

Rutgers, the State University of New Jersey
School of Environmental and Biological Sciences
Environmental Issues of the United States, 11:573:202

Instructor:

Frank Gallagher, (Gallagher@sebs.rutgers.edu)

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Office Place/Hours – Meteorology Building, 80 Nichole Street, Tues. 10-11:30; Fri. 9-11

Location/Time:

Food Science 101

Tuesday, 3d Period (12:35-1:55); Friday, 2d Period (10:55-12:55)

Course Overview:

This course is an analysis of the interaction between land, people and the built environment. A broad spectrum of environmental issues are surveyed through lecture, group discussion and writings. The policy and regulatory framework driving environmental protection and natural resource management are examined. Most of the information covered during the course is current and cannot be found in a text book.

Course Schedule:

January - class begins (Tues.17th)

February - project proposal (Tues.7th)/first paper due (Tues.21th)

March – Lester Brown Brief (Tues.28th)

April - second paper due (Tues. 11th)

May – Term Project/Paper (Tue. 2nd)/ course recollection (Fri. 6th)

Required Texts:

The two required books for the course are:

[A Sand County Almanac: With Essays on Conservation from Round River](#), A. Leopold (SCA)

[First Along the River](#), B. Kline (FAR)

If they are not in the bookstore. They are available on line.

Learning Goals:

Students will develop the skills to interpret science, technology, and cultural context to critique, design, and to envision and develop innovative solutions in sustainability, land stewardship, and other contemporary urban challenges. Students will also gain an understanding of environmental planning, physical planning and policy as it relates to land use issues.

Objectives and Assessment:

Current environmental issues are reviewed and objectively analyzed using a class derived environmental ethic as the primary metric. Student will be asked to measure our current approach to each issue against this metric. Each lecture has a link to important information and lists the background reading that is required prior to each class.

Learning Objective I: Students gain an appreciation of our relationship with the land, which is or should be driven by the land ethic. A land ethic is derived and the current context is developed.

Assessment: Elements of stewardship reflective of a land ethic, based upon ecological principles, will be present in the first discussion paper. An assessment of the existing and projected demographic the history

of the environmental movement and demographic trends at the regional and global scale will be demonstrated within the Lester Brown Brief.

Learning Objective II: Students will gain a working knowledge of the policy and regulatory framework driving the management of natural resources.

Assessment: The laws and regulatory statutes reflective of the environmental movement that regulate our consumption of forest, wildlife, and soil will be identified in the reading reviews. An awareness and knowledge of the industrial history and current land use trends will be articulated in the reading reviews, and in the discussion papers.

Learning Objective III: Students will gain a working knowledge of the international initiatives and controversy surrounding climate change, and energy consumption.

Assessment: The characteristics of and the international agreements made concerning climate change and energy consumption will be identified in the reading assignment reviews. A functional understanding of the history and current trends in climate change will be exhibited in the second discussion paper.

Learning Objective IV: Students will gain a practical understanding of use issues associated with water quality and quantity. In addition the students will synthesize all of the course elements through an examination of the concepts of sustainability and a sense of place.

Assessment: An ability to clearly articulate the state of the human/environment relationship will be examined in the term project.

Reading Summaries:

Reading assignments are given for each week. An oral review will be conducted at the beginning of each class. You are expected to lead at least 5 over the course of the semester. They are not assigned you are expected to volunteer. (check)

Discussion Papers:

Most topic reviews will include a small group discussion session. Two papers, derived from these discussions are required. These papers contain a brief overview of the topic, the views of the group and your opinion. They should be approximately 1500 words. (50 pts. each)

Term Paper or Project Proposal:

The most effective way to learn something is to "do it". Experience is not only the best teacher it is the lens through which we create ourselves. Your project proposal is a brief written (approximately 500 word) description of your project. (25 pts.)

Term Paper or Project:

A term paper or project is also required. Projects are preferred. A project/paper must be based on one of the critical issues covered in class. It should cover the issue in depth. Documentation of the project will depend upon the type of work that is undertaken. Papers or projects must be approved before you start as per above. If a paper is chosen it should be between 3,000 and 5,000 words. (200 pts.)

Lester Brown Brief:

‘Lester R. Brown, Rutgers BS 1955 Agriculture, is arguably the world’s most influential environmentalist. In 1974, he founded the Worldwatch Institute, the first research institute devoted solely to the analysis of global environmental issues. In 2001, Brown founded the Earth Policy Institute to provide a vision and a road map for achieving an environmentally sustainable economy’. Review one of one of Lester Brown’s many predictions and potential solutions. Deliverables include a proposal of approximately 1,000 words and a final paper of approximately 3,000 words. (100 pts.)

