

University of Arkansas

Academic KPI 2011-2013



Sustainability House
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Overview

This project outlines the results of the AASHE STARS report on sustainability related curriculum on the University of Arkansas campus from 2011-2013. Sustainability course identification and sustainability courses by department, as well an analysis of sustainability learning outcomes are outlined below.

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Methodology

Sustainability Course Identification

- Institution's definition of Sustainability: Development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.
- Methodology: The Executive Director of the Office for Sustainability and the Sustainability Curriculum Committee distinguished whether sustainability was the sole focus of courses or if they were related to sustainability.
- Sustainability Course Inventory for the minor can be found at: <http://sustainability.uark.edu/16966.php>
- All department courses can be found at: <http://catalogofstudies.uark.edu/2881.php>

Course Identification

Sustainability Focused Courses

- Number of sustainability-focuses courses offered: 63
- Total number of courses offered: 3490
- Number of years covered by data: One
- Sustainability focused courses make up just over one percent of all courses offered to students.

Table 1. List of Courses Offered

- | | | |
|--|--|---|
| ○ SUST 1103 -
FUNDAMENTALS OF
SUSTAINABILITY | ○ HORT 3503
Sustainability and
Organic Horticulture | ○ Food, Farming &
Sustainability |
| ○ SUST 2103 -
APPLICATIONS OF
SUSTAINABILITY | ○ HORT 4503
Sustainable Nursery
Management | ○ Agricultural Policy
Making and the Impact
of the Federal Budget |
| ○ SUST 4103 -
CAPSTONE PROJECT IN
SUSTAINABILITY | ○ WCOB 3023
Sustainability in
Business | ○ Agricultural
Perspectives |
| ○ BIOL 3863/BIOL
3861L General Ecology
and lab | ○ CSES 2012 Organic
Crop Production | ○ Regulated Markets in
Agriculture |
| ○ BIOL 480V BIOL 580V
Conservation Genetics | ○ ARCH 303V-H-
Sustainability Summer
Program 2013 | ○ Agricultural Water Law |
| ○ CSES 3214 Soil
Resources & Nutrient
Cycles | ○ ARCH 4023H
Sustainability and
Design Permission of
instructor | ○ Agricultural Labor Law |
| ○ ENSC 3003
Introduction to Water
Science | ○ CVEG 488V
Sustainability in Civil
Engineering | ○ International
Agricultural Trade |
| ○ ENSC 3103 Plants and
Environmental
Restoration | ○ INEG 4583 Renewable
Energy: Green Power
Sources | ○ Rural Lands-Rural
Livelihoods |
| ○ ENCS 404V Watershed | ○ MEEG 4453 Industrial
Waste and Energy
Management | ○ ENDY 5113 Global
Change |
| ○ GEOG 3003
Conservation of
Natural Resources | ○ LARC 40?? Sustainable
Housing | ○ ENDY 6013
Environmental
Dynamics |
| ○ ENSC 1003
Environmental Science | ○ LARC 40?? Alternative
Stormwater
Management | ○ ENDY/ANTH 6033
Society and
Environment |
| ○ AGECE 3413 Principles
of Environmental
Economics | ○ LARC 303V Regional
Environmental
Planning | ○ BENG 5933
Environmental and
Ecological Risk
Assessment |
| ○ AGECE 3523
Environmental and
Natural Resource Law | ○ AGECE 4163 Agriculture
and Rural Development | ○ BENG 5623 Life Cycle
Assessment |
| ○ BENG 3603 Sustainable
Agricultural Methods | ○ COMM 4643
Environmental
Communications | ○ MBAD 5241. Ethical
Decision Making |
| ○ BENG 4663 Sustainable
Biosystems | ○ ENGL 4133
Environmental
Literature and Nature
Writing | ○ ENTO 4123 Insect Pest
Management |
| ○ ECON 3843 Economic
Development, Poverty,
& the Role of the World
Bank and IMF in Low-
Income Countries | ○ ENSC 3933/ PHIL 3113
Environmental Ethics | ○ PHYS 1044. Physics for
Architects I |
| ○ ENSC 3223/3221L
Ecosystems
Assessment and lab | ○ GEOS 4693
Environmental Justice | ○ BENG 4933 Sustainable
Watershed Engineering |
| ○ ENSC 3263 Soil and
Water Conservation
with lab component | ○ RSOC 4603
Environmental
Sociology | ○ BIOL 4154 Biology of
Global Change |
| ○ HORT 3203
Sustainable Landscape
Practices | ○ Agriculture & the
Environment | ○ Geol 360V Special
Problems: Sustainable
Practices in Panama |
| | | ○ WCOB 410V The
Sustainability Mindset |
| | | ○ ENSC 1003
Environmental Science |
| | | ○ ARCH 2132
Environmental
Technology I |
| | | ○ ARCH 4154
Environmental
Technology II and
Building Systems |

