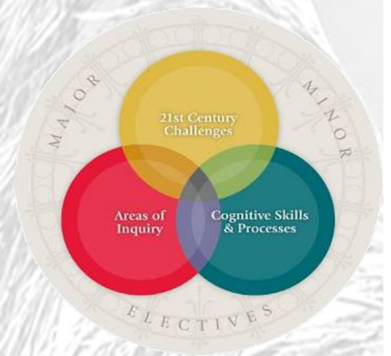


Rutgers The State University of New Jersey
School of Environmental and Biological Sciences
Environmental Issues of the United States
11:573:202



Instructor:

Frank Gallagher, Ph.D.
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Department of Landscape Architecture
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Office Place/Hours – By Appointment

Location/Time:

Monday and Thursday 3d Period (12:10-1:30)

Course Overview:

This course is a writing intensive 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 textbook.

Learning Goals:

1. Students will analyze the relationship that science and technology have to a contemporary social issue. To interpret science, technology, and cultural context to critique, design, and to envision and develop innovative solutions in sustainability, land stewardship, and other contemporary environmental challenges. (Aligned with Core Goal Contemporary Challenges C)
2. Students will be able to effectively communicate, in standard written English, to a general audience, and respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision. They will be able to articulate conflict resolution approaches to the various issues in written form. (WCd).

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 and inherent conflicts 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. The role of carbon sequestration through forest management will be articulated.

Learning Objective IV: Students will synthesize various course elements through an examination of the concepts of sustainability and a sense of place, within the term project.

Assessment: An ability to clearly articulate both orally in an oral presentation and written form the state of the human/environment relationship will be examined in the term project.

Note: This course satisfies the SEBS Contemporary Challenges Core Curriculum Learning Goal and requires a familiarity with current critical environmental issues. This course also fulfills the Wcd Core Curriculum Learning Goals. As such it is writing intensive with the Lester Brown Brief and the Term Project/Paper requiring several written iterations to be submitted. The Discussion Papers are can also be considered iterative the second building upon the first.

Required Texts:

The two required books for the course are:

[A Sand County Almanac: With Essays on Conservation from Round River](#), A. Leopold (SCA) ISBN 0-345-3405-3

[First Along the River, B. Kline](#) (FAR) 978-1-4422-0399-0

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

Course Requirements:

Reading Response

Reading assignments are given for each week. Most provide background and context for the class discussions. However, in several cases a written response is required. These are posted on Canvas in the assignment folder. In addition, you will be assigned two reading for which an analytical diagram and a five minute presentation is required.

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) not including the bibliography. While the discussion papers address different topics they are both written a technical style. From this perspective they are assessed collectively and improvements in style, format, grammar, and accurately applies appropriate conventions for attribution and citation. In addition, the second discussion paper whether it is focused on air quality or energy must include a connection to the Global Climate Change issue.

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. This year the paper/project will be developed from the Rutgers Climate Action Plan (Module/Readings/RU Climate Action) Your project proposal is a brief written (approximately 500 word) description of your project. (25 pts.) While brief the proposal should be written in a technical style, appropriately formatted, using appropriate conventions for attribution and citation.

Term Paper or Project Written Draft

Even if your term project is physical in nature, it must have a written report component. The draft is expected to include an index, an outline and the literature research done for the project. This draft must also include a bibliography of source material you have examined to date. (50 pts.) While not complete the draft should be written in a technical style, appropriately formatted, using correct grammar, using appropriate conventions for attribution and citation.

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 and outline and a final paper of approximately 3,000 words. (50 pts.) The final paper should be written in a technical style, appropriately formatted, using correct grammar, using appropriate conventions for attribution and citation.

Term Paper or Project

A project/paper must be based on one of the RU Climate Action Plan. 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 your proposal. If a paper is chosen it should be between 4,000 and 5,000 words. (125 pts.) The final project or paper should be written in a technical style, appropriately formatted, using appropriate conventions for attribution and citation.

Detailed Schedule:

Lectures Readings and Other Assignments:

Week	Date	Activity	Readings and Assignments:
1	1/18	Lecture: Issues we care about / Land Ethic Reading Response 1	FAR Chapters 1,2,3 SCA, The Land Ethic . Lynn White (Canvas Additional Readings)
2	1/22	Lectures: Establishment of the Land Ethic Population Dynamics	FAR-Chapters 4,5,6) Population Dynamics The Earth Charter (Canvas Additional Readings)
3	2/5	Lecture: Agriculture and GMO	Soil and Sustainable Agriculture / GM Debate GMO Pros and Cons
4	2/12	Lectures: Biodiversity / Forestry Lester Brown Reading Room Visit Project Proposal Due 2/12	SCA-The Sand Counties, Odyssey Biodiversity

