILO) conventions.

All enterprises with employees on-site as part of regular campus operations (e.g. contractors and franchisees) and other standing and/or formal business relationships (e.g. regular vendors and contracted services) are included.

Businesses that produce and/or sell licensed articles bearing the institution's trademarked logo ("licensees") are not included. They are covered in *EN 15: Trademark Licensing*.

The credit acknowledges institutional engagement in selecting its business partners and guiding them toward sustainability. Policies, guidelines or practices of the businesses themselves do not count for this credit in the absence of institutional selection criteria and/or guidance. Requiring compliance with existing legislation does not count on its own, but may be included as part of broader requirements that meet the criteria outlined above.

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

Submission Note:

<https://finance.vanderbilt.edu/procurement/diversity/index.php>

https://finance.vanderbilt.edu/procurement/procurement/directory_new.php

How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum environmental standards?:

Some

How many of the institution's business partners are covered by policies, guidelines and/or agreements that require adherence to minimum standards governing employee wages, benefits, working conditions and rights?:

All

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

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

8.16 Green Purchasing Program

In order to reduce the adverse environmental impact of our purchasing decisions and in accordance with the VU Environmental Commitment Statement Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. Green purchasing is the method wherein environmental and social considerations are taken into account with the price, availability and performance criteria that we use to make purchasing decisions.

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university's performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper certification or detailed information on environmental benefits, durability and recyclable properties.

Procurement Services has worked closely with the university's preferred office products, janitorial products, and laboratory products suppliers to provide more easily identified environmentally-preferable product selections. These products are readily identifiable in eProcurement and have been collected into special "green purchasing" catalogs that anyone can request.

A basic screen for environmentally-preferable products is to look for those that are reusable instead of disposable, recyclable, made with renewable energy, and contain a significant percentage of post-consumer waste recycled content. Additionally, third-party certification systems that indicate an environmentally-preferable product include:

1. "Energy Star": indicates a product has met strict energy efficiency guidelines as set by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).
2. "EPEAT": indicates electronics that are environmentally-preferable as determined by the EPA and Green Electronics Council.
3. "FSC-Certified": indicates products that have met the requirements of the Forest Stewardship Council (FSC) for responsible management of forest resources, such as office paper.
4. "SCS Recycled Content": indicates a product that has been certified for recycled content and meets the stringent EPS standard for providing a measurable and significant environmental benefit over typical products in the same category.
5. "CRI Green Label": Product certified by the Carpet and Rug Institute (CRI) to improve indoor air quality.
6. EPA Design for the Environment (DfE): EPA has screened each ingredient for potential human health and environmental effects and that-based on currently available information, EPA predictive models, and expert judgment-the product contains only those ingredients

that pose the least concern among chemicals in their class.

7. “Green Seal certified”: Products certified by Green Seal to meet environmentally-responsible design, manufacturing, packaging, and transportation requirements.

8. “Sustainable Forestry Initiative (SFI) Certified”: indicates products that have met the requirements of the Sustainable Forestry Initiative that promotes sustainable forest management, improved forestry practices and responsible purchasing of forest products such as office paper.

A brief description of programs and strategies institution has implemented to ensure that the guidelines are followed, including a brief description of instances when the guidelines have changed purchasing behavior, if applicable:

Procurement Services is responsible for overseeing the commercial relationships between Vanderbilt University and our suppliers and insuring that all aspects of our relationships are held to the highest ethical and professional standards. Our suppliers contribute significantly to the ongoing success of Vanderbilt University and we in turn actively support our suppliers and help them achieve their objectives.

All vendors are assessed according to the following criteria: environmentally responsible practices including sourcing and transportation practices, the use of post-consumer content and cradle-to cradle product design and production. Vanderbilt’s Sustainability Director is involved in reviewing vendor proposals and choosing vendors for major contracts, such as office supplies, janitorial supplies, solid waste and recycling management, etc. Vanderbilt’s Procurement program offers numerous environmentally friendly products and product lines, which are designated as such to Procurement users. All LEED-certified buildings have environmental performance requirements in their procurement contracts for building materials and other equipment. Other areas not listed above that include environmental performance requirements in procurement contracts are: solid waste management, furniture, chemical supplies, lab supplies and equipment, and travel. Most recently during an RFP for an Integrated Pest Management (IPM) contract, preference was given to vendors who showed strong environmental standards. Procurement and Disbursement Services green website is available at

<http://www.vanderbilt.edu/procurement/procurement/green.shtml>

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

<https://finance.vanderbilt.edu/procurement/about/Procurement-Policies-Procedures.pdf>

Transportation

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

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

Credit
Campus Fleet
Student Commute Modal Split
Employee Commute Modal Split
Support for Sustainable Transportation

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution supports alternative fuel and power technology by including in its motorized vehicle fleet vehicles that are:

- A. Gasoline-electric hybrid
- B. Diesel-electric hybrid
- C. Plug-in hybrid
- D. 100 percent electric
- E. Fueled with Compressed Natural Gas (CNG)
- F. Hydrogen fueled
- G. Fueled with B20 or higher biofuel for more than 4 months of the year

And/or

H. Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year (e.g. fuel contains cooking oil recovered and recycled on campus or in the local community)

For this credit, the institution’s motorized fleet includes all cars, carts, trucks, tractors, buses and similar vehicles used for transporting people and/or goods, including both leased vehicles and vehicles that are institution-owned and operated. Heavy construction equipment (e.g. excavators and pavers), maintenance equipment (e.g. lawn-mowers and leaf blowers), and demonstration/test vehicles used for educational purposes are not included in this credit.

Vehicles that meet multiple criteria (e.g. hybrid vehicles fueled with biofuel) should not be double-counted.

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

Total number of vehicles in the institution’s fleet :

352

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

	Number of Vehicles

Gasoline-electric, non-plug-in hybrid	0
Diesel-electric, non-plug-in hybrid	0
Plug-in hybrid	0
100 percent electric	23
Fueled with compressed natural gas (CNG)	0
Hydrogen fueled	0
Fueled with B20 or higher biofuel for more than 4 months of the year	2
Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year	1

A brief description of the institution’s efforts to support alternative fuel and power technology in its motorized fleet:

Vanderbilt's biodiesel initiative supports vehicles on campus that can run on biofuel. The numerous charging stations, including the solar powered charging stations, for electric vehicles supports 100% electric vehicles on campus.

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

Student Commute Modal Split

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution's students commute to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, or a combination of these options.

Students who live on campus should be included in the calculation based on how they get to and from their classes.

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

Total percentage of students that use more sustainable commuting options:

85

The percentage of students that use each of the following modes as their primary means of transportation to get to and from campus::

	Percentage (0-100)
Commute with only the driver in the vehicle (excluding motorcycles and scooters)	15
Walk, bicycle, or use other non-motorized means	78
Vanpool or carpool	5
Take a campus shuttle or public transportation	2
Use a motorcycle, scooter or moped	0

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

Assumptions based on 2013 data provided by and VU Traffic and Parking regarding parking permits and bike registrations.

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

[Campus Sustainability Data Collector | AASHE](#)

Employee Commute Modal Split

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution's employees (faculty, staff, and administrators) get to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, telecommuting, or a combination of these options.

Employees who live on campus should be included in the calculation based on how they get to and from their workplace.

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

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

14

The percentage of the institution's employees that use each of the following modes as their primary means of transportation to and from campus::

	Percentage (0-100)
Commute with only the driver in the vehicle (excluding motorcycles and scooters)	86
Walk, bicycle, or use other non-motorized means	1
Vanpool or carpool	6
Take a campus shuttle or public transportation	7
Use a motorcycle, scooter or moped	---
Telecommute for 50 percent or more of their regular work hours	---

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

Assumptions based on 2013 data provided by VUMC Parking and Transportation Services and VU Traffic and Parking

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

<http://www.vanderbilt.edu/sustainvu/what-you-can-do/faculty/transportation/>

Support for Sustainable Transportation

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

The institution demonstrates its support for active (i.e. non-motorized) transportation on campus in one or more of the following ways:

Option A: Institution:

- Provides secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters. The storage, shower facilities and lockers are co-located in at least one building/location that is accessible to all commuters.
- Provides short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and makes long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable).
- Has a “complete streets” or bicycle accommodation policy (or adheres to a local community policy) and/or has a continuous network of dedicated bicycle and pedestrian paths and lanes that connects all occupied buildings and at least one inter-modal transportation node (i.e. transit stop or station)

And/or

- Has a bicycle-sharing program or participates in a local bicycle-sharing program

Option B: Institution is certified as a Bicycle Friendly University (at any level) by the League of American Bicyclists (U.S.) or under a similar third party certification for non-motorized transportation.

Part 2

Institution has implemented one or more of the following strategies to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting. The institution:

- Offers free or reduced price transit passes and/or operates a free campus shuttle for commuters. The transit passes may be offered by the institution itself, through the larger university system of which the institution is a part, or through a regional program provided by a government agency.
- Offers a guaranteed return trip (GRT) program to regular users of alternative modes of transportation
- Participates in a car/vanpool or ride sharing program and/or offers reduced parking fees or preferential parking for car/vanpoolers
- Participates in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization
- Has one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters
- Offers a telecommuting program for employees, either as a matter of policy or as standard practice
- Offers a condensed work week option for employees, either as a matter of policy or as standard practice
- Has incentives or programs to encourage employees to live close to campus

- Other strategies

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

Does the institution provide secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters?:

Yes

A brief description of the facilities for bicycle commuters:

Racks are located conveniently throughout Vanderbilt’s campus for parking of personal bicycles. Vanderbilt University Medical Center publishes a map (

<http://cpc-fis.vanderbilt.edu/pdf/BicycleRack.pdf>

) depicting the locations of bike racks and shower facilities throughout the main campus and Medical Center. Showers are available at the following locations:

- Student Recreation Center – Available to current members. Non-members can pay one day pass of \$10 for use of showers and facility.
- Dayani Center- available for Vanderbilt faculty & staff with Vanderbilt ID.
- Commons – available for Vanderbilt faculty & staff.
- Vanderbilt Orthopaedics Institute (VOI) Fitness Center – Available for current VOI members.
-

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/bicycle-options/>

Does the institution provide short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and make long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable)?:

Yes

A brief description of the bicycle parking and storage facilities:

Racks are located conveniently throughout Vanderbilt’s campus for parking of personal bicycles. Vanderbilt University Medical Center publishes a map depicting the locations of bike racks and shower facilities throughout the main campus and Medical Center.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/bicycle-options/>

Does the institution have a “complete streets” or bicycle accommodation policy (or adhere to a local community

policy) and/or have a continuous network of dedicated bicycle and pedestrian paths and lanes?:

Yes

A brief description of the bicycle/pedestrian policy and/or network:

Map (

<http://cpc-fis.vanderbilt.edu/pdf/BicycleRack.pdf>

) shows that all campus buildings are connected via walkways which are also bike-friendly.