- ARHS 4983 Ecological Emergences in

American Art and Architecture

- HIST 3273 Agricultural and Rural History of America

Sustainability Related Courses

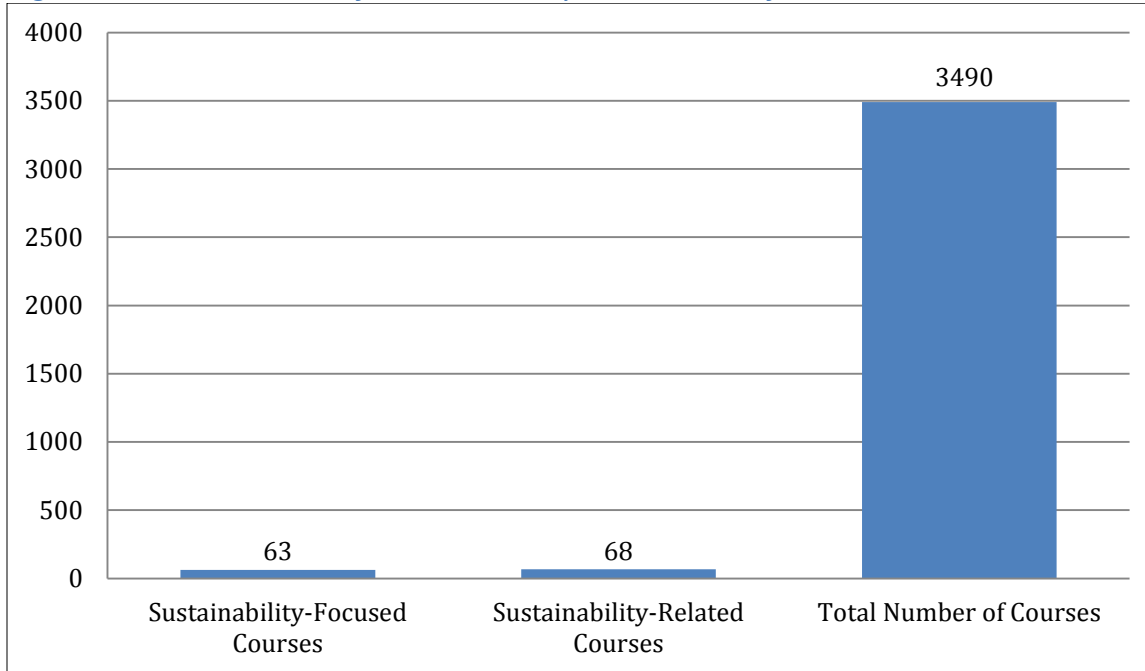
- Number of sustainability-related courses offered: 68
- Total number of courses offered: 3490
- Number of years covered by data: One
- The number of sustainability related courses makes up almost 2% of total courses.

