

AC 1: Academic Courses

14 points available

Rationale

This credit recognizes institutions that offer sustainability course content across the curriculum. Sustainability courses can provide valuable grounding in the concepts and principles of sustainability, help build knowledge about a component of sustainability, or introduce students to sustainability concepts. Institutions that integrate sustainability concepts throughout the curriculum prepare students to apply sustainability principles in their professional fields. Having sustainability courses and content offered by numerous departments helps ensure that the institution's approach to sustainability education is comprehensive and includes diverse topics. This will help students develop a broad understanding of the field. Likewise, offering sustainability course content in numerous departments can increase student exposure to sustainability topics and themes.

Conducting an inventory of academic offerings provides an important foundation for advancing sustainability curriculum. It provides a baseline for understanding current offerings and can help institutions identify strengths and opportunities for growth. In addition, a list and description of sustainability-focused courses and other courses that are inclusive of sustainability helps current and prospective students find and understand sustainability course offerings, which can assist them in organizing their academic studies.

Applicability

This credit applies to all institutions that have students enrolled for credit.

Criteria

Part 1. Sustainability course offerings

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

Part 2. Sustainability course offerings by department

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

Required documentation

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

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

- An indication of whether the course qualifies as sustainability-focused or sustainability-inclusive (or equivalent terminology).

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

An institution that has developed a more refined approach to course classification may use that approach as long as it is consistent with the definitions and guidance provided.

Scoring

An institution must identify and describe its sustainability course offerings per the minimum criteria outlined in Measurement to earn points for this credit. Each part is scored independently.

Part 1

An institution earns the maximum of 8 points for Part 1 of this credit if 20 percent or more of all courses offered are sustainability-focused or sustainability-inclusive. Incremental points are awarded based on the percentage of course offerings that meet the criteria. For example, an institution where 4 percent of all courses offered are sustainability-focused and 6 percent are sustainability-inclusive would earn 4 points (half of the points available for Part 1 of this credit).

Points for Part 1 of this credit are calculated automatically in the STARS Reporting Tool as follows:

Course type	Factor		Number of courses offered of each type		Total number of courses offered by the institution		Points earned
Sustainability-focused	40	x	_____	÷	_____	=	
Sustainability-inclusive	40		_____				
Total points earned →							Up to 8

Part 2

An institution earns the maximum of 6 points for Part 2 of this credit when 90 percent or more of academic departments offer at least one sustainability-focused or sustainability-inclusive course. Incremental points are available based on the percentage of academic departments that have sustainability course offerings. For example, if 45 percent of the departments at an institution offered one or more sustainability-focused or sustainability-inclusive courses, that institution would earn 3 points (half of the points available for Part 2 of this credit).

Points for Part 2 of this credit are calculated automatically in the STARS Reporting Tool as follows:

Factor		Number of departments with sustainability course offerings		Total number of departments		Points earned
6.67	×	_____	÷	_____	=	Up to 6

Reporting Fields

Required

- ☐ Total number of *undergraduate courses* offered by the institution
- ☐ Number of undergraduate courses offered that are *sustainability-focused*
- ☐ Number of undergraduate courses offered that are *sustainability-inclusive*
- ☐ Total number of *graduate courses* offered by the institution
- ☐ Number of graduate courses offered that are sustainability-focused
- ☐ Number of graduate courses offered that are sustainability-inclusive
- ☐ Total number of academic departments that offer courses (at any level)
- ☐ Number of academic departments with sustainability course offerings
- ☐ A copy of the institution's inventory of its sustainability course offerings and descriptions (upload)
- ☐ Do the figures reported above cover one, two, or three academic years?
- ☐ A brief description of the methodology used to complete the course inventory (i.e., how the total number of courses offered was determined and how sustainability course offerings were identified, including the definitions used and the process for reviewing and/or validating the course inventory)
- ☐ How were courses with multiple offerings or sections counted for the figures reported above?
 - ☐ Each offering or section of a course was counted as an individual course
 - ☐ Each course was counted as a single course regardless of the number of offerings or sections
 - ☐ Not applicable; no courses with multiple offerings or sections were included
 - ☐ Other (Please describe below)