5	2/19	Lectures: Biological Communities, Biome, Landscape and Urban Ecology Reading Response 2	FAR-Chapters 7,8,9. SCA-Arizona and New Mexico Natural Transformation of Post-Industrial Lands (Canvas Additional Readings)
6	2/26	Trip Heyler Woods Lecture: Wildlife Paper 1 Due	SCA-February, March, April and May) Forestry/ Sustainable Forest / Paper Wildlife / The Twins (Canvas Additional Readings)
7	3/4	Lectures: Public Trust, Open Space / Urban Green Space	SCA-65290, Wildlife in America SCA-The Deer Swath, Goose Music Land Use Open Space
8	3/11	Lecture: Introduction to Wetland Design Site Visit II: Livingston Preserve	FAR 10, 11 and Conclusion. SCA-Wilderness Preserving Nature
9	3/18	Lecture: Hazardous Waste Brownfield Redevelopment	NJ Brownfield Act Liberty State Park EIS (Canvas Additional Readings)
10	3/25	Lecture: Air Pollution Lester Brown Brief Due	SCA –June Air Pollution
11	4/1	Lecture: Climate Change Term Paper Project Draft Due	National Climate Assessment Climate Change
12	4/8	Lecture: Energy Discussion Paper 2 Due	Energy Carbon Calculator.
13	4/15	Lecture: Water Pollution / Site Visit III: Raritan River	Water Pollution Water Use and Management China's Poisonous Waterways
14	4/22	Lecture: The World Without Us.	Readings (Canvas Additional Readings): Ascension Island
15	4/29	Project or Paper Due	Readings (Canvas Additional Readings): “Let No Man” World Watch Institute
16	5/6	Course Recollection Due	

Grade Calculation:

Assignments	Learning Goal	Learning Objective	Points	% Final Grade
Reading Summaries	1	I,II	25	0.07
Reading Presentation	1,2	II,III	10	0.10
Discussion Paper (2@50)	1,2	I,II	100	0.28
Proj/Paper Proposal	1	II,IV	25	0.07
Proj/Paper Draft	1,2	II,IV	50	0.14
Proj/Paper Final	1,2	II,IV	125	0.35
Course Reflection			25	0.07
			360	

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

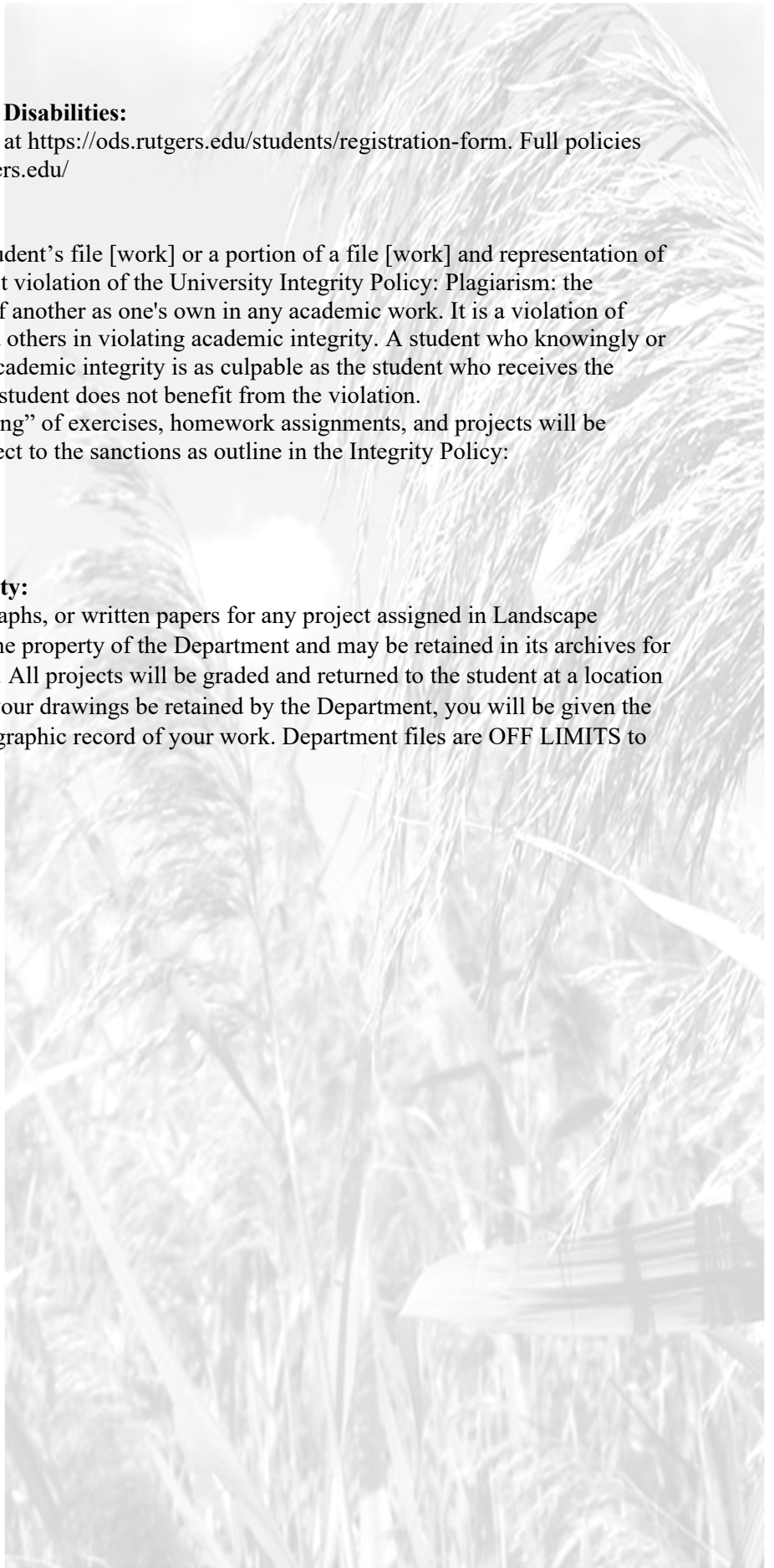
The intentional copying of another student's file [work] or a portion of a file [work] and representation of the work as your own work is in direct violation of the University Integrity Policy: Plagiarism: the representation of the words or ideas of another as one's own in any academic work. It is a 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.