Table 2. List of sustainability related courses offered

- | | | |
|---|--|--|
| ○ BIOL 1543/1541L Principles of Biology and lab | ○ ENSC 4263 Environmental Soil Science | ○ CHLP 6553 Environmental Health |
| ○ CHEM 1103 University Chemistry I; the lab component, CHEM 1101L, is recommended | ○ AGED 4443 Methods of Technological Change | ○ CHLP 4643/5643 Multicultural Health |
| ○ CHEM 1123/1121L University Chemistry II and lab | ○ AGME 1613 Fundamentals of Agricultural Systems Technology with lab component | ○ SCWK 4093 Human Behavior and Social Environments I |
| ○ CSES 2203/2201L Soil Science and lab | ○ MGMT 4243 Ethics & Corporate Responsibility | ○ SCWK 4103 Human Behavior and Social Environments II |
| ○ GEOG 2003 World and Regional Geography | ○ GEOG 4383 Hazard Assessment and Risk Policy | ○ SCWK 3193 Human Diversity and Social Work |
| ○ GEOG 3333 Oceanography | ○ MEEG 4473 Indoor Environmental Design | ○ SOCI 2033 Social Problems |
| ○ GEOG 3383 Principles of Landscape Evolution | ○ GEOG 3543 Geographic Information Science | ○ SOCI 3193 Race, Class, Gender in the U.S. |
| ○ GEOG 4353 Elements of Weather | ○ GEOG 4063 Urban Geography | ○ SOCI 4013 Special Topics: The City |
| ○ GEOG 4363 Climatology | ○ ARCH 2114 Building Environmental Technology: Passive Systems Buildings | ○ TEED 2103 Technology & Society |
| ○ GEOL 1113/1111L General Geology and lab | ○ ARCH3134 Building Systems: Lighting, Acoustics, and HVAC | ○ Introduction to the Law of Food & Agriculture |
| ○ GEOL 1133/1131L Environmental Geology and lab | ○ LARC 4743 Site Planning in Landscape Architecture | ○ Food Law & Policy |
| ○ GEOL 4033 Hydrogeology | ○ CVEG 3243 Environmental Engineering with lab component | ○ Food Safety & Litigation |
| ○ GEOL 4053 Geomorphology | ○ CVEG 4243 Environmental Engineering Design | ○ Regulation of Livestock Sales |
| ○ GEOL 4063 Principles of Geochemistry | ○ CVEG 4323 Design of Structural Systems | ○ Federal Farm Policy |
| ○ GEOS 4413 Principles of Remote Sensing | ○ CSCE 4233 Low Power Digital Systems | ○ Selected Issues in Food Law |
| ○ BIOL 4163 Dynamic Models in Biology | ○ RESM 1023 Recreation and Natural Resources | ○ Legal Issues in Agricultural & Food Law |
| ○ MATH 4163 | ○ RESM 4023 Outdoor Adventure Leadership | ○ Research & Writing in Agricultural & Food Law |
| ○ PHYS 2054 University Physics I | ○ ANTH 4143 Ecological Anthropology | ○ SOCI 5253 Classical Social Theory |
| ○ PHYS 2074 University Physics II | ○ HIST 4773 Environmental History | ○ ENDY/ANTH/GEOS 5053 Quaternary Environments |
| ○ AGED 4003 Issues in Agriculture Junior standing | | ○ ENTO 4053 Insect Ecology |
| ○ ENSC 4023 Water Quality with lab component | | ○ CIED 5943. Teaching People of Other Culture |
| | | ○ DRAM 4463. African American Theatre History -- 1950 to Present |

- ENGL 3143. Language and Expressive Culture
- PHIL 2303. Human Nature and the Meaning of Life
- PHIL 4113. Social and Political Philosophy
- PHYS 1023. Physics and Human Affairs
- HIST 3323 The West of Imagination
- HIST 4463 The American Frontier

Figure 1. The number of sustainability related and focused courses.



Sustainability Courses by Department

- Number of departments that offer at least one sustainability related or focused course: 49
- Total number of departments that offer courses: 52
- 94% of departments offer at least one sustainability focused or related course.

Table 3. List of departments that offer sustainability courses

- Department of Accounting
- Department of Ag Econ Ag Busn
- Department of Agri Education
- Department of Animal Science
- Department of Anthropology
- Department of Architecture
- Department of Landscape Arch
- Department of Biol Engr
- Department of Biological Sci
- Dept of Biomedical Engineering
- Department of Chem & Bio Chem
- Department of Chem Engr
- Department of Curr & Instr
- Department of Communication
- Department of Cmp Sci/Cmp Engr
- Department of Crop Soil Env Sc
- Continuing Education
- Department of Civil Engr
- Department of Drama
- Department of Economics
- Department of Education Reform
- Department of Elec Engr
- Department of English
- Department of Entomology
- Department of Food Science
- Department of Finance
- Department of Geosciences

- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| ○ Department of Human Env Sci | ○ Department of Mech Engr | ○ Department of Poultry Science |
| ○ Department of Hlth/Hmn Per/Rec | ○ Department of Management | ○ Dept of Psychological Science |
| ○ Department of History | ○ Department of Marketing | ○ Department of Rehab/HR/CD |
| ○ Department of Horticulture | ○ Eleanor Mann School of Nursing | ○ Dept of Supply Chain Mgmt |
| ○ Department of Indust Engr | ○ Department of Philosophy | ○ Department of Social Work |
| ○ Department of Information Sys | ○ Department of Physics | ○ Department of Soci & Crim Just |
| ○ Department of Journalism | ○ Department of Plant Pathology | ○ Dept World Lang Lit & Cultures |
| ○ Department of Law | ○ Department of Political Sci | |