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:

Re{cycle} is a Vanderbilt student run organization offering bicycle rentals by the day, semester or year. The program gives the students the ease of bicycle transportation without having to worry about storage and maintenance and encourages students to explore Nashville beyond Vanderbilt's borders.

<http://universityrecycle.com/>

Two bike-sharing programs are available near the Vanderbilt campus: a fee-based, automated kiosk system called Nashville B-Cycle, and Nashville GreenBikes, an easy-to-use bike-share program that gives residents and visitors a healthy, and decidedly different way to experience Nashville.

<http://nashville.bcycle.com/>

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

Is the institution certified as a Bicycle Friendly University by the League of American Bicyclists (U.S.) or under a similar third party certification covering non-motorized transportation?:

No

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

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

Yes

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

Vanderbilt's "Ride to Work" program fully subsidizes the cost for all Vanderbilt employees and graduate, professional, and medical students to ride the local mass transit buses to and from work each day. The program was launched in July of 2004, and ridership rates have steadily risen since. To ride for free, eligible individuals simply swipe their VU ID card as they board a Metro Transit Authority (MTA) bus going to and from work, and Vanderbilt will be charged for the ride.

The Regional Transportation Authority (RTA) Relax-and-Ride program and Vanderbilt Coach Service provide express bus route transportation between downtown Nashville and surrounding areas. Discount tickets are available for all Vanderbilt employees, medical, graduate, and professional students, and medical center volunteers who would like to take advantage of regional/inter-city bus service. Vanderbilt University provides up to a 60% discount for employees who wish to ride the commuter train, the Music City Star, which services communities east of downtown Nashville. A free shuttle bus service between the Nashville Riverfront Music City Star Terminal and Vanderbilt's campus coincides with train arrivals and departures.

Students are discouraged from bringing their vehicles to campus and are encouraged to take advantage of Vanderbilt Student Government (VSG) -sponsored shuttles (Airport Express, Commodore Express, Vandy Vans, and Commodore Cabs) and buses to campus and community locations. Undergraduate parking permits are limited and given out only to sophomores, juniors, and seniors.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/mass-transit/>

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

Yes

A brief description of the GRT program:

The Regional Transit Authority (RTA) subsidizes free emergency taxi fares (up to 8 rides per year per person) for carpool and vanpool members who are pre-registered in the program.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/mass-transit/>

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

Yes

A brief description of the carpool/vanpool program:

Vanderbilt has invested in its own ride match software system, which facilitates the identification of potential carpool and vanpool partners in the Vanderbilt community (anyone with a Vanderbilt email address). This program matches people from similar general locations who wish to share a ride to Vanderbilt.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/car-sharing-and-carpooling-option>

s/

Does the institution participate in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization?:

Yes

A brief description of the car sharing program:

Vanderbilt offers two membership-based car sharing programs (Zipcar and Enterprise CarShare).

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/car-sharing-and-carpooling-option>

s/

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:

Vanderbilt University has 15 charging stations on the academic portion of campus. Five are in garages and 10 are part of a Smart Modal Area Recharge Terminal, or SMART station. The SMART station is a joint project of Vanderbilt, the Tennessee Valley Authority and the Electric Power Research Institute to collect data on the operation of a charging station as well as the integration of the station into the operation of a “smart” power grid. This data will inform the further development of Tennessee’s electric vehicle infrastructure.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/electric-vehicle-charging-station>

s/

Does the institution offer a telecommuting program for employees as a matter of policy or as standard practice?:

Yes

A brief description of the telecommuting program:

Vanderbilt offers telecommuting options. Telecommuting allows a staff member to fulfill their primary job responsibilities at a location other than Vanderbilt. This arrangement must be approved by the administrator for the area and reviewed by the department's Employee Relations Representative.

<http://hr.vanderbilt.edu/policies/HR-023.php>

Does the institution offer a condensed work week option for employees as a matter of policy or as standard practice?:

Yes

A brief description of the condensed work week program:

Vanderbilt allows condensed work week options. Flexible work schedules include variable arrivals, four 10-hour shifts, three 12-hour shifts, etc. Work schedules are determined by the business needs of the work group and are managed accordingly.

<http://hr.vanderbilt.edu/policies/HR-023.php>

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

No

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

Does the institution have other incentives or programs to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting?:

Yes

A brief description of other sustainable transportation initiatives and programs:

Vanderbilt offers a variety of shuttles made available to students to reduce the need for students to bring their vehicles to campus. These shuttles run on routes to the airport and local stores during various times of the year.

<http://www.vanderbilt.edu/sustainvu/what-we-do/transportation/student-shuttle-and-cab-options/>

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

[Campus Sustainability Data Collector | AASHE](#)

Waste

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

Credit
Waste Minimization
Waste Diversion
Construction and Demolition Waste Diversion
Hazardous Waste Management

Waste Minimization

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has implemented source reduction strategies to reduce the total amount of waste generated (materials diverted + materials disposed) per weighted campus user compared to a baseline.

Part 2

Institution's total annual waste generation (materials diverted and disposed) is less than the minimum performance threshold of 0.45 tons (0.41 tonnes) per weighted campus user.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

Total waste generation includes all materials that the institution discards, intends to discard or is required to discard (e.g. materials recycled, composted, donated, re-sold and disposed of as trash) except construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

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

Waste generated::

	Performance Year	Baseline Year
Materials recycled	10,394.70 Tons	154 Tons
Materials composted	132 Tons	0 Tons
Materials reused, donated or re-sold	83.80 Tons	0 Tons
Materials disposed in a solid waste landfill or incinerator	9,297 Tons	2,309 Tons

Figures needed to determine "Weighted Campus Users":

	Performance Year	Baseline Year
Number of residential students	6,083	6,210
Number of residential employees	19	7
Number of in-patient hospital beds	1,025	832
Full-time equivalent enrollment	12,110	11,037
Full-time equivalent of employees	24,161	19,437
Full-time equivalent of distance education students	0	0

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

	Start Date	End Date
Performance Year	Jan. 1, 2014	Dec. 31, 2014
Baseline Year	Jan. 1, 2005	Dec. 31, 2005

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

NA

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

Vanderbilt's waste and recycling vendor, Waste Management, Inc., conducts thorough waste audits periodically as part of their contract with the University.

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

In 2014, Procurement partnered with our office supply vendor to mandate that orders for many brand-name printer toner cartridges and various general office supplies are fulfilled with comparable re-manufactured toner cartridges. This supports Vanderbilt's ongoing efforts to lower costs while enhancing sustainability efforts by using recycled products.

Office supply orders require a \$25 minimum order. This change eliminates 988 pounds of shipping waste per quarter, further contributing to Vanderbilt's commitment to sustainability.

<http://www.vanderbilt.edu/sustainvu/2014/03/changes-made-to-vu-office-supply-procurement-policy>

[-promote-sustainability/](#)

Also in 2014, a new policy was implemented expanding the use of Cintas confidential paper collection bins to facilitate paper recycling. The Cintas collection bins now accept all paper (confidential and non-confidential). All paper securely collected from Cintas is immediately shredded, pulped and recycled.

<http://www.vanderbilt.edu/sustainvu/2014/06/improved-paper-recycling-options-through-partnershi>

[p-with-cintas-inc/](#)

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

Vanderbilt has a surplus department that collects discarded equipment, office furniture and other items for resale on campus. Vanderbilt also has an online "Vandy FreeSwap" initiative to allow students, faculty and staff the opportunity to give their items away to others on campus.

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

Vanderbilt course catalogs, schedules and directories are available online. Printed copies of the Undergraduate Catalog are available on request from the Office of Undergraduate Admissions. Catalogs of the Graduate School and post-baccalaureate professional schools of the university are available on request from the dean of the appropriate school.

<http://www.vanderbilt.edu/catalogs/undergrad/>

In 2009, Vanderbilt stopped automatically printing hard copies of the phone directory for all staff. The phone directory is now only available online through Vanderbilt People Finder.

<https://phonedirectory.vanderbilt.edu/cdb/>

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

VUprint, Vanderbilt's pay-for-print service, is designed to provide convenient, cost-effective and sustainable public access printing to students, faculty, staff and eligible guests at a variety of locations across campus. All public access printers in libraries, most computer labs and common areas use this system. Most libraries on campus are set to default double-sided printing.

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

Vanderbilt has a robust move-in and move-out waste reduction strategy. During move-in, extra recycling bins are placed around campus and in addition to normal recycling collections, cardboard, plastic film, packing materials, and molded Styrofoam are also collected. Water bottles have been completely eliminated during move-in activities in favor of eco-friendly, recyclable cups and large coolers of water placed around campus. In 2014, 37.26 tons of cardboard were recycled, which represents a 5.31% increase over 2013 and a 453.64% increase since 2007, as well as 2 large box trucks of plastic film, Styrofoam and packing materials. Collection of cardboard at Move-In over the past seven years has resulted nearly one-quarter of a million pounds of cardboard recycled, which has saved over 29,000 cubic feet of landfill space.

