

CENTER FOR REGENERATIVE STUDIES

Joan Safford, Director

Christoffel den Biggelaar, Center for Regenerative Studies
 David Adams, Philosophy
 Brooks Cavin, Architecture
 Ed Cogger, Animal and Veterinary Science
 Jerry Mitchell, Urban and Regional Planning
 Ronald D. Quinn, Biological Sciences (Sabbatical Leave 1998/99)
 Michael Shelton, Mechanical Engineering
 Dorothy Wills, Anthropology
 Lin Wu, Geography
 Donald Wells, Civil Engineering

The goals of the Center for Regenerative Studies (CRS) are to develop and teach interdisciplinary ways of thinking and acting needed to lead society into a sustainable future. As citizens of a changing planet, today's students face new social and technological challenges. Due to environmental and economic pressures, there are increasing demands for professionals knowledgeable in 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, contribute to the conservation of energy and materials. The Center is particularly concerned with the means of 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. 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. Faculty members and students from a range of disciplines and professions participate in these courses and research programs.

At the core of the Center's program is a community where 20 students reside and apply regenerative principles and practices to their daily activities. Their activities include regulating the thermal environment of solar heated and cooled buildings, operating solar electrical generators, growing food, and recycling 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 for students residing at the CRS community as well as for other Cal Poly Pomona 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. A program of study leading to the Master of Science degree is being developed. Information regarding planned implementation of the master's program is available at the Center's office.

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, and 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:

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| 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 | 3/2) |
| Regenerative Practices and Technologies | RS 313/313L | (3/2) |
| Organization for Regenerative Practices | RS 421/421L | (3/2) |
| Invention, Development and Implementation | | |
| of Regenerative Systems | RS 422/422L | (3/2) |
| Invention, Development and Implementation | | |
| of Regenerative Systems | RS 423/423L | 3/2) |
| Directed Study in Regenerative Practices | RS 400 | (2-4) |
| Special Topics in Regenerative Studies | RS 499 | (1-4) |

COURSE DESCRIPTIONS

RS 111 Introduction to Regenerative Studies (4)

A survey of the global physical, biological, and 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. 2 two-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 manage 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 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 permission of instructor.

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 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 permission of instructor.

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 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.