Learning Outcomes: 2011-2013

“Consistent with the [United Nations Educational, Scientific and Cultural Organization \(UNESCO\)](#), student learning outcomes are defined as:

Statements of what a learner is expected to know, understand, and be able to demonstrate after completion of a process of learning as well as the specific intellectual and practical skills gained and demonstrated by the successful completion of a unit, course, or program. Learning outcomes, together with assessment criteria, specify the minimum requirements for the award of credit, while grading is based on attainment above or below the minimum requirements for the award of credit. Learning outcomes are distinct from the aims of learning in that they are concerned with the achievements of the learner rather than with the overall intentions of the teacher.”

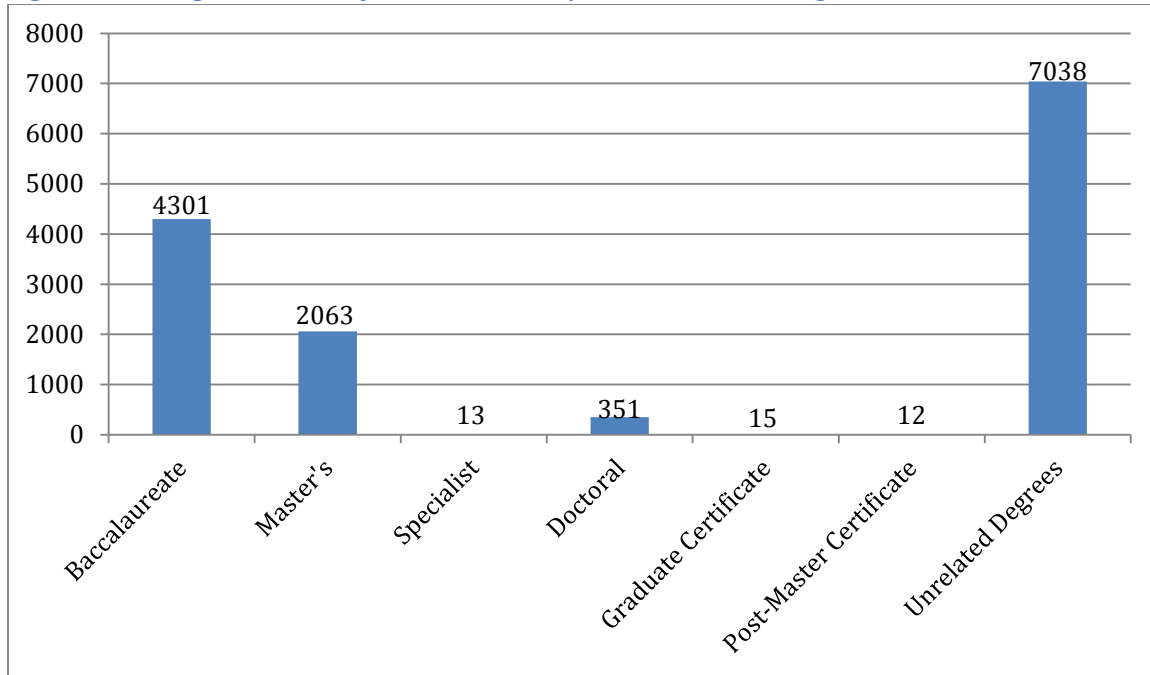
For this application, learning outcomes are the number of students who have graduated from a program that requires a sustainability course or has a stated learning outcome of sustainability.

This number only includes students with a primary degree in one of said degree programs. Students with double majors or sustainability-related minors were not included to prevent counting students twice.

Almost half (49 percent) of all students graduated from a degree program that has adopted at least one sustainability learning outcome. Majority (64 percent) of these students graduated from baccalaureate degree programs.

- Number of Students who graduated from a degree program that has adopted at least one sustainability learning outcome: 6,755
- Total number of graduates: 13,793
- Percentage of graduates receiving some kind of sustainability learning outcome: 49%

Figure 2. Degree level of sustainability related learning outcomes



Project Summary

The University of Arkansas offers a wide range of sustainability focused and related courses across almost all academic departments. The number of focused or related courses is relatively low compared to total courses offered. However, as the sustainability minor continues to mature, additional related or focused courses will be added to this list. Additionally, a streamlined way for faculty to demarcate their courses as related or focused would also boost these numbers.