During Earth Friendly Move Out, Vanderbilt's Office of Housing and Residential Education (OHARE) sets up donation locations across campus benefitting a variety of non-profit charities. Students can donate many items, including clothing and old textbooks, at any of these locations or post them on Vandy FreeSwap. In addition to donating, there are many convenient locations for recycling common items on campus. Electronics, tablets, computers and appliances, such as refrigerators, can be placed in the specially designated areas outdoors around the residence halls that are set up only during move out. For ink and toner cartridges, batteries, and pens, markers and mechanical pencils, recycling is available year round at the Sarratt and Commons Center main desks. Battery recycling is also available at all Reeve desks. Click here for a map of these locations. For more traditional recycling items such as plastic, paper (including textbooks), aluminum and flattened cardboard, students are encouraged to use the residential recycling areas located next to their dumpsters rather than throwing items away. Vanderbilt also has award-winning recycling videos, here, which instruct students on how to properly recycle items from their residence halls.

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

A scrap metal collection program was implemented in 2014. Last year, 333 tons of scrap metal was recycled. Also in 2014, Vanderbilt donated 35 tons of wood chips to the TN State Parks Department to be used on walking paths. The wood chips resulted from downed tree limbs and debris on campus.

A brief description of any food waste audits employed by the institution:

Vanderbilt chefs and management team work very hard to ensure that there is as little waste as possible. This is accomplished by analyzing sales figures, by time of day, day of the week, month, previous trends, peak business hours, etc. Waste is eliminated on the front end by effectively managing our food purchases. When there is leftover food, it is donated to Second Harvest Food Bank.

For the past two years, Vanderbilt has donated 2 truckloads of strawberries leftover from the annual Strawberries and Champagne commencement event to the Nashville zoo animals as well as rescued native wildlife at Walden's Puddle.

<http://www.vanderbilt.edu/sustainvu/2013/05/commencement-strawberries/>

A brief description of any programs and/or practices to track and reduce pre-consumer food waste in the form of kitchen food waste, prep waste and spoilage:

Vanderbilt chefs and management team work very hard to ensure that there is as little waste as possible. This is accomplished by analyzing sales figures, by time of day, day of the week, month, previous trends, peak business hours, etc. Waste is eliminated on the front end by effectively managing our food purchases. When there is leftover food, it is donated to Second Harvest Food Bank.

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

Vanderbilt chefs and management team work very hard to ensure that there is as little waste as possible. This is accomplished by analyzing sales figures, by time of day, day of the week, month, previous trends, peak business hours, etc. Waste is eliminated on the front end by effectively managing our food purchases. When there is leftover food, it is donated to Second Harvest Food Bank. Students also have the opportunity to pick up a coin instead of one or more of their side items included in the meal plan. The coins collected are traded for canned food items which are donated to Second Harvest Food Bank.

<http://news.vanderbilt.edu/2012/04/share-a-side/>

Vanderbilt has two main dining locations on campus. The Commons Center dining hall uses only hard china for meals. No takeaway options are available at that location.

For the past two years, Vanderbilt has donated 2 truckloads of strawberries leftover from the annual Strawberries and Champagne commencement event to the Nashville zoo animals as well as rescued native wildlife at Walden's Puddle.

<http://www.vanderbilt.edu/sustainvu/2013/05/commencement-strawberries/>

A brief description of the institution's provision of reusable and/or third party certified compostable to-go containers for to-go food and beverage items (in conjunction with a composting program):

The Commons Center dining hall uses only hard china for meals. No takeaway options are available at that location. The Rand dining hall utilizes hard china for eat-in meals and compostable service ware for takeaways.

A brief description of the institution's provision of reusable service ware for "dine in" meals and reusable and/or third party certified compostable service ware for to-go meals (in conjunction with a composting program):

Vanderbilt has two main dining locations on campus. The Commons Center dining hall uses only hard china for meals. No takeaway options are available at that location. The Rand dining hall utilizes hard china for eat-in meals and compostable service ware for takeaways.

A brief description of any discounts offered to customers who use reusable containers (e.g. mugs) instead of disposable or compostable containers in to-go food service operations:

NA

A brief description of other dining services waste minimization programs and initiatives:

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

<http://www.vanderbilt.edu/sustainvu/what-we-do/waste-and-recycling/>

Waste Diversion

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

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

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

This credit does not include construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

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

Materials diverted from the solid waste landfill or incinerator:

10,394.70 Tons

Materials disposed in a solid waste landfill or incinerator :

9,297 Tons

A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate, including efforts made during the previous three years:

The Department of Plant Operations is operationally responsible for the University's Recycling Program, providing building recycling services to academic campus staff, students, and residents and managing a community recycling initiative at special events such as athletic games, move-in and move-out. Vanderbilt also has recycling programs for coal ash, computers and electronics, fluorescent light bulbs, batteries, ink and toner cartridges, confidential paper, and pens and mechanical pencils.

Vanderbilt has 2 full-time recycling coordinators, 3 full-time recycling technicians, and 9 student recycling workers. VU has a central recycling center and additional outdoor recycling facilities for the collection of traditional materials. Several improvements implemented within the past two years have helped Vanderbilt double recycling levels, including:

- Expansion of recycling to plastics #3-7 instead of just #1-2, which includes such items as hard plastic labware, food storage containers and clamshell food containers;
 - Expansion of solid waste recycling at VUMC into Vanderbilt Medical Group areas in the Vanderbilt Clinic and Medical Center East;
 - Expansion of scrap metal recycling on main campus;
 - Expansion of cardboard recycling infrastructure on main campus and the installation of new cardboard dumpsters at Branscomb, Carmichael Towers and the Chestnut facility as well as a cardboard compactor at Rand/Sarratt;
 - Expansion of recycling efforts at Student Move-In through improved collaboration with Students Promoting Environmental Awareness and Responsibility (SPEAR) to successfully recycle 35 tons of cardboard, an 8.3% increase in cardboard recycling from the prior year;
- and

- Improved collaboration with student groups, Vanderbilt Athletics, and Waste Management, Inc., at home football games to collect plastic, aluminum cans and cardboard from fans during tailgating
- Implementation of the new Vanderbilt Athletics Sustainability Challenge.

For the past two years, Vanderbilt has donated 2 truckloads of strawberries leftover from the annual Strawberries and Champagne commencement event to the Nashville zoo animals as well as rescued native wildlife at Walden’s Puddle.

In October 2014, Vanderbilt donated 35 tons, or 5 dump truck loads, of tree limb waste that resulted from a severe weather event to a local state park that was chipped and turned into mulch to use on their walkways and paths.

In Move-In 2014, Vanderbilt broke the previous year’s record for Move-In recycling, collecting 37 tons of cardboard, which represents an 5.3% increase over last year and a 425.71% increase since 2007. Collection of cardboard at Move-In over the past seven years has resulted nearly one-quarter of a million pounds of cardboard recycled, which has saved over 29,000 cubic feet of landfill space!

Composting: Vanderbilt University has two composting operations on campus: the Commons Center Demonstration Site and the Natchez Triangle leaf and landscaping waste compost pile. The Plant Operations Grounds Department at Vanderbilt collects leaf and landscaping waste from campus to compost at an on-site location, resulting in 132 tons of compost in 2014. The mature landscaping compost is later used to fertilize Vanderbilt grounds. Due to Vanderbilt’s location within the metropolitan Nashville area, the university is not permitted to compost food waste a scale larger than “backyard-size”, only landscaping waste. Metropolitan Nashville health department regulations require institutions who want to compost food waste to use an industrial compost facility.

Vandy FreeSwap: Vandy FreeSwap is a forum for the Vanderbilt community to post and browse items are otherwise unwanted instead of disposing of them in a landfill.

Vanderbilt Dining chefs and management team work very hard to ensure that there is as little waste as possible. This is accomplished by analyzing sales figures, by time of day, day of the week, month, previous trends, peak business hours, etc.

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

Leftover food is donated to Second Harvest Food Bank.

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

The Commons Center demonstration site composts pre-consumer food waste on a small scale to be used for demonstrations and class projects. Compost is then reused on bushes and trees in the area

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

Does the institution include the following materials in its waste diversion efforts?:

	Yes or No
Paper, plastics, glass, metals, and other recyclable containers	Yes

Food donations	Yes
Food for animals	Yes
Food composting	No
Cooking oil	Yes
Plant materials composting	Yes
Animal bedding composting	No
Batteries	Yes
Light bulbs	Yes
Toner/ink-jet cartridges	Yes
White goods (i.e. appliances)	Yes
Laboratory equipment	Yes
Furniture	Yes
Residence hall move-in/move-out waste	Yes
Scrap metal	Yes
Pallets	Yes
Motor oil	Yes
Tires	Yes

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

coal ash

Construction and Demolition Waste Diversion

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

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:

14,064.98 *Tons*

Construction and demolition materials landfilled or incinerated :

2,806.68 *Tons*

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

All new construction and major renovation projects built on Vanderbilt's campus are designed to LEED standards and most pursue LEED certification. As part of the LEED certification process, minimal construction and demolition materials are allowed to be landfilled or incinerated. In addition, scrap metal is diverted from these sites and is recycled through Vanderbilt's scrap metal recycling program.

Hazardous Waste Management

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

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

Part 2

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students. Institution takes measures to ensure that the electronic waste is recycled responsibly, for example by using a recycler certified under the e-Stewards and/or R2 standards.