**Rutgers, the State University of New Jersey
School of Environmental and Biological Sciences**

**Environmental Issues of the United States, 11:372:202
Assessment**

Instructor –Dr. Frank Gallagher Gallagher@sebs.rutgers.edu 609 439 6527
Office Place/Hours – Meteorology Building, 80 Nichole Street, Hours-Tues. Thu. 9-12

Learning Goals:

21st Century Challenges:

- b.) Analyze a contemporary global issue from a multidisciplinary perspective.
- c.) Analyze the relationship that science and technology have to a contemporary social issue.

Natural Sciences:

- e.) Understand and apply basic principles and concepts in the physical or biological sciences.
- f.) Explain and asses the relationships among assumptions, method, evidence, arguments, and theory in scientific analysis

Social and Historical Analysis:

- j.) Identify and critically assess ethical issues in social science and history.

Social Analysis:

- n.) Apply concepts about human and social behavior to particular questions or situations.

Learning Objectives, Assignments and Assessment:

Learning Objective I:

Students gain an appreciation of our relationship with the land, one which is or should be driven by the land ethic. A land ethic is derived and the current context is developed. (aligns with learning goals e and j)

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 history of the environmental movement and demographic trends at the regional and global scale will be demonstrated within the midterm exam.

Results:

Outstanding:
Very Good:

Acceptable:
Unacceptable:
Failure:

Notes: Integrating the readings into the class discussion at a greater depth will help enhance the historical perspective.

Core Curriculum Learning Goal(s)

c [21C], j + n [SCL]

Assessed:

Please note the **total number of students assessed***, and the **raw number** scoring at each performance level on the Core goal(s). **PLEASE DO NOT USE PERCENTAGES, OR COMBINE MULTIPLE GOAL ASSESSMENT RESULTS IN ONE SUMMARY LINE.** ⁱ

<i>c. Analyze the relationship that science and technology have to a contemporary social issue.</i>					
	NO. OF STUDENTS ASSESSED	EXCELENT	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
Summary Assessment On Goal	22	6	12	2	2
<i>If not using CRC rubric, criteria for performance</i>					

<i>j. Identify and critically assess ethical issues in social science and history.</i>					
	NO. OF STUDENTS ASSESSED	EXELENT	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
Summary Assessment On Goal	22	6	17	4	2
<i>If not using CRC rubric, criteria for performance</i>					

<i>n. Apply concepts about human and social behavior to particular questions or situations.</i>					
	NO. OF STUDENTS ASSESSED	EXCELENT	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
Summary Assessment On Goal	22	6	12	2	2
<i>If not using CRC rubric, criteria for performance</i>					

***If only a sample was used for scoring this Core Goal, please explain how the sample was chosen:**

Brief description of sampling process

If more than one person scored each work product, please indicate the number of scorers:

Plans for modification in light of results, if any:

Need to revalue the Lester Brown exercise

Report prepared and submitted
by:

Frank Gallagher