If Other, provide:

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

Optional

- ☐ Website URL where information about the sustainability course offerings is available
- ☐ Additional documentation to support the submission (upload)
- ☐ Data source(s) and notes about the submission
- ☐ Contact information for a responsible party (an employee who can respond to questions regarding the data once it is submitted and available to the public)

Measurement

Timeframe

Report the most data available from within the three years prior to the anticipated date of submission.

Institutions may choose to inventory and report course offerings from one, two, or three academic years, as long as both the total number of courses offered and the number of sustainability course offerings are measured during the same period.

Sampling and Data Standards

Part 1

Each institution is free to choose a methodology to identify sustainability course offerings that is most appropriate given its unique circumstances. Asking faculty and departments to self-identify courses that are sustainability-focused and sustainability-inclusive 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.

To best reflect the number of opportunities students have to learn about sustainability, it is recommended that institutions count each time a course is offered as a separate course (e.g., a course with two sections taught in the fall term and two sections taught during spring term would count as four courses). To streamline the data gathering process, however, institutions may elect to count a course with multiple offerings as a single course as long as sustainability course offerings are counted in the same way as total course offerings. For example, a course that is held twice (or if there are two sections) in the fall term and once in the spring term may be counted as 3 courses or 1 course, as long as the institution's course counting methodology is consistent. An institution that elects not to count each time a course is offered as a separate course should verify that 50 percent or more of the sections or offerings of a course are sustainability-focused or sustainability-inclusive.

Likewise, an institution may choose whether or not to count courses listed in multiple departments or academic divisions as separate courses. For example, a course that is cross-listed in two departments or that is listed as both an undergraduate and a graduate course may be counted as one or two courses, as long as the institution's methodology is consistent.

The following course types may be excluded at the institution's discretion, as long as they are excluded from both the count of sustainability course offerings and the count of total courses:

- Individually-directed courses (e.g., thesis, independent study, practicum)
- Courses of four or fewer students
- Special topics courses (e.g., courses that address emerging issues or specialized content and that are not offered on an ongoing basis)
- Required courses for which the content is dictated by external bodies or legislation and not under institutional control (e.g., legally mandated courses on research ethics)
- Courses that are strictly practice-oriented, e.g.:
 - Medical courses dedicated to clinical practice.
 - Arts courses dedicated to performance, technique, or composition.
 - Physical education courses that are activity-based.
 - Trades courses dedicated to hands-on learning or practice.

Any exclusions must be documented in the public "Data source(s) and notes about the submission" field.

Courses must have been taught during the specified timeframe of one, two or three academic years to count (e.g., as opposed to being listed in a course catalog, but not taught).

Courses offered by outside entities (e.g., courses offered by other colleges that are part of a consortium with the institution or courses offered through study abroad programs that are not administered by the institution) should not be counted in the reporting institution's course inventory. However, courses developed and offered jointly by multiple institutions that are listed in the reporting institution's course catalog may be counted. In such circumstances, courses should be counted consistently. This means that if sustainability courses offered jointly by the participating institution and another entity are included in the inventory, jointly offered courses without sustainability content should be included as well.

Part 2

Each department with one or more sustainability course offerings may be counted toward Part 2 of this credit, even if the courses are offered or administered jointly with other departments. Courses that are offered independently of any department are not considered in Part 2.

An institution may exclude departments that exclusively offer practice-oriented courses (see above), as long as they are excluded from both the count of departments with sustainability course offerings and the count of total academic departments. Any exclusions must be documented in the public "Data source(s) and notes about the submission" field.

