

Proposal for a Minor in Sustainability

Stockton Program Acronym: SUST

Degree/level of Current Program:

BA/BS: CIP Code: 30.3301

Name(s) and signatures of Faculty Proposing New
Option:

Maritza Jauregui, Ph.D.

Associate Professor of Sustainability

Tait Chirenje, Ph.D.

Associate Professor of Environmental Studies

A handwritten signature in black ink, appearing to read 'P. Hossay', written over a horizontal line. The signature is stylized and somewhat cursive.

Patrick Hossay, Ph.D.

Associate Professor of Sustainability

A Proposal for a Minor in Sustainability

1. Overview

a. Definition and Rationale:

The proposed minor falls under the field of Sustainability Studies, and would be housed within the current Program in Sustainability in the School of Natural Sciences and Mathematics (NAMS). This is a proposal

If we want to build a b

technologies, practices, policies,

significant potential interest in the study of sustainability among high school students in the region. Sixty-eight percent of respondents described their student's current interest in sustainability, alternative energy, environmentalism, and related fields as high or somewhat high. Similarly, half described their student's interest in pursuing a career in a sustainability related field as high or somewhat high. Most notably, eighty-six percent of respondents rated the need for a degree program in sustainability in the region as high or somewhat high; and seventy-five percent predicted that the appeal of such a program to their future students would be high or somewhat high.

A comparable survey was distributed in several Stockton courses, including an Environmental Science course, a Political Science course, and two General Studies courses. The results indicate a significant interest in this area of study among participan

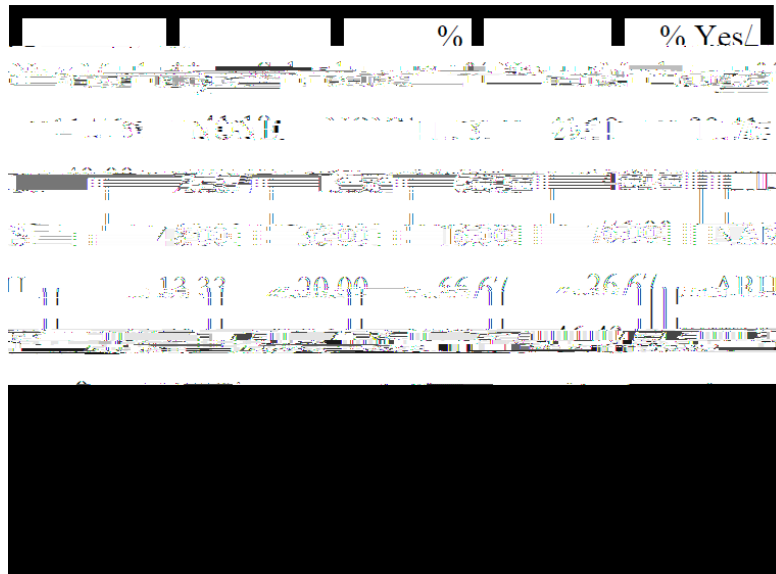
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Percent of respondents from each school answering yes, no or maybe to:

If there were to be a minor in sustainability, would you be interested in L W " ' "



*Undergraduate responses already used within other school major. Graduate responses removed during final analysis.

**Students answering 'No' indicating in their explanation that they felt a minor would be beneficial

Students were asked to explain their answers. Among the 37.1% of students that responded 77.6% explained their negative response. Reasons for negative responses fell into five categories:

a lack of interest Interest, not related to my interests (Major in Social Work)(42.1%)

a lack of relevance to personal goals as exemplified by the comments relevant to my major (Mass Communication major) or not relevant to career plans (major in Creative Writing) (31.6%)

Already have minor/double minor/double major/already taking too many classes (18.4%)

Di feel that studying sustainability is worth it as exemplified by statements such as pointless (Psychology major) and feel studying sustainability is worth it, it should be classes within existing majors and min (Computer Science major) (5%)

Graduating soon 2.6%

Those responding may fell into three main categories:

Those that were truly unsure of their interest in the field or its relevance to their field of study/career goals (29%) as exemplified by statements such as m not sure if i very relatable to

benefit from a minor is sustainability. (CSIS)

It is important to note that 70.8% of students who explained why they answered m felt that offering the minor would be beneficial.