Submission Note:

<http://www.safety.vanderbilt.edu/waste/chemical-waste-disposal.php>

<http://www.safety.vanderbilt.edu/sustain/environmental-protection.php#universal>

<http://www.vanderbilt.edu/sustainvu/what-we-do/waste-and-recycling/computers-electronics/>

"---" 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:

Vanderbilt Environmental Health and Safety (VEHS) has implemented a Chemical Redistribution Program to redistribute unwanted, useable chemicals from one laboratory to another instead of disposing of them as hazardous waste. Laboratories should attempt to

substitute non-hazardous or less toxic materials into their processes and experiments whenever possible. Laboratories should periodically evaluate their chemical inventory and dispose of unwanted/obsolete chemicals and purchase only the quantity of chemicals required for specific projects. To the extent that it does not affect vital research or teaching, laboratories should modify experiments to decrease the quantity of hazardous chemicals used and generated. Spilled chemicals and the materials used to clean up the spills must be disposed of as hazardous waste. Labs use good housekeeping practices to minimize the likelihood of a spill, which can reduce the amount of hazardous waste generated.

Vanderbilt recycles coal ash waste product, created during the burning of coal in the on-campus, co-generation power plant, through an arrangement with a cement manufacturer in Chattanooga. Ash is an important feedstock for cement manufacturing. In 2014, Vanderbilt recycled 6,031 tons of coal ash. As of November 19, 2014, Vanderbilt no longer produces coal ash.

Universal Wastes are, by EPA definition, hazardous waste unless they are recycled. This category of recycled waste includes used batteries, pesticides, mercury-containing equipment (thermostats) and mercury-containing bulbs (lamps). Universal Wastes generated at Vanderbilt include electronic wastes and computers, lighting ballasts, mercury-containing thermostats and switches, mercury-containing bulbs, fluorescent bulbs, HID & LED bulbs, UV bulbs, projector bulbs, compact fluorescent bulbs (CFLs), lead-acid batteries, nickel-cadmium batteries, lithium ion batteries, nickel metal hydride batteries, alkaline batteries, and pesticides. In 2014, Vanderbilt recycled 83.8 tons of e-waste, 12.8 tons of batteries and ballasts, and 4 tons of used lamps.

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

Vanderbilt Environmental Health and Safety (VEHS) collects hazardous waste directly from laboratories, and hazardous waste such as aerosol cans, expired paint, etc. from operational areas. All hazardous wastes must be disposed of through the VEHS Hazardous Waste Collection Program. All universal wastes and e-wastes are recycled.

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

None

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

Personnel, including laboratory personnel, who use or store chemicals at Vanderbilt University, are required to maintain a chemical inventory for compliance with various safety and environmental regulations, and to provide critical information to responders during an emergency. To assist chemical users at Vanderbilt in meeting this requirement, VEHS provides Vanderbilt employees and students free access to the Chemtracker Chemical Inventory Management System. Authorized ChemTracker users have the ability to update chemical inventory information, prepare inventory reports, and obtain chemical safety information. Vanderbilt Environmental Health and Safety (VEHS) has implemented a Chemical Redistribution Program to redistribute unwanted, useable chemicals from one laboratory to another instead of disposing of them as hazardous waste.

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish all electronic waste generated by the institution?:

Yes

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish electronic waste generated by students?:

Yes

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

The Vanderbilt Electronics Recycling Program is a mechanism for recycling of equipment such as monitors, CPUs, keyboards, printers, fax machines, cell phones, tablets, mp3 players, and other electronic equipment such as TVs and microwaves. All electronic equipment will be accepted, regardless of its condition or brand. All parts of the electronics system will be accepted (laptops, printers, keyboards, CPU towers, cords, and monitors).

If the equipment is in good working condition, it will be redistributed, sold, or donated, if possible. If the equipment is unusable, it is shipped to an electronics recycling facility that disassembles or shreds the electronics, segregates the parts, and recycles the materials. In 2014, Vanderbilt recycled 83.8 tons of e-waste.

Universal Wastes are, by EPA definition, hazardous waste unless they are recycled. This category of recycled waste includes used batteries, pesticides, mercury-containing equipment (thermostats) and mercury-containing bulbs (lamps). Universal Wastes generated at Vanderbilt include electronic and computer waste (e-waste), lighting ballasts, mercury-containing thermostats and switches, mercury-containing bulbs, fluorescent bulbs, HID & LED bulbs, UV bulbs, projector bulbs, compact fluorescent bulbs (CFLs), lead-acid batteries, nickel-cadmium batteries, lithium ion batteries, nickel metal hydride batteries, alkaline batteries, and pesticides. In 2014, Vanderbilt recycled 16.8 tons of Universal Wastes

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

Vanderbilt recycles electronic waste via Managed Asset Recovery Services (MARS) in Huntsville, AL. MARS is a premier provider of Asset Recovery Services focused on environmentally sustainable processes, that meet or exceed EPA requirements for zero landfill operations. Vanderbilt personnel have personally inspected the MARS facilities and performed due diligence audits to ensure all compliance and worker safety standards are met.

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

<http://www.vanderbilt.edu/sustainvu/what-we-do/waste-and-recycling/>

Water

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

Credit
Water Use
Rainwater Management
Wastewater Management

Water Use

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution has reduced its potable water use per weighted campus user compared to a baseline.

Part 2

Institution has reduced its potable water use per gross square foot/metre of floor area compared to a baseline.

Part 3

Institution has reduced its total water use (potable + non-potable) per acre/hectare of vegetated grounds compared to a baseline.

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

Level of water risk for the institution's main campus:

Low to Medium

Total water use::

	Performance Year	Baseline Year
Total water use	465,588,252 Gallons	1,419,611,966 Gallons

Potable water use::

	Performance Year	Baseline Year
Potable water use	457,588,252 Gallons	1,369,611,966 Gallons

Figures needed to determine "Weighted Campus Users"::

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

Number of residential students	6,048	6,210
Number of residential employees	19	7
Number of in-patient hospital beds	1,019	832
Full-time equivalent enrollment	12,321	11,037
Full-time equivalent of employees	24,429	19,437
Full-time equivalent of distance education students	0	0

Gross floor area of building space::

	Performance Year	Baseline Year
Gross floor area	15,350,000 <i>Square Feet</i>	13,186,242 <i>Square Feet</i>

Area of vegetated grounds::

	Performance Year	Baseline Year
Vegetated grounds	120.01 <i>Acres</i>	120.01 <i>Acres</i>

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

	Start Date	End Date
Performance Year	July 1, 2013	June 30, 2014
Baseline Year	July 1, 2005	June 30, 2006

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

NA

Water recycled/reused on campus, performance year:

8,000,000 *Gallons*

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

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

200,000 gallons of condensate is collected from air handlers at The Commons Center and pumped into cooling towers at the on-campus chiller plant. 5 million gallons of condensate is collected in the same manner from MRB III and MRB IV. Cooling towers typically use treated, domestic water, and the colder this water is the more efficiently the building's air conditioning system can operate. Significant savings are seen particularly on hot, humid days, when the cooling system removes large amounts of condensation from the air. 2.8 million gallons of water is collected from underground tunnels and used to irrigate sports fields and lawns on campus.

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

Buildings are metered for water usage on a per-building basis for three residence halls. The remaining buildings on campus are metered based on the loop they are connected to and thus are not metered on a per-building basis.

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

In the 2013/2014 academic year, Vanderbilt retrofitted all 1,000 residence hall shower heads on campus to high-performance, low-flow models through a Green Fund project. This improvement will yield a savings of 28 million gallons of water annually.

Plumbing retrofits completed an additional 3,500 water-saving bathroom fixtures, conserving over 60 million gallons of water and saving over \$300,000 each year.

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

Campus Dining dishwashers reuse the hot water from the final rinse of a load of dishes for the initial rinse of incoming dirty dishes.

Plant Operations purchases WaterSense labeled faucets and showerheads for replacements as well as low-flow toilets and urinals.

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

Landscape irrigation systems are run at night to conserve water. Drought resistant and native plants are used around campus to reduce the need for additional irrigation. Mulch made from composted landscape waste is placed around trees and in planter beds to help the vegetation keep moisture in during the summer heat.

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

VU is in the process of installing a centralized irrigation system called the Rainbird IQ. Currently fourteen IQ controllers are installed: including installations at the recently built College Halls at Kissam and the newly renovated Alumni Hall, as well as other existing locations across campus. Additional controllers will be installed annually until all of campus is connected to the system. The IQ will use a

weather station that measures several different parameters such as rainfall, temperature, and historical ET (evapotranspiration).

The IQ has settings that monitor these parameters and adjust irrigation. For example, heat and humidity levels are higher in July and August, so by measuring the ET, the systems will adjust by adding more time to each zone for watering to compensate for the evaporation rate. In the past, staff would adjust the controller up ten to fifteen minutes. The IQ will be very precise, giving the plants the minutes based on the weather that is happening in real time, thus saving Vanderbilt water and money.

The IQ will also be equipped with a central rain gauge that we will default all controllers to off when a certain amount of rainfall is reached. The IQ is also equipped with a flow monitoring system which allows collect how much water is being used. The flow watch will also detect any breaks in the pipe that would prevent water from being wasted, by turning the system off and sending an alert. The IQ has the potential to save Vanderbilt millions of gallons of water per year.

The biggest benefits in this system are the water saving capabilities and the reduction in person hours spent traveling to and from each controller. It also allows for better control of the water usage with the weather sensing technology. This system will allow for quicker leak repair since alerts will be received almost immediately, rather than days later when someone notices the running water down the sidewalk.

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

Condensation recycling in MRB III, MRB IV, and The Commons Center takes water from the air and redirects it to the building's cooling towers rather than sending it down the drain. Cooling towers typically use treated, domestic water, and the colder this water is the more efficiently the building's air conditioning system can operate. Significant savings are seen particularly on hot, humid days, when the cooling system removes large amounts of condensation from the air. 2.8 million gallons of water is collected from underground tunnels and used to irrigate sports fields and lawns on campus.

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

<http://www.vanderbilt.edu/sustainvu/what-we-do/water/>

Rainwater Management

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Part 1

Institution uses Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects that increase paved surface area on campus or otherwise significantly change the campus grounds.

The policy, plan, and/or strategies cover the entire campus. While the specific strategies or practices adopted may vary depending on project type and location, this credit is reserved for institutions that mitigate rainwater runoff impacts consistently during new construction. Implementing a strategy or strategies for only one new development project is not sufficient for Part 1 of this credit.