Standards and Terms

Academic departments

An academic department is an administrative division of a college, university, or school faculty that is devoted to a particular academic discipline (e.g., Economics, Environmental Science, Sociology) or a closely related set of disciplines (e.g., Asian Studies or Physics & Astronomy). Departments may exist under other nomenclature and with coarser or finer divisions, depending upon each institution's context. Fields of study, programs, subject areas or the equivalent may be considered to be "departments" in the absence of traditional administrative divisions.

Graduate courses

Graduate courses are offered as part of the spectrum of education beyond the level of a baccalaureate, i.e. for students who hold bachelor's degrees or above and are taking courses at the graduate level.

Sustainability challenges

AASHE defines sustainability in a pluralistic and inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations. Major sustainability challenges include (but are not limited to) climate change, global poverty and inequality, natural resource depletion, and environmental degradation. To identify additional sustainability challenges, it may be helpful to reference the principles outlined in the [Earth Charter](#) and/or the targets embedded in the UN [Sustainable Development Goals](#) (SDGs).

Sustainability course offerings

Sustainability course offerings include A) sustainability-focused courses and B) sustainability-inclusive courses:

A. Sustainability-focused courses (a.k.a. "sustainability courses")

To count as sustainability-focused, the course title or description must indicate a primary and explicit focus on sustainability. This includes:

- Foundational courses with a primary and explicit focus on sustainability (e.g., Introduction to Sustainability, Sustainable Development, Sustainability Science).
- Courses with a primary and explicit focus on the application of sustainability within a field (e.g., Architecture for Sustainability, Green Chemistry, Sustainable Agriculture, Sustainable Business). As sustainability is an interdisciplinary topic, such courses generally incorporate insights from multiple disciplines.
- Courses with a primary and explicit focus on a major sustainability challenge (e.g., Climate Change Science, Environmental Justice, Global Poverty and Development, Renewable Energy Policy). The focus of such courses might be on providing knowledge and understanding of the problems and/or the tools for solving them.

The course title or description does not have to use the term “sustainability” to count as sustainability-focused if the primary and explicit focus of the course is on the interdependence of ecological and social/economic systems or a major sustainability challenge. If the course title and description do not unequivocally indicate such a focus, but it is evident from the course description or syllabus that the course incorporates sustainability challenges, issues, and concepts in a prominent way, the course may qualify as sustainability-inclusive (see below).

B. Sustainability-inclusive courses (a.k.a. “sustainability-related courses”)

Courses that are not explicitly focused on sustainability may contribute towards scoring if sustainability has clearly been incorporated into course content. To count as sustainability-inclusive, the course description or rationale provided in the course inventory must indicate that the course incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability challenges, issues, and concepts throughout the course.

While a foundational course such as chemistry or sociology might provide knowledge that is useful to practitioners of sustainability, it would not be considered “sustainability-inclusive” unless the concept of sustainability or sustainability challenges and issues are specifically integrated into the course. Likewise, although specific tools or practices such as GIS (Geographic Information Systems) or engineering can be applied towards sustainability, such courses would not count unless the description or rationale provided in the inventory clearly indicates that sustainability is integrated into the course.

Undergraduate courses

Undergraduate courses are included in courses of study leading up to the level of a baccalaureate, i.e., 4 or 5-year bachelor's degree programs, associate's degree programs, or vocational or technical programs below the baccalaureate.

Scoring Example: Academic Courses

Part 1

Example College offered 1,000 courses during the past year. Of those courses, 10 were sustainability-focused and 65 were sustainability-inclusive.

Course type	Factor		Number of courses offered of each type		Total number of courses offered by the institution		Points earned
Sustainability-focused	40	×	<u>10</u>	÷	<u>1,000</u>	=	0.4
Sustainability-inclusive	40		<u>65</u>				2.6
Total points earned →							3.0

Part 2

Example College has 30 academic departments. Of those, 10 offer at least one sustainability-focused or sustainability-inclusive course.