Am

c. Target Groups

As mentioned earlier in the document, the discussion of a minor was first prompted by requests by other NAMS students for a minor in sustainability. NAMS students, particularly ENVL students, are most likely to see the connections between their major and career goals and the course offerings within SUST. Unfortunately, students in NAMS are not allowed to use NAMS courses outside of their majors to fulfill At Some Distance (ASD) requirements. This rule was created in order to force students in the sciences to gain breadth in their liberal arts education, but it makes it difficult for students who wish to take courses in another science major that is not an elective or a basic science to do so without adding on to their time at Stockton. Offering the minor would allow these students to gain recognition for their extra effort.

These students would not be other only ones who could gain from the existence of a sustainability minor. By its very nature, sustainability as a discipline exists at the nexus of multiple fields of knowledge. Research relevant to the goals of sustainability was addressed in the past within disciplines as diverse as sociology and geochemistry, environmental science and political science, economics and biology. Starting from these diverse foundations, sustainability became its own distinct field of research and study, transcending the concerns of its foundational disciplines and focusing instead on understanding the complex dynamics that arise from interactions between human and environmental systems.

Given the nature of the discipline and its foundations, the proposed minor could be applicable to students from almost every possible major and school of the university. While the minor will not prepare them to be professionals in the sustainability field, it will help them to prepare for the expanding career

and Raufflet, 2015), and Hospitality and Tourism (Goh, et al. 2017) to incorporate sustainability education into the curriculum. Completing a minor in sustainability would enhance chances of success in employment and graduate studies in these fields and others that require students who are trained in systems thinking and understand the complexities and interdependencies of our world today. The importance of sustainability to these diverse disciplines is mirrored in the range of students from different majors that expressed an interest or felt that a minor would be beneficial.

Curriculum

d. Goals/Outcomes-

The mission of the sustainability program is to help train those that would lead and shape a fundamental societal transformation toward sustainability. We expect that the growth in sustainability-related jobs nationally and regionally -- so-called green collar jobs -- will likely be composed of two sorts of professionals: a relatively small group of experts who maintain a leading focus on sustainable technology, practices, policies, and innovations, and a much larger group of professionals who maintain more traditional roles but will be required to develop a broader perspective that can incorporate sustainability priorities into their existing roles. (This is, perhaps, not unl

general principles of sustainability has con

planet .[ELOs: Communication Skills; Program Competence]

3. Use systems thinking, quantitative reasoning and critical thinking in dec

e. Faculty

As students will be allowed to take two elective courses from all of the courses currently offered to Sustainability majors, the entire faculty of the Sustainability Program will be associated with the minor. No adjuncts are projected to be teaching courses for the minor.

The faculty members of the Sustainability program include the following:

David C. Burdick, Professor of Psychology

Michael Busler, Associate Professor of Business Studies

Christina Cavaliere, Assistant Professor of Hospitality and Tourism Management Studies

Tait Chirenje, Associate Professor of Environment Studies

Oliver D. Cooke, Associate Professor of Economics

Patrick Hossay, Associate Professor of Sustainability

Ronald Hutchison, Associate Professor of Biology

Maritza Jauregui, Associate Professor of Sustainability

Daniel A. Moscovici, Assistant Professor of Environmental Studies

Rodger L. Jackson, Associate Professor of Philosophy

Kristin J. Jacobson, Associate Professor of American Literature (L)-3

Elizabeth Lacey, Associate Professor

The proposed minor would require a minimum of 24 credits of coursew

research that integrates the study and management of human economies and natural ecosystems over time and space. The field treats the economy as a subsystem of the ecosystem and places heavy emphasis on preserving natural capital via sustainable practices and policies and is generally critical of the notion that natural and human-made capital are substitutable.

σ) Ecological Principles/Lab (ENVI 2260/2265) this course examines principles of ecology, the structure and function of the biosphere, population dynamics, natural selection, energy flow and nutrient cycling in natural communities and ecosystems.