Part 2

Institution has adopted a rainwater/stormwater management policy, plan, and/or strategies that mitigate the rainwater runoff impacts of ongoing campus operations and treat rainwater as a resource rather than as a waste product.

The policy, plan, and/or strategies address both the quantity and quality (or contamination level) of rainwater runoff through the use of green infrastructure. Though specific practices adopted may vary across the campus, the policy, plan, and/or strategies cover the entire institution. Implementing strategies for only one building or area of campus is not sufficient for Part 2 of this credit.

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

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

Does the institution use Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects?:

No

A brief description of the institution's Low Impact Development (LID) practices:

NA

Has the institution adopted a rainwater/stormwater management policy, plan, or strategies that mitigate the

rainwater runoff impacts of ongoing campus operations through the use of green infrastructure? :

Yes

A brief description of the institution’s rainwater/stormwater management policy, plan, and/or strategies for ongoing campus operations:

Vanderbilt University is subject to numerous government regulations that protect the environment. These regulations come not only from the federal government and the Environmental Protection Agency (EPA); environmental rules are also issued by the State of Tennessee and Metro Nashville.

VU manages all environmental compliance obligations through the implementation of an Environmental Management System (EMS). The EMS at Vanderbilt is used to gather baseline environmental data and helps ensure that critical tasks, such as monitoring and reporting required by environmental regulatory authorities, are performed in a timely manner. Through this centralized repository of environmental performance data and reports, VU can measure the effectiveness and efficiency of its environmental programs, establish objectives and targets, conduct continuous improvement of existing programs, and easily identify missing data and areas where there is room for improvement. Routine tasks and environmental monitoring data are all kept in one place, reports can be generated on pre-determined intervals, and environmental performance can be reported to the Vanderbilt Community. The Vanderbilt University EMS secure online database is administered by staff in the Sustainability and Environmental Management Office. VU’s EMS includes information for stormwater management, including a stormwater management plan and associated training. Vanderbilt receives a 20% reduction in our sewer fee as a result.

15 projects on Vanderbilt’s campus have received LEED certification at varying levels. All new construction strives to achieve LEED certification as well. These projects and the areas surrounding them adhere to the stormwater management requirements detailed in the LEED Rating System.

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

NA

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

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

NA

A brief description of any living or vegetated roofs on campus:

The Nursing School and MRB3 buildings are connected by a vegetated roof that is ground level and covered in grass.

A brief description of any porous (i.e. permeable) paving employed by the institution:

Pervious pavers are used at various locations on campus, including the LEED Certified Martha Ingrams Commons Center, Murray House, Hank Ingram House, Crawford House, Sutherland House, Stambaugh House, and the newly constructed College Halls at Kissam, [Campus Sustainability Data Collector](#) | [AASHE](#) Snapshot | Page 194

which opened fall 2014. All use pervious pavement to allow rainwater to pass through paving and recharge the groundwater, reducing the development's impact on neighboring streams.

A brief description of any downspout disconnection employed by the institution:

NA

A brief description of any rain gardens on campus:

NA

A brief description of any stormwater retention and/or detention ponds employed by the institution:

Vanderbilt has ten stormwater detention areas or water quality units located on campus. These locations improve the quality of stormwater prior to it leaving campus and also provide a controlled release of stormwater following large precipitation events. The stormwater detention locations are inspected, cleaned, and maintained on a regular basis as part of the campus preventive maintenance program.

A brief description of any bioswales on campus (vegetated, compost or stone):

Vegetated swales are used at various locations on campus to manage stormwater runoff from buildings including the Martha Ingram Commons campus for first-year students and the Student Life Center on Vanderbilt's main campus.

A brief description of any other rainwater management technologies or strategies employed by the institution:

Every attempt is made to preserve green space, vegetation, trees and other natural forms of stormwater management. Great care was taken to actually increase green vegetated space and reduce paved areas when the Ingram Commons first-year campus was designed and constructed in 2008 and when the new College Halls at Kissam, which opened fall 2014, were designed and constructed.

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

<http://www.safety.vanderbilt.edu/sustain/environmental-management-system.php>

Wastewater Management

Responsible Party

Tiffany Renfro

Sustainability Outreach Coordinator

Sustainability and Environmental Management Office (SEMO)

Criteria

Institution's wastewater is handled naturally on campus or in the local community. Natural wastewater systems include, but are not limited to, constructed treatment wetlands and Living Machines. To count, wastewater must be treated to secondary or tertiary standards prior to release to water bodies.

This credit recognizes natural handling of the water discharged by the institution. On-site recycling/reuse of greywater and/or blackwater is recognized in *OP 26: Water Use*.

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

Total wastewater discharged:

471,700,000 Gallons

Wastewater naturally handled:

0 Gallons

A brief description of the natural wastewater systems used to handle the institution's wastewater:

NA

The website URL where information about the institution's wastewater management practices is available:

Planning & Administration

Coordination, Planning & Governance

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging students, staff and faculty in governance. Staff and other resources help an institution organize, implement, and publicize sustainability initiatives. These resources provide the infrastructure that fosters sustainability within an institution. Sustainability planning affords an institution the opportunity to clarify its vision of a sustainable future, establish priorities and help guide budgeting and decision making. Strategic planning and internal stakeholder engagement in governance are important steps in making sustainability a campus priority and may help advocates implement changes to achieve sustainability goals.

Credit
Sustainability Coordination
Sustainability Planning
Governance

Sustainability Coordination

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution has at least one sustainability committee, office, and/or officer tasked by the administration or board of trustees to advise on and implement policies and programs related to sustainability on campus. The committee, office, and/or officer focus on sustainability broadly (i.e. not just one sustainability issue, such as climate change) and cover the entire institution.

An institution that has multiple committees, offices and/or staff with responsibility for subsets of the institution (e.g. schools or departments) may earn points for this credit if it has a mechanism for broad sustainability coordination for the entire campus (e.g. a coordinating committee or the equivalent). A committee, office, and/or officer that focuses on just one department or school within the institution does not count for this credit in the absence of institution-wide coordination.

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

Does the institution have at least one sustainability committee, office, and/or officer that focuses on sustainability broadly and covers the entire institution?:

Yes

A brief description of the activities and substantive accomplishments of the committee(s), office(s), and/or officer(s) during the previous three years:

- o One of only 21 universities nationwide named to the 2013 Princeton Review Green College Honor Roll and is included in the 2013 “Guide to 322 Green Colleges”;
- o Recognized as Tennessee Recycling Coalition’s 2014 “Recycler of the Year”;
- o Received recognition as Tennessee Recycling Coalition’s 2013-2014 “Video of the Year”;
- o Received an “A” rating in environmental and social intent and transparency from the Roberts Environmental Center;
- o Spent \$29 million over three years to convert the VU power plant to all natural gas fuel, eliminating coal use on campus on November 19, 2014;
- o Implemented \$8 million in energy efficiency retrofits to existing buildings;
- o Certified 15 projects under the environmental requirements of Leadership in Energy and Environmental Design (LEED) program;
- o Reduced overall greenhouse gas emissions by 17% from 2008 and by over 27% per person on campus since 2005.
- o Doubled traditional recycling volumes in two years from 3 million pounds in 2011 to 6 million pounds in 2013;
- o Saw Vanderbilt Printing Services achieve Forest Stewardship Council (FSC) Chain-of-Custody certification in 2012;
- o Composted 132 tons of landscaping and leaf waste annually, which is reused as mulch;
- o Retrofitted 3,500 bathroom fixtures to conserve over 60 million gallons of water annually, reducing VU’s water consumption by 40%
- o Organized 37 student volunteers each year to serve as Eco-Dore peer environmental educators for undergraduate residential students.
- o Received a “B” grade on the PETA2’s Vegam Report Card with a 94% student satisfaction rate.

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 Environmental Advisory Committee (EAC) serves in an advisory capacity to the university administration in creating a comprehensive environmental management program for Vanderbilt University. The committee will advise, develop and promote practices and policies that maximize environmental performance for institutional operations, research, academics and patient care and will assist in complying with all relevant laws and regulations as well as promoting and integrating sustainability, stewardship and resource conservation into activities and services. The environmental management and sustainability program will include a comprehensive environmental management system which will assess environmental impacts, develop and track measures of our progress and consider and recommend campus-wide short and long-term environmental goals.

Members of each committee, including affiliations and role (e.g. staff, student, or faculty):

- Dr. James Clarke – faculty – Civil and Environmental Engineering
- Dr. Roger Chalkley – faculty – VUMC Molecular Physiology and Biophysics
- Dr. Kathy Friedman – faculty – Biological Sciences
- Dr. Steve Goodbred – faculty – Earth and Environmental Sciences
- Dr. Ron Schrimpf – faculty – Electrical Engineering and Computer Sciences
- Dr. Douglas Fisher – faculty – Electrical Engineering and Computer Sciences
- Dr. Joe Bandy – faculty – Sociology and Center for Teaching
- Dr. David Raiford – faculty – VUMC Gastroenterology, Hepatology and Nutrition
- Chris Vanags – faculty – School for Science and Math at Vanderbilt
- Dr. Andrea George – staff – Sustainability and Environmental Management Office
- Steve Gild – staff – Sustainability and Environmental Management Office
- Donna DePasquale – staff – Office of Research, VUMC
- Ruth Nagareda – staff – VU Compliance Officer
- James Mathis – staff – VUMC Chief Clinical Enterprise Compliance Officer
- Judson Newbern – staff – Facilities and Environmental Affairs
- Mark Petty – staff – Plant Operations
- Ken Browning – staff- VUMC Facilities and Construction
- Kevin Warren – staff – Vanderbilt Environmental and Health Safety
- Robert Wheaton – staff – Vanderbilt Environmental and Health Safety

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

<http://www.safety.vanderbilt.edu/committees/env.php>

Does the institution have at least one sustainability office that includes more than 1 full-time equivalent (FTE) employee?:

Yes

A brief description of each sustainability office:

The Sustainability and Environmental Management Office (SEMO) was formed in January 2008 and is a collaborative venture between VEHS and VU Plant Operations department. SEMO's mission is to initiate, promote, coordinate, evaluate and encourage environmental management and sustainability initiatives that improve Vanderbilt's impact on the community and environment.