Lectures Readings and Other Assignments:

Wk	Date	Activity	Readings and Assignments:
1	1/17	Lecture: Issues we care about / Land Ethic	FAR Chapters 1,2,3 SCA, The Land Ethic . Your environmental ethic? (take the survey Sakai)
2	1/24	Lectures: Establishment of the Land Ethic Population Dynamic	FAR-Chapters 4,5,6) Population Dynamics The Earth Charter
3	1/31	Lecture: Agriculture and GMO	Soil and Sustainable Agriculture / GM Debate GMO Pros and Cons
4	2/7	Lectures: Biological Communities, Biome, Landscape and Urban Ecology Lester Brown Reading Room Visit	FAR-Chapters 7,8,9. SCA-Arizona and New Mexico Biological Communities (pgs. 1-9) Understanding invaded urban 'wild lands' as novel communities
5	2/14	Lectures: Biodiversity / Land Use and Open Space. Project Proposal Due 2/14	SCA-The Sand Counties, Odyssey Open Space , Biodiversity
6	2/21	Lectures : Forestry Discussion Field Trip Heyler Woods Paper 1 Due	SCA-February, March, April and May) Forestry/ Sustainable Forest / Paper Wildlife / The Twins
7	2/28	Lecture: Wildlife and Re-wilding Lester Brown Proposal Due	SCA-65290, Wildlife in America SCA-The Deer Swath, Goose Music Land Use
8	3/7	Lecture: Introduction to Wetland Design Site Visit II: Livingston Preserve	SCA-Wilderness Preserving Nature
9	3/21	Lecture: Hazardous Waste Brownfield Redevelopment	NJ Brownfield Act Liberty State Park Agreements (Sakai)
10	3/28	Lecture: Air Pollution Lester Brown Brief Due	SCA –June Air Pollution GC
11	4/4	Lecture: Climate Change	National Climate Assessment Climate Change
12	4/11	Lecture: Energy Discussion Paper 2 Due	Energy Carbon Calculator.
13	4/18	Lecture: Water Pollution / Site Visit III: Raritan River	Water Pollution Water Use and Management China's Poisonous Waterways
14	4/25	Lecture: The World Without Us.	Readings (Sakai resource): Ascension Island
15	5/2	Reading Day Project or Paper Due	Readings (Sakai resource): "Let No Man" World Watch Institute
16	5/9	Course Recollection Due	

Grade Calculation:

Reading Summaries. _____ 50 pts.

Final Brown Brief _____ 100 pts.

Discussion papers

(2 @ 50 pts. each) _____ 100 pts.

Project/Term Paper _____ 200 pts.

Project Proposal _____ 25 pts.

Course Recollection _____ 25 pts.

Totals: 500-450 = A, 449-400 = B, 399-350 = C, D's and F's are not acceptable.

Departmental Grading Guidelines:

While the assignment of grades is ultimately the purview of the instructor, the department uses the following guideline for understanding appropriate grading in its courses:

A- Outstanding - This not only means fulfilling the requirements, but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner,

B- Very Good - The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner. The projects and in-class performance reveal a solid understanding of the issues and related theories or literature.

C- Acceptable - The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class display a basic familiarity with the relevant literature and techniques.

D- Unacceptable - The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D's in required classes.

F- Failure - The student has demonstrated a lack of understanding or familiarity with course concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.

Attendance:

Class attendance is Mandatory. A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to be in attendance at all required classes and trips. All personal plans should be made in accordance with the class schedule.

Attendance and active participation in class is a fundamental part of design learning. The interaction, discussion, and design activity that takes place during class will be critical to both the development of your design for this class, but also your development as a designer. Unexcused absences are not permitted. If you miss class for illness or an emergency, please provide a written explanation of this absence to the instructor, preferably before the class missed, but no more than a week after the absence.

Personal Circumstances:

If you encounter any personal circumstances that inhibit your ability to fulfill the requirements of this course, you should contact the Instructor immediately. Likewise, any student with a special need, circumstance or disability should make an appointment with the Instructor during the first week of class.

Accommodations for Students with Disabilities:

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

Academic Integrity

The intentional copying of another student's file [work] or a portion of a file [work] and representation of the work as your own work is in direct violation of the University Integrity Policy: Plagiarism: the representation of the words or ideas of another as one's own in any academic work. It is a violation of academic integrity for a student to aid others in violating academic integrity. A student who knowingly or negligently facilitates a violation of academic integrity is as culpable as the student who receives the impermissible aid, even if the former student does not benefit from the violation.

As a result, any copying and/or "sharing" of exercises, homework assignments, and projects will be treated as Level 2 violations and subject to the sanctions as outline in the Integrity Policy:

1. A failing grade on the assignment.
2. A failing grade for the course.
3. Disciplinary warning or probation.

Work Becomes Department Property:

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department and may be retained in its archives for exhibition and accreditation purposes. All projects will be graded and returned to the student at a location designated by the instructor. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are OFF LIMITS to students.