

## JOHN T. LYLE CENTER FOR REGENERATIVE STUDIES

www.csupomona.edu/~crs

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The mission of the John T. Lyle Center for Regenerative Studies is to advance the principles of environmentally sustainable living through education, research, demonstration and community outreach. The Lyle Center uses the term "regenerative" to emphasize the development of systems that restore and revitalize themselves, ensuring a sustainable future. Students in regenerative studies courses are challenged to assess the impact of society on the environment, and consider how communities can be supported by healthy, functioning natural systems that are improved, rather than degraded by our presence.

Situated on 16 acres within the Cal Poly Pomona campus, the Lyle Center is designed to serve as a living laboratory and center for teaching and research related to environmentally sustainable living. The Center showcases a wide array of regenerative principles, including passive-solar building design, solar energy technology, organic agriculture, and native plant community restoration. Students have the opportunity to reside and/or work at the Center. The Lyle Center has earned an international reputation for its innovative educational programs that focus on hands-on activities, and has hosted visiting scholars and students from around the world.

The Lyle Center offers unique interdisciplinary education through its undergraduate minor program, which prepares students to integrate regenerative theories and practices into a wide variety of professional fields. A series of 300-level courses provides a basic introduction to regenerative principles and can be used by all undergraduate students in the University to fulfill a number of general education requirements. More advanced 400 level courses can be used as directed electives. Please check with faculty regarding prerequisites: these can be waived based on previous experience or knowledge of the individual student.

### COURSES IN MINOR

The Minor in Regenerative Studies requires a total of 24 units. In consultation with the program advisor, each student will select from the following courses a total of at least 24 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) |
| Current Applications in Regenerative Studies . . . . . | RS | 414/414L | (3/1) |
| Sustainable Communities . . . . .                      | RS | 450      | (4)   |

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|--|----|-----|-------|
| Ecological Patterns and Practices . . . . .        | RS | 465 | (4)   |
| 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, B4 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, B4 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 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: permission of instructor.

**RS 414/414L Current Applications in Regenerative Studies (3/1)**

Application of regenerative processes and technologies to contemporary community, energy, food, water, waste, and biotic systems. Includes laboratory component for hands-on learning. Specific topics vary by term. See Lyle Center office for topics offered. 1 three-hour lecture and 1 three-hour laboratory. Concurrent enrollment required. May be repeated for a maximum of 12 units.

**RS 450 Sustainable Communities (4)**

Historical survey and cross cultural study of sustainable communities in relation to their particular built form. Examination and analysis of intentional communities as models of traditional and/or alternative patterns. Exploration of legal and economic organization of land holding patterns, housing and community design features and values inhibiting or facilitating experimentation. 4 lecture discussions. Prerequisites: One GE course from each of the following Sub-areas: A1, A2, A3, and C1,

C2, C3 and D1, D2, D3. Interdisciplinary GE Synthesis course for Sub-area C4 or D4.

**RS 465 Ecological Patterns and processes (4)**

Investigation of principles in the emerging field of landscape ecology, and their relationship to planning, design and management decisions upon the land. Course covers landscape-scale structure, function and change in the environment, and the implications for environmental sustainability. 2 two-hour lecture-discussions. Prerequisite: RS 301 or RS 501 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: permission of instructor.

*Graduate courses are listed in the Graduate Studies section of this catalog.*