Full-time equivalent (FTE) of people employed in the sustainability office(s):

5

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

<http://www.vanderbilt.edu/sustainvu>

Does the institution have at least one sustainability officer?:

Yes

Name and title of each sustainability officer:

See below

A brief description of each sustainability officer position:

- Dr. Andrea George – Director, SEMO
 - Steve Gild – Environmental Management Systems Coordinator, SEMO
 - Chelsea Hamilton – Sustainability Outreach Coordinator, SEMO
 - Matthew Buckley – Campus Waste and Recycling Manager, SEMO
 - Dejan Stjepanovic - Assistant Campus Recycling Coordinator
-
- Director- SEMO's Director is responsible for development, management, and coordination of sustainability and environmental compliance programs across the academic campus and medical center. The director also plays a central role in strategic planning efforts to promote the long-term sustainability of the university.
 - Environmental Management Systems (EMS) Coordinator – The EMS Coordinator's primary responsibility is to gather and 'crunch' data related to Vanderbilt's sustainability initiatives, such as recycling, waste disposal, greenhouse gas emissions, fuel and energy use, alternative transportation use, and other sustainability metrics. Vanderbilt's EMS also keeps track of VU's compliance to environmental regulations issued by the Environmental Protection Agency (EPA) and the State of Tennessee.
 - Sustainability Outreach Coordinator – The Sustainability Outreach Coordinator is primarily responsible for sustainability outreach, awareness and education while also collaborating with the various sustainability and recycling programs managed and supported by SEMO.
 - Campus Recycling Manager – The Campus Recycling Manager is primarily responsible for the operational activities of the Vanderbilt University campus recycling program, including events and on-campus partnerships.
 - Assistant Campus Recycling Coordinator – The Assistant Campus Recycling Coordinator provides support to the campus recycling program by assisting with special events and athletics recycling and managing the student residential area recycling programs.

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

<http://www.vanderbilt.edu/sustainvu/who-we-are/meet-the-staff>

Sustainability Planning

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution has current and formal plans to advance sustainability. The plan(s) cover one or more of the following areas:

- Curriculum
- Research (or other scholarship appropriate for the institution)
- Campus Engagement
- Public Engagement
- Air & Climate
- Buildings
- Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- Diversity & Affordability
- Health, Wellbeing & Work
- Investment
- Other

The plan(s) may include measurable objectives with corresponding strategies and timeframes to achieve the objectives.

The criteria may be met by any combination of formally adopted plans, for example:

- Strategic plan or equivalent guiding document
- Campus master plan or physical campus plan
- Sustainability plan
- Climate action plan
- Human resources strategic plan
- Diversity plan

For institutions that are a part of a larger system, plans developed at the system level are eligible for this credit.

Does the institution have current and formal plans to advance sustainability in the following areas? Do the plans include measurable objectives?:

	Current and Formal Plans (Yes or No)	Measurable Objectives (Yes or No)
Curriculum	Yes	No
Research (or other scholarship)	No	No
Campus Engagement	Yes	No
Public Engagement	No	No
Air and Climate	Yes	Yes
Buildings	Yes	Yes
Dining Services/Food	Yes	No
Energy	Yes	Yes
Grounds	Yes	No
Purchasing	Yes	No
Transportation	No	No
Waste	Yes	Yes
Water	Yes	No
Diversity and Affordability	No	No
Health, Wellbeing and Work	No	No
Investment	No	No

Other

No

No

A brief description of the plan(s) to advance sustainability in Curriculum:

Undergraduate Program in Environmental and Sustainability Studies

The program was launched in 2012 after the development of a new minor in environmental and sustainability studies. This minor is focused on the humanities and social sciences, but it also includes exposure to the natural sciences. The minor in Earth and Environmental Sciences is also available for students who wish to pursue a more natural science-oriented curriculum.

The measurable objectives, strategies and timeframes included in the Curriculum plan(s):

Accountable parties, offices or departments for the Curriculum plan(s):

Department of Environmental and Sustainability Studies

A brief description of the plan(s) to advance sustainability in Research (or other scholarship):

The measurable objectives, strategies and timeframes included in the Research plan(s):

Accountable parties, offices or departments for the Research plan(s):

A brief description of the plan(s) to advance Campus Engagement around sustainability:

Vanderbilt University has a comprehensive Environmental Commitment Statement which was developed by over 300 members of Vanderbilt's faculty, staff, and student body and approved by the Faculty Senate, Vanderbilt Student Government, and the Chancellor's Office:

Vanderbilt University is a local and global community leader committed to environmental stewardship, protecting natural resources, and enhancing quality of life while maintaining academic, medical, social, and economic productivity. Through proactive education, research, and outreach, we strive to:

- o Develop and transfer knowledge, increase awareness, and promote lifelong learning about sustainability best practices for the benefit of stakeholders who comprise the Vanderbilt community (students, patients, faculty, staff, alumni, and visitors), as well as the broader Nashville, state, national, and global communities;
- o Achieve the highest standards of sustainability through a process of environmental responsibility and accountability at every level of

University activity; and

o Consistently implement, monitor, evaluate, and improve our process.

Vanderbilt University also has an Environmental Health and Safety Policy and Commitment Statement, both of which include a commitment to environmental stewardship and sustainability

(

<http://www.safety.vanderbilt.edu/committees/environmental-health-andsafety-policy.php>

and

<http://www.safety.vanderbilt.edu/committees/environmental-health-andsafety-commitment.php>

). Additionally, Vanderbilt's current Chancellor, Nicholas Zeppos, has included sustainability, particularly the conservation of energy and the environment, as one of his current priorities and targeted initiatives for the university (

<http://www.vanderbilt.edu/chancellor/initiatives/>

). Numerous individual departments and groups within the institution have also created their own sustainability goals and objectives.

The measurable objectives, strategies and timeframes included in the Campus Engagement plan:

Accountable parties, offices or departments for the Campus Engagement plan(s):

All departments on campus.

A brief description of the plan(s) to advance Public Engagement around sustainability:

The measurable objectives, strategies and timeframes included in the Public Engagement plan(s):

Accountable parties, offices or departments for the Public Engagement plan(s):

A brief description of the plan(s) to advance sustainability in Air and Climate:

To convert the VU Power Plant to all natural gas fuel by 2016, reducing GHG emissions by 20% and air pollutants by 70-100%

The measurable objectives, strategies and timeframes included in the Air and Climate plan(s):

Reduce GHG emissions by 20% and air pollutants by 70-100%

Accountable parties, offices or departments for the Air and Climate plan(s):

SEMO, Plant Operations

A brief description of the plan(s) to advance sustainability in Buildings:

Vanderbilt University's academic campus intends to build all new construction and major renovation projects to LEED certification standards because it ensures environmentally-responsible and efficient buildings that will last for years. As long-term owners, operators and maintainers of facilities on campus, it is in Vanderbilt's best interest from both an environmental and financial perspective to incorporate principles of green building into construction projects.

The measurable objectives, strategies and timeframes included in the Buildings plan(s):

A green building resolution was passed by Vanderbilt Student Government (VSG) in Fall 2011, which states that the student body will advocate for the pursuit of the USGBC LEED Silver Certification for all new projects exceeding \$5 million in cost and will encourage the university to attain the highest possible LEED certification in renovation and new building projects costing less than \$5 million.

Accountable parties, offices or departments for the Buildings plan(s):

Plant Operations, Campus Planning and Construction, Administration

A brief description of the plan(s) to advance sustainability in Dining Services/Food:

Dining employs a Sustainability Supervisor who is responsible for researching, implementing, and managing all of Dining's green initiatives and participates in the planning and implementation of many campus-wide sustainability initiatives throughout the year. Vanderbilt Dining has established a Dining Advisory Committee, comprised of students and staff to address all aspects of dining on campus, including the procurement of sustainable foods. Wherever possible, efforts are made to provide seasonal, local, natural and organic foods.

The measurable objectives, strategies and timeframes included in the Dining Services/Food plan(s):

Accountable parties, offices or departments for the Dining Services/Food plan(s):

Campus Dining

A brief description of the plan(s) to advance sustainability in Energy:

To implement \$8 million in energy efficient retrofits to existing buildings

The measurable objectives, strategies and timeframes included in the Energy plan(s):

To implement \$8 million in energy efficient retrofits to existing buildings;

Accountable parties, offices or departments for the Energy plan(s):

Plant Operations, Plant Services, SEMO

A brief description of the plan(s) to advance sustainability in Grounds:

It is the policy of Vanderbilt to use Integrated Pest Management (IPM) as the strategy for control of pests in and around Vanderbilt facilities. IPM is a process for achieving long term, environmentally sound pest management through the use of a wide variety of technological and management practices. Chemical applications are not the first line of defense to control insects and rodents. Instead, we use a combination of mechanical, sanitation, and exclusion methods to alter habitat and remove things in the environment that would propagate a pest population.

<http://www.vanderbilt.edu/plantops/content.php?page=pest>

The measurable objectives, strategies and timeframes included in the Grounds plan(s):

Accountable parties, offices or departments for the Grounds plan(s):

A brief description of the plan(s) to advance sustainability in Purchasing:

Green Purchasing Program: In order to reduce the adverse environmental impact of our purchasing decisions and in accordance with the VU Environmental Commitment Statement Vanderbilt University is committed to purchasing goods and services from manufacturers and suppliers who share our environmental concern and commitment. Green purchasing is the method wherein environmental and social considerations are taken into account with the price, availability and performance criteria that we use to make purchasing decisions.