Factor		Number of departments with sustainability course offerings		Total number of departments		Points earned
$6\frac{2}{3}$	×	<u>10</u>	÷	<u>30</u>	=	2.22

Credit Example: Identifying Sustainability Course Offerings

Sustainability-focused	Sustainability-inclusive	Insufficient evidence to qualify as a sustainability course offering
<p>Introduction to Sustainable Energy This course assesses current and potential future energy systems, with emphasis on meeting regional and global energy needs in the 21st century in a sustainable manner. We will examine various renewable and conventional energy production technologies, energy end-use practices and alternatives, and consumption practices in different countries. Students will learn to evaluate energy technology system proposals in the context of environmental, engineering, political, social, and economic goals.</p> <p><i>The course title and description indicate a primary and explicit focus on the application of sustainability within a field and a major sustainability challenge (sustainable energy production).</i></p>	<p>Energy Infrastructure An overview of production methods for electric power, thermal energy and cooling. The course includes a unit on the environmental consequences of different technologies.</p> <p>Photovoltaic and Wind Turbine Installation The course will discuss the fundamentals of photovoltaic and wind power generation, installation and maintenance practices.</p> <p><i>The primary and explicit focus of each of these courses is on a topic other than sustainability, but sustainability challenges, issues, and concepts are clearly incorporated into course content.</i></p>	<p>Energy Systems Explores energy systems as infrastructure critical to national and global economies and provides an overview of energy resources, production, and delivery.</p> <p><i>Although the course provides knowledge that may be useful to sustainability practitioners, the description does not indicate that the sustainability challenges associated with energy production are addressed.</i></p> <p><i>If a rationale was provided that indicated the presence of a sustainability-focused unit, module, or activity, the course could be counted as sustainability-inclusive.</i></p>
<p>Conservation Biology The focus of this course is on the science of conservation biology in the context of environmental policy, socioeconomic demands, and environmental ethics. Topics will include population biology, extinction, wildlife management, the role of science in making environmental policy, wetlands conservation, sustainable agriculture and forestry, integrated land-use management, and vegetation analysis.</p> <p><i>Although the course is not focused on the concept of sustainability, the description indicates a primary and explicit focus on the interdependence of ecological and social/economic systems.</i></p>	<p>Population Biology Introduction to basic theoretical tools to study the evolutionary and ecological dynamics of populations. Topics include ecology of individuals, population growth models, structured populations, life history strategies, stochastic populations, basic population genetics theory, deleterious alleles in natural populations, and molecular population genetics.</p> <p><i>The primary and explicit focus of the course is on a topic other than sustainability, but sustainability challenges, issues, and concepts (e.g., ecological dynamics) are clearly incorporated into course content.</i></p>	<p>Introduction to Biology This introductory course defines biology and its relationship to other sciences. We examine the overarching theories of life from biological research and also explore the fundamental concepts and principles of the study of living organisms and their interaction with the environment.</p> <p><i>Although the course provides knowledge that may be useful to sustainability practitioners, the description does not indicate that sustainability challenges, issues, and concepts are integrated into the course.</i></p> <p><i>If a rationale was provided that indicated the presence of a sustainability-focused unit, module, or activity, the course</i></p>