Elective Courses

In addition to required courses, students would complete two more courses within their area of interest in sustainability, at least one of which must be at the 3000 or 4000 level. Again, these courses are the elective courses normally offered within the major for Sustainability, and may be drawn from any of t

SUST 3312 Energy Management

SUST 3450 Plants and Agriculture

SUST 3440 Sustainable Food and Agriculture

SUST 3201 Marine Conservation Ecology

BIOL 3365 Economic Botany

BIOL 3413 Population Biology

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g. Resources

We do not anticipate the need for any additional resources for this minor, especially since it will be housed in the same area as SUST degree. This minor will not require a minor coordinator and all courses in the minor are already currently bein

within an established program, offers the opportunity to increase the total number of students enrolled in minors at Stockton. Completing or pursuing a minor in SUST would not preclude a student from also completing another minor. The structure of the minor deliberately avoids substantial overlap with other minor programs in both content and purpose, and is meant to supplement, rather than replace, the content in these other fields; thus, is not expected to impact the enrollments in other minors. (For a list of examples of applications of sustainability training within other fields and the related literature, please see Appendix A.)

A second possible concern might be that some of the advanced courses in Sustainability minor would require prerequisites, which sometimes can be problematic for students pursuing minors. We have solved this potential concern by making the required courses for the proposed minor the same courses that serve as prerequisites for most upper level courses.

The third possible concern is a perceived lack of faculty to teach the courses required for the minor. This concern is overcome by the interdisciplinary nature of the faculty associated with SUST (see faculty list), which allows for more flexibility in not just course offerings, but in scheduling. We do not anticipate any potential issues with demand for seats in courses or changes in coursework within SUST or across the university as a result of the implementation of the minor, as we do not expect the initial number of minors in the program to be large. Based on the total number of majors, which range between 60-70, we would expect approximately 5-10 new minors in the program each year, with a four year enrollment of approximately 20-40 minors. This estimate is based on current enrollments in both interdisciplinary and program minors. Should class enrollment size eventually become an issue, solutions will be sought such as teaching courses on an online basis if need be.

i. Housing and Timeline

This minor will be housed within the currently established Sustainability (SUST) program within the School of Natural Sciences and Mathematics (NAMS). We hope to launch the minor in Fall 2019. We see this timeline as feasible for a number of reasons. First, all courses listed in the curriculum are already part of the regular course offerings within the SUST Program. Second, this minor will not require hiring new faculty, and therefore, is ready to be launched at any time.

Summary

Given the nature of this field, the proposed minor could be applicable to students from almost every possible major and school of the university. While the minor will not prepare them to be professionals in the sustainability field, it will help them to prepare for the expanding career opportunities in within their own professions.

Creating a sustainability minor is consistent with Stockton's Strategic Themes and other guiding documents, as it demonstrates

References

AASHE Campus Sustainability Hub Academic Program Database.

APPENDIX A

Examples from some Careers/Fields that would benefit from study of sustainability:

Health Science Professions: Nutritionist, Health Educator, Physician s Assistant, Nurse,
Holistic Health Practitioner, Exercise Physiologist

Businesses are changing their behaviors to conserve resources, source sustainably-
harv

plans for their development and use as a result. Increased commitments to public transit, green roofs, open spaces, minimization of energy needs, water conservation, and local production are all part of this, as is increasing the resiliency of the local economy. New and innovative solutions are needed to create cities that are both livable and environmentally friendly.

ib Architecture/Building Design/ Engineering

Recent changes in the architecture, construction and engineering fields include the creation of building sustainability certification, the practice of sustainable conservation of

APPENDIX B

Students studying sustainability learn about finding solutions that help us to create a better global future and get practical, hands-on experience in their field of interest.

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They learn about:

practices that support ecological and human health and economic vitality by managing food systems, energy systems, business and industry in ways that don't deplete our natural resources and create a better quality of life for everyone. designing new technologies, economic systems and policies to help us create a healthier world.