Environmentally-preferable products have a reduced effect on human health and the environment when compared to other products and companies that serve the same purpose. It is the preference of Vanderbilt University that our suppliers use environmentally-preferable products, materials, and sources wherever economically feasible. If two products are competitive in performance characteristics and pricing, the university will favor the more environmentally-preferable product or company.

The university and the supplier may negotiate during the contract term to permit the substitution or addition of environmentally-preferable products when such products are readily available at a competitive cost and satisfy the university's performance needs. If a supplier is citing environmentally preferable product claims, the supplier must be able to provide proper certification or detailed information on environmental benefits, durability and recyclable properties.

Procurement Services has worked closely with the university's preferred office products, janitorial products, and laboratory products suppliers to provide more easily identified environmentally-preferable product selections. These products are readily identifiable in eProcurement and have been collected into special "green purchasing" catalogs that anyone can request.

A basic screen for environmentally-preferable products is to look for those that are reusable instead of disposable, recyclable, made with renewable energy, and contain a significant percentage of post-consumer waste recycled content. Additionally, third-party certification systems that indicate an environmentally-preferable product include:

1. "Energy Star": indicates a product has met strict energy efficiency guidelines as set by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).
2. "EPEAT": indicates electronics that are environmentally-preferable as determined by the EPA and Green Electronics Council.
3. "FSC-Certified": indicates products that have met the requirements of the Forest Stewardship Council (FSC) for responsible management of forest resources, such as office paper.
4. "SCS Recycled Content": indicates a product that has been certified for recycled content and meets the stringent EPS standard for providing a measurable and significant environmental benefit over typical products in the same category.
5. "CRI Green Label": Product certified by the Carpet and Rug Institute (CRI) to improve indoor air quality.
6. EPA Design for the Environment (DfE): EPA has screened each ingredient for potential human health and environmental effects and that-based on currently available information, EPA predictive models, and expert judgment-the product contains only those ingredients that pose the least concern among chemicals in their class.
7. "Green Seal certified": Products certified by Green Seal to meet environmentally-responsible design, manufacturing, packaging, and transportation requirements.

[https://finance.vanderbilt.edu/procurement/about/forms/Procurement%20Policies%20&%20Procedures.](https://finance.vanderbilt.edu/procurement/about/forms/Procurement%20Policies%20&%20Procedures.pdf)

pdf

The measurable objectives, strategies and timeframes included in the Purchasing plan(s):

Accountable parties, offices or departments for the Purchasing plan(s):

Vanderbilt Procurement

A brief description of the plan(s) to advance sustainability in Transportation:

The measurable objectives, strategies and timeframes included in the Transportation plan(s):

Accountable parties, offices or departments for the Transportation plan(s):

A brief description of the plan(s) to advance sustainability in Waste:

To increase recycling values by 10% in 2014, 2015, and 2016; To fully comply with metro Nashville's cardboard ban by the end of FY 2014.

The measurable objectives, strategies and timeframes included in the Waste plan(s):

To increase recycling values by 10% in 2014, 2015, and 2016

Accountable parties, offices or departments for the Waste plan(s):

Vanderbilt Sustainability and Environmental Management Office (SEMO), Plant Operations and Plant Services.

A brief description of the plan(s) to advance sustainability in Water:

Vanderbilt is currently in the process of retrofitting bathroom fixtures to conserve over 60 million gallons of water annually, reducing VU's water consumption by 40%

The measurable objectives, strategies and timeframes included in the Water plan(s):

Accountable parties, offices or departments for the Water plan(s):

A brief description of the plan(s) to advance Diversity and Affordability:

The measurable objectives, strategies and timeframes included in the Diversity and Affordability plan(s):

Accountable parties, offices or departments for the Diversity and Affordability plan(s):

A brief description of the plan(s) to advance sustainability in Health, Wellbeing and Work:

The measurable objectives, strategies and timeframes included in the Health, Wellbeing and Work plan(s):

Accountable parties, offices or departments for the Health, Wellbeing and Work plan(s):

A brief description of the plan(s) to advance sustainability in Investment:

The measurable objectives, strategies and timeframes included in the Investment plan(s):

Accountable parties, offices or departments for the Investment plan(s):

A brief description of the plan(s) to advance sustainability in other areas:

The measurable objectives, strategies and timeframes included in the other plan(s):

Accountable parties, offices or departments for the other plan(s):

The institution's definition of sustainability:

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

Yes

A brief description of how the institution's strategic plan or equivalent guiding document addresses sustainability:

Vanderbilt University has a comprehensive Environmental Commitment Statement which was developed by over 300 members of Vanderbilt's faculty, staff, and student body and approved by the Faculty Senate, Vanderbilt Student Government, and the Chancellor's Office (

<http://www.vanderbilt.edu/sustainvu/who-we-are/environmental-commitment-statement/>

). Vanderbilt University also has an Environmental Health and Safety Policy and Commitment Statement, both of which include a commitment to environmental stewardship and sustainability (

<http://www.safety.vanderbilt.edu/committees/environmental-health-and-safety-policy.php>

and

<http://www.safety.vanderbilt.edu/committees/environmental-health-and-safety-commitment.php>

). Additionally, Vanderbilt's current Chancellor, Nicholas Zeppos, has included sustainability, particularly the conservation of energy and the environment, as one of his current priorities and targeted initiatives for the university (

<http://www.vanderbilt.edu/chancellor/initiatives/>

). Numerous individual departments and groups within the institution have also created their own sustainability goals and objectives.

Additionally, VU's publically available annual GHG has a goal of continuous reduction of GHG emissions year to year. The report can be accessed at

<http://www.vanderbilt.edu/sustainvu/what-we-do/greenhouse-gases/>

.

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

<http://www.vanderbilt.edu/sustainvu/who-we-are/environmental-commitment-statement>

Governance

Criteria

Part 1

Institution's students participate in governance in one or more of the following ways:

A. All enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one student representative on the institution's governing body. To count, student representatives must be elected by their peers or appointed by a representative student body or organization.

And/or

C. Students have a formal role in decision-making in regard to one or more of the following:

- Establishing organizational mission, vision, and/or goals
- Establishing new policies, programs, or initiatives
- Strategic and long-term planning
- Existing or prospective physical resources
- Budgeting, staffing and financial planning
- Communications processes and transparency practices
- Prioritization of programs and projects

Part 2

Institution's staff participate in governance in one or more of the following ways:

A. All staff members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one non-supervisory staff representative on the institution's governing body. To count, staff representatives must be elected by their peers or appointed by a representative staff body or organization.

And/or

C. Non-supervisory staff have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Part 3

Institution's faculty participate in governance in one or more of the following ways:

A. All faculty members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)

B. There is at least one teaching or research faculty representative on the institution's governing body. To count, faculty representatives must be elected by their peers or appointed by a representative faculty body or organization.

And/or

C. Faculty have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Participatory or shared governance bodies, structures and/or mechanisms may be managed by the institution (e.g. committees, councils, senates), by stakeholder groups (e.g. student, faculty and staff committees/organizations), or jointly (e.g. union/management structures).

Structures or mechanisms adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as they apply and are adhered to by the institution.

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

Diversity & Affordability

This subcategory seeks to recognize institutions that are working to advance diversity and affordability on campus. In order to build a sustainable society, diverse groups will need to be able to come together and work collaboratively to address sustainability challenges. Members of racial and ethnic minority groups and immigrant, indigenous and low-income communities tend to suffer disproportionate exposure to environmental problems. This environmental injustice happens as a result of unequal and segregated or isolated communities. To achieve environmental and social justice, society must work to address discrimination and promote equality. The historical legacy and persistence of discrimination based on racial, gender, religious, and other differences makes a proactive approach to promoting a culture of inclusiveness an important component of creating an equitable society. Higher education opens doors to opportunities that can help create a more equitable world, and those doors must be open through affordable programs accessible to all regardless of race, gender, religion, socio-economic status and other differences. In addition, a diverse student body, faculty, and staff provide rich resources for learning and collaboration.

Credit
Diversity and Equity Coordination
Assessing Diversity and Equity
Support for Underrepresented Groups
Support for Future Faculty Diversity
Affordability and Access

Diversity and Equity Coordination

Criteria

Part 1

Institution has a diversity and equity committee, office and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus. The committee, office and/or officer focuses on student and/or employee diversity and equity.

Part 2

Institution makes cultural competence trainings and activities available to all members of one or more of the following groups:

- Students
- Staff
- Faculty
- Administrators

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

Assessing Diversity and Equity

Criteria

Institution assesses diversity and equity on campus and uses the results to guide policy, programs, and initiatives. The assessment(s) address one or more of the following areas:

1. **Campus climate**, e.g. through a survey or series of surveys to gather information about the attitudes, perceptions and experiences of campus stakeholders and underrepresented groups
2. **Student diversity and educational equity**, e.g. through analysis of institutional data on diversity and equity by program and level, comparisons between graduation and retention rates for diverse groups, and comparisons of student diversity to the diversity of the communities being served by the institution
3. **Employee diversity and employment equity**, e.g. through analysis of institutional data on diversity and equity by job level and classification, and comparisons between broad workforce diversity, faculty diversity, management diversity and the diversity of the communities being served by the institution
4. **Governance and public engagement**, e.g. by assessing access to and participation in governance on the part of underrepresented groups and women, the centrality of diversity and equity in planning and mission statements, and diversity and equity in public engagement efforts

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

Support for Underrepresented Groups

Criteria

Part 1

Institution has mentoring, counseling, peer support, academic support, or other programs in place to support underrepresented groups on campus.

This credit excludes programs to help build a diverse faculty throughout higher education, which are covered in *PA 7: Support for Future Faculty Diversity*.

Part 2

Institution has a discrimination response policy, program and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime.

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

Support for Future Faculty Diversity

Criteria

Institution administers and/or participates in a program or programs to help build a diverse faculty throughout higher education.

