JOHN T. LYLE CENTER FOR REGENERATIVE STUDIES

<http://www.csupomona.edu/~crs>

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The John T. Lyle Center for Regenerative Studies (LCRS or the Lyle Center) is an interdisciplinary university-based setting for education, demonstration and research in regenerative and sustainable systems. Students from all majors on campus can take courses and a community of 20 residents lives on the site working with regenerative systems as part of their daily lives. The term "regenerative" was chosen for the Lyle Center to emphasize the intention of the design to restore natural systems, not merely sustain them, while integrating the needs of the human community.

The design of the 16-acre site provides a living laboratory for faculty, students and visitors to study passive solar designed buildings, renewable energy capture, water recycling, nutrient cycling, food growing systems, aquaculture (fish production), native habitat and human communities. All of these systems have implications for human society, and there is an increasing demand to educate professionals about sustainable systems and ways of complex problem solving using regenerative principles as we face the environmental and social challenges of the 21st century. The Lyle Center is a hub of activity, linking those with a diverse range of knowledge and expertise from many different disciplines and focusing their activities of teaching, learning and research toward developing sustainable and regenerative solutions. Lyle Center courses are open to students in all majors on campus, and are team taught by faculty from many different disciplines within the university.

A sequence of 300 level courses provides a basic introduction to regenerative and sustainable principles and can be used to fulfill a number of different General Education requirements. 400 level courses can be used as Directed Electives and are more advanced application courses. Labs and lectures can be taken separately. Please check with faculty regarding prerequisites: these can be waived based on the previous experience and knowledge of the individual student.

A 30-unit minor in Regenerative Studies is available. A program of study leading to a Masters in Regenerative Studies degree has been approved and begins in fall 2004. Information regarding the master's program is available at the Lyle Center office or on website.

The John T. Lyle Center for Regenerative Studies is expected to support at its full capacity 80 to 90 people employing regenerative practices and technologies. The models being developed will have application at many different scales, ranging from the household level and the university to community, regional, and global levels.

The Lyle Center's emphasis on restoring natural systems while integrating the needs of the human community reveals compelling societal challenges. One of the most important questions facing us as a society is this: can we design human habitat that is truly sustainable and ultimately regenerative? The Lyle Center is an exploration of the possibilities of designed human ecosystems and the operation of human communities that are supported by healthy, functioning natural systems that are improved, rather than degraded by our presence.

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	(4)
Shaping A Sustainable Future	RS	303	(4)
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, and the social context within which they occur, which provide resources and processes to meet the basic needs of human communities. These systems and processes provide water, food, energy, shelter, atmosphere, and a functional landscape. 4 lecture discussions. Open to all majors. Prerequisites: one GE course from each of the following Sub-areas: A1, A2, A3 and B1, B2, B3 or equivalent. GE Synthesis course for Sub-area B4.

RS 302 Global Regenerative Systems (4)

Study of the institutional factors affecting the implementation of 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. 4 lecture discussions. Open to all majors. Prerequisites: One GE course from each of the following Sub-areas: A1, A2, A3 (ENG 105) and D1, D2, D3 and junior standing. GE Synthesis course for Sub-area D4.

RS 303 Organization for Regenerative Practices (4)

Investigation of sustainable organizing processes for regenerative practices. The cultural and institutional organizing processes are examined at the global, multi-national, national, regional, local, family, and individual levels. These processes are analyzed in relation to population, food production, resource and waste management, energy systems and shelter. GE Interdisciplinary Synthesis course for Area C4 or

D4. 2 two-hour lecture discussions. Prerequisites: junior standing; completion of GE Area A and 2 lower division sub-areas in Area C or Area D.

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 one G.E. course from each of the following subareas, A1, A2, A3, and B1, B2, B3 or equivalent.

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.

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 400 Directed Study in Regenerative Practices (2–4)

Individual study by the student on a subject agreed upon by student and advisor. Total credit limited to 4 units, with a maximum of 2 units per quarter. Prerequisites: RS 301 and 302 or RS 311 or permission of instructor.

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. Total credit limited to 8 units, with a maximum of 4 units per quarter. Prerequisites: RS 301 or RS 311 or permission of instructor.