California State University, Long Beach Policy Statement

Policy Statement
20-04
June 16, 2020

Master of Science in Sustainability Management and Policy (36 units)

This new self-supported program was recommended by the Academic Senate on 12/6/19 and concurred by the President on 12/13/19.

Program Description

The Master of Science in Sustainability Management and Policy (MSSMP) is designed to provide students with the advanced and highly sought-after expertise needed in the field of sustainability management. The program provides training designed to prepare students to apply the concepts of sustainability within an organization and the regulatory environment by engaging them in advanced and in- demand training. This program will provide a transdisciplinary graduate degree that will empower students with technical, managerial, and problem-solving skills to guide the decision-making process in the context of sustainability. The curriculum design objective is to offer a balance between theory and application by illustrating the holistic dynamics of social, economic, environmental, business, and technical systems.

Program Admission

Admission decisions are based on consideration of the applicant's previous academic record, statement of purpose, resume, letters of recommendation, and performance on admission and English proficiency exams:

- A bachelor's degree from an accredited university in science and/or engineering or other discipline that includes the following coursework (labs not required):
    - General Chemistry
    - Mathematics through college-level Calculus
    - Additional science courses, which could include Biology, Microbiology, Chemistry, or Physics.
- Applicants with a bachelor's degree in other disciplines may be considered if the applicant has the above course work completed prior to applying.

- Minimum grade point average of 2.75 in the last 60 semester units attempted and in good standing at the last college attended.

- A statement of purpose

- A recent resume

- Two letters of recommendation

- A satisfactory score is required on either the Graduate Management Admission Test (GMAT) or the Graduate Record Exam (GRE) that demonstrates balance between verbal and quantitative skills and ability

    - A score of 4.0 or higher on the writing portion of GMAT/ GRE can be used to waive the TOEFL requirement of the Center for International Education and Global Engagement for international students. All other international applicants must take TOEFL and score 80 (550 paper- based) or higher. If not, international students will have to take GWAR.

    - U.S. institution located in a country where English is a primary language of communication have satisfied the GWAR and are not required to complete additional assessment.

- Applicants with a score of 3.5 or lower on the GMAT/ GRE writing portion will not be admitted to the program.

University Graduation Requirements

Satisfactory completion of 36 units of approved graduate courses with a GPA of 3.0 or higher.

Applicants who are admitted to the program will be subject to the university's Graduation Writing Assessment Requirement (GWAR). All entering students are required to take the GWAR Placement Exam (GPE), except students who have previously (1) received degrees from accredited colleges and universities in the United States; or (2) received degrees from an accredited non-U.S. institution located in a country where English is a primary language of communication; or (3) achieved a score of 4.0 or higher on the writing portion of the GMAT or GRE.

Completion of the culminating activity course with a grade of "B" or better.

Compliance with all other university graduation requirements.

Program Course Requirements

REQUIRED (30 units, 10 courses)

1. SUST 601. Sustainability and Society (3 units)
   Introduction to sustainability using a transdisciplinary foundation based on social sciences and natural sciences. The focus is on developing the skills to integrate material from diverse disciplines to understand the human dimension.

2. SUST 602. Sustainability Science (3 units)
   This course will provide a comprehensive compilation of conceptual perspectives, methodological approaches and empirical insights of inter- and transdisciplinary sustainability science. Developed and taught by a transdisciplinary team of faculty, it will offer perspectives and topics focused on the development, integration, and application of knowledge about Earth systems.

3. SUST 603. Sustainability Case Studies (3 units)
   Examines the science of climate change and the prospect of global, regional, and local sustainability within the context of a warming planet. Uses contemporary case studies to examine climate impacts on natural and human systems and to evaluate climate-change policies.

4. SUST 604. Data Analytics and Sustainability (3 units)
   The course explores how data analytics applied to the area of sustainability can help managers enhance economics, environmental impacts, and social performance.

5. SUST 605. Sustainability and Organization Theory (3 units)
   Explore the core organization elements for building highly sustainable organizations that can achieve both business and environmental objectives. Identify the business issues related to sustainability. Develop analytical tools for assessing and designing organization structures and processes to achieve high sustainability.

6. SUST 606. Environmental Law, Policy and Ethics (3 units)
   Focuses on the law and politics that govern, manage, and change the relationships between human activities and the environment. Examine how those policies are created, how people respond, and the underlying ethical debates.

7. SUST 607. Decision Making and Uncertainty (3 units)
   This course provides tools that allow decision makers to make better choices when uncertainty exists. Tools may include decision trees, determining risk tolerance, identifying subjective and objective probabilities, and other techniques.

8. SUST 608. Benefit Cost Analysis (3 units)
   This course introduces how and when to use the tools of benefit cost analysis while considering issues of sustainability. Content includes identification of both private and social costs and benefits used to evaluate projects and policies within the context of sustainability.

9. SUST 609. Environmental Economics and Policy (3 units)
   Economic analysis of environmental problems that lead to market failure. Analysis of policy options to provide incentive compatible mechanisms to correct for market failure from externalities, the tragedy of the commons, and information inefficiencies.

10. SUST 610. Sustainability and Strategic Management (3 units)
    Examine the strategic sustainability issues confronting contemporary organizations. Explore strategy formulation and implementation process for creating sustainable organizations that can achieve both business and environmental objectives. Integrate sustainability into the business value chain to create sustainable competitive advantage.

CULMINATING EXPERIENCE - REQUIRED (6 units, 2 courses)

1. Capstone Course – Project Orientation and Support (SUST 699A) and Applied Professional Project (SUST 699B)

Description of Culminating Project:

The Integrative Capstone Experience course (6 units) will serve as the culminating educational experience for students in the M.S. in Sustainability Management and Policy Program. It is designed to integrate the transdisciplinary fields of the program's curriculum. Students must draw on both the practical skills and the analytical knowledge they have gained in order to address crucial sustainability management issues as consultants for a real-world client, potentially related to the student's ongoing professional positions. Under the guidance of faculty mentors, interdisciplinary teams of students will engage in a twelve-week project with partner companies and non-profit organizations.

In accordance with the California Code of Regulations: Title 5 Education, Section 40510, the projects will be a significant undertaking appropriate to the professional sustainability field. Each project will investigate a range of sustainability issues, including: aligning business strategies with social and environmental goals; developing methodologies to measure business impacts on the environment; and measuring the return on investment from environmental and social initiatives. The project will include a written report documenting the project's significance, objectives, methods, and recommendations for potential solutions to the problem. In addition, students will be required to do an oral presentation of the project results and recommendations.

EFFECTIVE: Fall 2021
Campus Code: ES_PMS01E1
College: 28
Career: GR
CIP Code: 30.3301
CSU Code: 49050
Department: Geography/Environmental Science and Policy
Degree Program Delivery Type: Fully Face-to-Face
Major Pathway: (STEM or non-STEM): Non-Stem