CENTER FOR REGENERATIVE STUDIES

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The major purposes of the Center for Regenerative Studies are to develop and teach the interdisciplinary ways of thinking and acting needed to lead society into a sustainable future. As citizens of a changing, environmentally-interdependent planet, today's students face new social and technological challenges. Environmental and economic pressures are bringing increased demands for professionals knowledgeable in the means for reducing consumption and environmental impacts. The Center for Regenerative Studies addresses these needs by providing a university-based setting for education, demonstration and research in regenerative practices and technologies. These are based in processes that are inherently self-renewing and therefore conserving of energy and materials. Matters of particular concern are means for conserving and generating energy, providing shelter, managing water, producing food and limiting waste.

In the polytechnic tradition, students learn by doing in the Center's courses, which are conducted on the LandLab site. The curriculum emphasizes exploration and complex problem solving in the application and development of regenerative means and study of their far-reaching social, ethical and economic implications. Courses and research programs include faculty members and students from a range of disciplines and professions.

At the core of the Center's programs is a community where 20 students reside and apply regenerative principles and practices in their daily activities. Among their activities are regulating the thermal environment of solar heated and cooled buildings, operating solar electrical generators, growing food, and recycling water and other waste materials. The first phase of the facility includes teaching and research areas, and housing for 20 people. The second phase contains additional offices and classrooms.

The Center offers courses both for students residing at the CRS community and for other Cal Poly students. A sequence of upper division General Education courses provides a basic introduction to regenerative studies for students from a wide range of majors. A minor in Regenerative Studies, requiring 30 units of course work is offered and programs of study leading to the Master of Science degree in Regenerative Studies are now in the final phase of the approval process and will probably be offered beginning in the 1996-97 academic year.

Regenerative Studies programs do not have the distinct boundaries of traditional disciplines and professions. The Center is a hub of activity linking a diverse range of fields of knowledge and expertise, focusing them on issues of ecological sustainability. The faculty is interdisciplinary, with present faculty representing all the colleges and schools at Cal Poly Pomona. Faculty members from at least two disciplines team-teach classes.

COURSES IN MINOR

The Minor in Regenerative Studies requires a total of 30 units. In consultation with the program advisor, each student will select from the following courses a total of at least 30 units:

Introduction to Regenerative Studies	RS	111	(4)
Life Support Processes	RS	301	(4)
Global Regenerative Systems	RS	302/302L	(3/1)
Shaping A Sustainable Future	RS	303/303L	(2/2)
Regenerative Principles and Processes	RS	311/311L	(3/2)
Regenerative Practices and Technologies	RS	312/312L, 313/313L	(3/2) (3/2)(3/2)
Organization for Regenerative Practices	RS	421/421L	(3/2)
Inventions, Development and Implementation of Regenerative Systems	RS	422/422L, 423/423L	(3/2)
Special Problems for Upper Division Students	RS	400	(2-4)
Special Topics for Upper Division Students	RS	499	(1-4)

Students not residents at the Center are required to take RS 311, 421, or 422.

Course Descriptions

RS 111 Introduction to Regenerative Studies (4)

A survey of the global physical, biological, social systems used to provide for basic human needs, including food, water, shelter, energy and waste management. Emphasis will be on systems that will sustain humans into the long term future without resource depletion or permanent environmental damage. Two 2-hour lecture/discussions.

RS 301 Life Support Processes (4)

Understanding the complex physical and biological systems which provide resources to meet basic human needs. Such systems provide food, water, energy, shelter, and create wastes. 4 lecture/discussions. Prerequisites: Junior standing. ENG 104, ENG 105, BIO 110 or permission of instructor(s).

RS 302/302L Global Regenerative Systems (3/1)

Study of the institutional factors affecting implementation of the regenerative practices needed to meet the challenges of limited resources. Investigations of the global effects of human activities in the pursuit of food, water, energy, shelter and waste sinks. 3 lecture/discussions, 1 three-hour laboratory. Prerequisite: RS 301 or permission of instructor(s). Concurrent enrollment in RS 302/302L required

RS 303/303L Shaping a Sustainable Future (2/2)

How to use interdisciplinary problem solving processes for improving situations in the environment, and in natural resource management, and meeting basic human needs. 2 lecture/discussions, 2 three-hour laboratories. Prerequisites: RS 301, 302 or permission of instructor(s). Concurrent enrollment in RS 303/303L required.

RS 311/311L Regenerative Principles and Processes (3/2)

Introduction to regenerative principles and practices to support daily life: providing food, energy, shelter and water and managing wastes. Concepts of recycling and self-renewal applied to the human environment and their ethical and social implications. Practical application of regenerative practices within the residential setting. 1 three-hour lecture/problem-solving, 2 three-hour laboratories. Prerequisites: Junior standing and fulfillment of General Education Track B Area 2a, 2b, and 2c requirements.

RS 312/312L, 313/313L Regenerative Practices and Technologies (3/2), (3/2)

Learning through experience the tasks involved in applying regenerative practices and technologies: produce and prepare food and manage energy, water, wastes and shelter. Exploration and discussion of scientific and social concepts underlying these activities: 1 three-hour lecture/problem-solving, 2 three-hour laboratories. Prerequisite: RS 311 or RS 303 and instructor's permission.

RS 421/421L Organization for Regenerative Practices (3/2)

Development of leadership skills related to the organization and direction of group regenerative practices. These include food production planning, waste and water management, energy systems development and shelter operations: 1 three-hour lecture/problem-solving, 2 three-hour laboratories. Prerequisite: RS 313 or instructor's permission.

RS 422, 422L, 423, 423L Invention, Development and Implementation of Regenerative Systems (3/2), (3/2)

Application of creative and systematic thinking to conception and development of life support technologies. Testing and monitoring of innovative practices and presentation and dissemination of results. Economics, social and political institutions and their roles in implementation: 1 three-hour lecture/problem-solving, 2 three-hour laboratories.

RS 400 Directed Study in Regenerative Practices (2–4)

Individual study by the student on a subject agreed upon by student and advisor. Prerequisites: RS 111, 301 and 302 or RS 311.

RS 499 Special Topics in Regenerative Studies (1–4)

Explorations of topics of current interest related to regenerative practices or technologies or their roles in society. May include lectures, seminars and/or laboratories on a schedule to be determined by the instructor. Prerequisites: RS 111 and 301 or RS 311 or permission of instructor.