		<i>could be counted as sustainability-inclusive.</i>
<p>Environmental Literature This course will introduce students to contemporary environmental literature. All texts in the course focus on the natural world and the human relationships with it. We will discuss such questions and topics as pollution, climate change, the fossil- and post-fossil fuel economies, ethics, environmental activism, and questions of responsibility to the earth.</p> <p><i>Although the course is not focused on the concept of sustainability, the description indicates an explicit focus on the interdependence of ecological and social/economic systems.</i></p>	<p>Modern and Contemporary Nature Writing This course examines varied depictions of the environment in modern and contemporary literary texts from a range of genres. The course will place these in theoretical and historical context, considering the key features of contemporary environmental discourses. Includes units on post-pastoral, post-carbon, apocalyptic and 'the new nature writing', and media reportage of recent environmental issues.</p> <p><i>The primary and explicit focus of the course is on a topic other than sustainability, but sustainability challenges, issues, and concepts (e.g., post-carbon futures) are clearly incorporated into course content.</i></p>	<p>American Renaissance Literature This class investigates how the diverse literary genres of the American Renaissance have been used to construct identity and culture. Required readings include works by Emerson, Melville, Thoreau, and Whitman.</p> <p><i>Although the course provides knowledge that may be useful to sustainability practitioners, the description does not indicate that sustainability challenges, issues and concepts are integrated into the course.</i></p> <p><i>If a rationale was provided that indicated the presence of a sustainability-focused unit, module, or activity, the course could be counted as sustainability-inclusive.</i></p>
<p>Sustainable Business This course will provide an overview of the challenges of sustainability, including the expected impacts of climate change, resource constraints on various sectors of the economy (including job creation), and expectations around corporate governance. It will embed the issues of carbon management, sustainable practices, waste reduction, social development and resource management in the larger set of goals encompassed in what is known by the closely related terms of "corporate sustainability" or just "corporate responsibility."</p> <p><i>The course title and description indicate a primary and explicit focus on the application of sustainability within a field.</i></p>	<p>Business Ethics The overall goal of this course is to help the student understand and appreciate the elements of ethics, the importance of ethical decision making, and its effects on themselves, business and society. The course includes a module on "ESG (environmental, social and governance) Criteria" that addresses corporate social and environmental responsibility in a global context.</p> <p><i>The primary and explicit focus of the course is on a topic other than sustainability, but sustainability challenges, issues, and concepts (e.g., social and environmental responsibility) are clearly incorporated into course content.</i></p>	<p>Supply Chain and Procurement Management Students will gain an in-depth understanding of strategic, tactical and operational issues relating to the management of supply chains. You will be equipped with state-of-the-art concepts, methods, techniques and tools to contribute towards the competitiveness of industrial and commercial organizations worldwide.</p> <p><i>Although the course provides knowledge that may be useful to sustainability practitioners (e.g., supply chain management), the description does not indicate that sustainability challenges, issues, and concepts are integrated into the course.</i></p> <p><i>If a rationale was provided that indicated the presence of a sustainability-focused unit, module, or activity, the course could be counted as sustainability-inclusive.</i></p>

<p>Environment and Public Health The course will examine the health impacts of environmental degradation and pollution, with a focus on the concept of environmental justice. Students will also investigate how the outputs of healthcare (for example, chemicals and waste) can impact patients, staff and local communities.</p> <p><i>The course title and description indicate a primary and explicit focus on the application of sustainability within a field and the interdependence of ecological and social systems (environmental justice and the relationship between the environment and human health).</i></p>	<p>Community Health This course designed to give students an in-depth understanding of the social determinants of health. The course will provide historical and theoretical perspectives on the problem, provide a critical examination of empirical support for various explanatory pathways, and prepare students to conduct health-related research with disadvantaged communities. Includes readings on the intersection of poverty, environmental issues, and health.</p> <p><i>The primary and explicit focus of the course is on a topic other than sustainability, but sustainability challenges, issues, and concepts are clearly incorporated into course content.</i></p>	<p>Foundations in Medicine I This course provides the grounding in the physician-patient relationship that is central to all of medical practice. It includes medical interviewing, medical ethics, community preceptorships, service learning, preventive medicine, human behavior and the healthcare system as well as other topics and issues important for contemporary medicine.</p> <p><i>Although the course provides knowledge that may be useful to sustainability practitioners (e.g., ethics and service learning), the description does not indicate that sustainability challenges, issues, and concepts are integrated into the course.</i></p> <p><i>If a rationale was provided that indicated the presence of a sustainability-focused unit, module, or activity, the course could be counted as sustainability-inclusive.</i></p>
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