If there were to be a minor in susta

APPENDIX C

Electives

SUST 2154 - AMERICAN LITERATURE AND THE ENVIRONMENT

This survey of twentieth-century American environmental literature covers the time period from 1900 to 1950. Through reading poetry, fiction, and nonfiction, the criterion by which a text is included or excluded from the course is its environmental focus. The course includes an introduction to ecocritical theory and criticism.

The class explores how literature addresses environmental issues, especially the representation of nature and wilderness. This course may be offered in sections with a W2 designation.

SUST 2232 - SOCIOLOGY OF THE ENVIRONMENT

urbanization and poverty. Countries visited will vary depending on the semester but include Brazil, Ecuador, and others.

SUST 3201 - MARINE CONSERVATION ECOLOGY

Prerequisites: BIOL 2100 and ENVL 2200. This course focuses on

processes, the transport and residence time of pollutants in the three environmental media (soil, air and water), and potential human health and ecosystem impact. The most important federal environmental regulations and how they are used in compliance monitoring and the clean-up of contaminated sites will be discussed.

MARS 3307 - FISHERIES SCIENCE AND MAN

This course examines the economically valuable members of the plant kingdom including fungi, algae and higher plants. This survey includes food and agriculture, industrial feedstock, cloth and dye, plant based medicines, building materials psychoactive drugs and alternative fuels.

SUST 3675 - SUSTAINABILITY MARKETING

Sustainability Marketing focuses on ways the marketing function can be performed to maintain or enhance societal well-being and also on how to market sustainability to bring about desired goals.

Jauregui, Maritza

From: Cavaliere Christina T.
Sent: Thursday, October 11, 2018 2:44 PM
To: Jauregui, Maritza; SUST Faculty
Subject: RE: Minor in SUST

Dear Maritza and Colleagues,

I also strongly support the creation of a SUST minor! Woo Hoo!

Looking forward to the work ahead -

Warm wishes,
Christina

Dr Christina T. Cavaliere
Assistant Professor

Jauregui, Maritza

From: Cooke, Oliver
Sent: Thursday, October 11, 2018 2:25PM
To: Jauregui, Maritza; SUST Faculty
Subject: RE: Minor in SUST

I strongly support a minor in SUST!

Oliver Cooke Ph.D.
Associate Professor of Economics
Stockton University
Galloway, NJ 08205
oliver.cooke@stockton.edu
609.652.4782

Jauregui, Maritza

From: Jackson, Rodger
Sent: Thursday, October 11, 2018 2:35 PM
To: Rubenstein, Joseph; Cooke, Oliver
Cc: Jauregui, Maritza; SUST Faculty
Subject: Re: Minor in SUST

I strongly support the addition of a SUST
minor Take care,
Rodger

Rodger L. Jackson, Ph.D.
Professor, Philosophy
President, Stockton Federation of Teachers,
Local 2275 Stockton University
Galloway NJ
08205 609 626
6016
jacksonr@stockton.edu
author of: [The Logic of Our Language](#)

Jauregui, Maritza

From: Moscovici, Daniel
Sent: Thursday, October 11, 2018 2:27 PM
To: Jauregui, Maritza
Subject: Re: Minor in SUST

Yes I support.
Will get back to you when I hear from ENVL folks too.

Thanks Dan

Jauregui, Maritza

From: Rubenstein, Joseph
Sent: Thursday, October 11, 2018 2:27 PM
To: Cooke, Oliver
Cc: Jauregui, Maritza; SUST Faculty
Subject: Re: Minor in SUST

Jauregui, Maritza

From: Sedia, Kathy
Sent: Friday, October 12, 2018 11:08 AM
To: Busler, Michael; Jauregui, Maritza; SUST Faculty
Subject: Re: Minor in SUST

I support it as well

Ekaterina Sedia, PhD
Associate Professor of
Biology
Coordinator of Cannabis Studies Interdisciplinary Minor

Jauregui, Maritza

From: Zimmermann, George
Sent: Thursday, October 11, 2018 3:04 PM
To: Jauregui, Maritza; SUST Faculty
Subject: RE: Minor in SUST

I support the SUST minor!

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Jauregui, Maritza

From: Moscovici, Daniel
Sent: Friday, October 12, 2018