

Pratt Institute: Syllabus

**Pratt Institute Graduate Center for Planning & Environment/School of Architecture
Semester Spring 2006**

EMS 612- Environmental Mini-Course: Life Cycle Analysis

Credits - 1 Location – Pratt Higgin Hall Day and Time – Tuesday, 5:30 – 8:00
Type of Course - Lecture/Seminar/Mini-Course Elective
Enrollment Capacity - 15
Professor: Mathy Stanislaus; e-mail mstanislaus@allegianceresources.com
Coordinator: Eva Hanhardt evahanhardt@mas.org (work) evahanhardt@earthlink.net (home)
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MINI-COURSE DESCRIPTION:

Life Cycle Assessment is a systematic set of procedures for compiling and examining the inputs and outputs of materials and energy and the associated environmental impacts directly attributable to the functioning of a product or service system throughout its life cycle. Life-cycle assessments involve cradle-to-grave analyses of production systems and provide comprehensive evaluations of all upstream and downstream energy inputs and multimedia environmental emissions. This course will offer students an examination of the theory, methodology and applications of life cycle analysis..

COURSE REQUIREMENTS:

The class will include readings, lecture, class discussion, and, where appropriate, site visits and/or field work.

- There is a course reader/ textbook - Primary Reading Materials: Environmental Life Cycle Analysis, David F. Ciambrone, Lewis Publishers (required purchase by students); Draft Report of the LCM Definition Study, UNEP/SETAC Life Cycle Initiative.
- Additional selected individual readings will be handed out weekly.
- Students will be provided with a listing of web pages relating to each of the topics
- Selected additional readings will be provided via handout or –e-mail

Students are expected to complete all assigned readings, participate in class discussions . Students must stay current with required readings as the quality of class discussions depends on all students staying abreast of the reading. Most of the required readings are in the required Textbook/Reader although additional readings may be handed out in class.

Final - Students will be required to prepare a 5 page final application of the materials/skills covered in the course in the form of: drawings, written material, models, charts, tables, and/or other presentation methods. Students will also be required to provide a digital version of the above final assignment

COURSE OUTLINE:

Week 1 – Introduction – What is Life Cycle Management?

Week 2 – Topic Lecture: Life Cycle Management History, Assessment Methodologies, Examples of its Applications; Readings Chapters, 1-3, 10 Environmental Life Cycle Analysis, Ciambrone; Chapters 1 –3; Draft Report of the LCM Definition Study, UNEP/SETAC Life Cycle Initiative.

Week 3 – Application of Life Cycle Analysis to Recycling and Waste Management, Manufacturing, Formulation and Processing. Readings: Chapters 5, 6, 9, Environmental Life Cycle Analysis

Week 4 – Application of Life Cycle Analysis to EIS and Land Use Decisions; the intersection of the precautionary principle and life cycle analysis; Readings TBD

Week 5 – Final Integrative Class; Final assignment Due: Application

GOALS/LEARNING OBJECTIVES:

As an environmental specialty Mini-Course, the goal of the class is to familiarize students with relevant concepts, literature, and practices, both historical and current, relating to the Environmental Topic XXXX at the local, regional, national and global levels. Taught by leading NYC practitioners in the field the mini-courses give students concrete technical and analytical skills and an understanding of real world applications that will be important to their work as planners, architects, designers and/or environmentalists. Professors/Instructors have been selected who have significant professional experience with the topic they are teaching. Students will be required to critically evaluate what they have read and heard. In addition, the class will give students an opportunity to learn how to express their ideas verbally and through the final application assignment.

The purpose of the final assignment is to give the students personal experience in applying the knowledge and skills presented in the course to a real site and situation. Students will learn the fundamentals of gathering and applying environmental information; evaluation of appropriate methods and technologies; presentation of ideas and proposals in verbal, visual and written form.

METHODS OF ASSESSMENT:

50% of a student's grade will be for the quality of contributions to class discussion.

50% of a student's grade will be for the quality of the final application

SUPPLEMENTALS: BIBLIOGRAPHY - OTHER REFERENCES:

Primary Reading Materials: Environmental Life Cycle Analysis, David F. Ciambrone, Lewis Publishers (required purchase by students); Draft Report of the LCM Definition Study, UNEP/SETAC Life Cycle Initiative.