Such programs could take any of the following forms:

- Teaching fellowships or other programs to support terminal degree students from underrepresented groups in gaining teaching experience. (The terminal degree students may be enrolled at another institution.)
- Mentoring, financial, and/or other support programs to prepare and encourage undergraduate or other non-terminal degree students from underrepresented groups to pursue further education and careers as faculty members.
- Mentoring, financial, and/or other support programs for doctoral and post-doctoral students from underrepresented groups.

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

Affordability and Access

Criteria

Part 1

Institution has policies and programs in place to make it accessible and affordable to low-income students and/or to support non-traditional students. Such policies and programs may include, but are not limited to, the following:

- Policies and programs to minimize the cost of attendance for low-income students
- Programs to equip the institution's faculty and staff to better serve students from low-income backgrounds
- Programs to prepare students from low-income backgrounds for higher education (e.g. U.S. federal TRIO programs)
- Scholarships provided specifically for low-income students
- Programs to guide parents of low-income students through the higher education experience
- Targeted outreach to recruit students from low-income backgrounds
- Scholarships provided specifically for part-time students
- An on-site child care facility, a partnership with a local facility, and/or subsidies or financial support to help meet the child care needs of students

Part 2

Institution is accessible and affordable to low-income students as demonstrated by one or more of the following indicators:

- A. The percentage of entering students that are low-income
- B. The graduation/success rate for low-income students
- C. The percentage of student financial need met, on average
- D. The percentage of students graduating with no interest-bearing student loan debt

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

Health, Wellbeing & Work

This subcategory seeks to recognize institutions that have incorporated sustainability into their human resources programs and policies. An institution's people define its character and capacity to perform; and so, an institution's achievements can only be as strong as its community. An institution can bolster the strength of its community by making fair and responsible investments in its human capital. Such investments include offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers and acting to protect and positively affect the health, safety and wellbeing of the campus community. Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital.

Credit
Employee Compensation
Assessing Employee Satisfaction
Wellness Program
Workplace Health and Safety

Employee Compensation

Criteria

Part 1

Institution's employees and/or the employees of its on-site contractors are covered by sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements.

A sustainable compensation (or "living wage") standard, guideline or policy is one that addresses wages and benefits in terms of the ability of employees to meet basic needs. For example, a sustainable compensation policy may index hourly wages to a poverty guideline or to local cost-of-living indicators. A labor market survey, salary survey or similar assessment may be used in conjunction with a basic needs/cost-of-living approach, but is not sufficient on its own to count as a sustainable compensation policy.

Part 2

Institution's employees and/or the employees of its on-site contractors receive sustainable compensation.

To earn points for Part 2 of this credit, an institution must assess employee compensation against one or more of the following:

1. A sustainable compensation standard developed or adopted by a committee with multi-stakeholder representation (i.e. its membership includes faculty, staff, and students and may include Human Resources administrators or other parties). The standard need not be formally adopted by the institution.
2. A sustainable compensation standard that is in use in the institution's locality. The standard may be formal (e.g. a "living wage" ordinance covering public employees) or informal (e.g. a standard adopted by a local, regional or national campaign).
3. An appropriate poverty guideline, threshold or low-income cut-off for a family of four.

For institutions that elect to assess compensation against a poverty guideline, threshold or low-income cut-off, sustainable compensation is defined as wages equivalent to 120 percent of the poverty guideline for a family of four. An institution may offset up to 20 percent of the wage criteria with employer-paid benefits that address basic needs (e.g. healthcare and retirement contributions).

Both parts of this credit are based on the total number of employees working on campus as part of regular and ongoing campus operations, which includes:

- Staff and faculty, i.e. all regular full-time, regular part-time and temporary (or non-regular) employees, including adjunct faculty and graduate student employees (e.g. teaching and research assistants). Institutions may choose to include or omit undergraduate student workers.
- Employees of contractors that work on-site as part of regular and ongoing campus operations. Such contractors may include, but are not limited to, providers of dining/catering, cleaning/janitorial, maintenance, groundskeeping, transportation, and retail services.

Construction and demolition crews and other temporary contracted employees may be excluded.

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

Assessing Employee Satisfaction

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.

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

Wellness Program

Criteria

Institution has a wellness and/or employee assistance program that makes available counseling, referral, and wellbeing services to all members of any of the following groups:

- Students
- Staff
- Faculty

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

Workplace Health and Safety

Criteria

Part 1

Institution has reduced its total number of reportable workplace injuries and occupational disease cases per full-time equivalent (FTE) employee compared to a baseline.

Part 2

Institution has fewer than 5 reportable workplace injuries and occupational disease cases annually per 100 full-time equivalent (FTE) employees.

This credit includes employees of contractors working on-site for whom the institution is liable for workplace safety, for example workers for whom the institution is mandated to report injuries and disease cases by a health and safety authority such as the U.S. Occupational Health and Safety Administration (OSHA) or the Canadian Center for Occupational Health and Safety (CCOHS). Injuries and disease cases include OSHA/CCOHS-reportable fatal and non-fatal injuries (or the equivalent) arising out of or in the course of work and cases of diseases arising from a work-related injury or the work situation or activity (e.g. exposure to harmful chemicals, stress, ergonomic issues). See *Sampling and Data Standards*, below, for further guidance on reporting injuries and disease cases.

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

Investment

This subcategory seeks to recognize institutions that make investment decisions that promote sustainability. Most institutions invest some of their assets in order to generate income. Together, colleges and universities invest hundreds of billions of dollars. Schools with transparent and democratic investment processes promote accountability and engagement by the campus and community. Furthermore, institutions can support sustainability by investing in companies and funds that, in addition to providing a strong rate of return, are committed to social and environmental responsibility. Investing in these industries also supports the development of sustainable products and services. Finally, campuses can engage with the businesses in which they are invested in order to promote sustainable practices.

Throughout this subcategory, the term “sustainable investment” is inclusive of socially responsible, environmentally responsible, ethical, impact, and mission-related investment.

Credit
Committee on Investor Responsibility
Sustainable Investment
Investment Disclosure

Committee on Investor Responsibility

Responsible Party

Chelsea Hamilton

Sustainability Outreach Coordinator
Sustainability and Environmental Management Office

Criteria

Institution has a formally established and active committee on investor responsibility (CIR) or similar body that makes recommendations to fund decision-makers on socially and environmentally responsible investment opportunities across asset classes, including proxy voting. The body has multi-stakeholder representation, which means its membership includes faculty, staff, and students and may include alumni, trustees, and/or other parties.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the investment policies and activities of those entities.

A general committee that oversees the institution's investments does not count for this credit unless social and environmental responsibility is an explicit part of its mission and/or agenda.

This credit applies to institutions with endowments of US \$1 million or larger. Institutions with endowments totaling less than US \$1 million may choose to omit this credit.

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

Does the institution have a formally established and active committee on investor responsibility (CIR) or similar body that has multi-stakeholder representation and otherwise meets the criteria for this credit?:

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:

Members of the CIR, including affiliations and role (e.g. student, faculty, alumni):

Examples of CIR actions during the previous three years:

The website URL where information about the CIR is available:

Sustainable Investment

Criteria

There are two possible approaches to this credit; institutions may pursue one or both. Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

Option 1: Positive Sustainability Investment

Institution invests in one or more of the following:

- **Sustainable industries** (e.g. renewable energy or sustainable forestry). This may include any investment directly in an entire industry sector as well as holdings of companies whose entire business is sustainable (e.g. a manufacturer of wind turbines).
- **Businesses selected for exemplary sustainability performance** (e.g. using criteria specified in a sustainable investment policy). This includes investments made, at least in part, because of a company's social or environmental performance. Existing stock in a company that happens to have socially or environmentally responsible practices should not be included unless the investment decision was based, at least in part, on the company's sustainability performance.
- **Sustainability investment funds** (e.g. a renewable energy or impact investment fund). This may include any fund with a mission of investing in a sustainable sector or industry (or multiple sectors), as well as any fund that is focused on purchasing bonds with sustainable goals.
- **Community development financial institutions** (CDFI) or the equivalent (including funds that invest primarily in CDFIs or the equivalent).
- **Socially responsible mutual funds with positive screens** (or the equivalent). Investment in a socially responsible fund with only negative screens (i.e. one that excludes egregious offenders or certain industries, such as tobacco or weapons manufacturing) does not count for Option 1.
- **Green revolving loan funds** that are funded from the endowment

Option 2: Investor Engagement

Institution has policies and/or practices that meet one or more of the following criteria:

- Has a publicly available sustainable investment policy (e.g. to consider the social and/or environmental impacts of investment decisions in addition to financial considerations)
- Uses its sustainable investment policy to select and guide investment managers
- Has engaged in proxy voting to promote sustainability, either by its CIR or other committee or through the use of guidelines, during the previous three years
- Has filed or co-filed one or more shareholder resolutions that address sustainability or submitted one or more letters about social or environmental responsibility to a company in which it holds investments, during the previous three years
- Has a publicly available investment policy with negative screens, for example to prohibit investment in an industry (e.g. tobacco or weapons manufacturing) or participate in a divestment effort (e.g. targeting fossil fuel production or human rights violations)
- Engages in policy advocacy by participating in investor networks (e.g. Principles for Responsible Investment, Investor Network on Climate Risk, Interfaith Center on Corporate Responsibility) and/or engages in inter-organizational collaborations to share best practices

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

Investment Disclosure

Criteria

Institution makes a snapshot of its investment holdings available to the public, including the amount invested in each fund and/or company and proxy voting records. The snapshot of holdings is updated at least once per year.

Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

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

Innovation

Innovation

These credits recognize institutions that are seeking innovative solutions to sustainability challenges and demonstrating sustainability leadership in ways that are not otherwise captured by STARS.

Credit
Innovation 1
Innovation 2
Innovation 3
Innovation 4

Innovation 1

Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

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

Innovation 2

Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

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

Innovation 3

Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

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

Innovation 4

Criteria

1. Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
6. The innovative practice or program should originate from an area within the defined institutional boundary.
7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

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