

Master of Science in Sustainability Management

(As of June 25, 2024)

Practicum on Practical Applications of Environmental Research - SUMA4734PS

Tuesday, 4-6pm, location TBD

1-3 credits

Elective

Instructor: Louise A. Rosen (
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Teaching Assistant: Desikan Jayaram (dj2658@columbia.edu)

Office Hours: Office hours by appointment.

Response Policy: Email is the preferred mode of communication for getting in touch with us. You should expect a response within 24-48 hours.

This is an inclusive class/classroom, and we are committed to ensuring that you are treated with respect and dignity. We aim to create an environment in which every individual has an equitable opportunity to participate, contribute and succeed in the class specifically and at Columbia in general. We encourage you to contact us at any time if you have any questions or concerns.

Course Overview

Research is the foundation of knowledge. The Practicum on Practical Applications of Environmental Research is a broad survey of the applications of academic, public and private research on the practice of sustainability management, sustainable development, and environmental policy. We'll explore how research is done in different settings, and how different practitioners approach environmental research to create real-world impact. The course will explore the full process of research - from grantmaking and project conceptualization to execution and implementation in organizational, national and international policy.

The Practicum on Environmental Research is a dynamic forum featuring a series of lectures and discussions by faculty, scientists, researchers and other sustainability practitioners both within Columbia University and from other institutions. These lectures emphasize key concepts in earth and environmental sciences and the social sciences relevant to sustainability practice, including introduction to grant writing, introductions to data sources, analytical methods, and decision tools. We will also discuss an emerging approach, co-production of knowledge, and international research cooperation.

Most class sessions will comprise a guest lecture followed by class discussion. Students will be expected to complete assigned readings and materials in advance and engage in class discussion. This course seeks to give students hands-on experience on conducting research and designing grant proposals. In their final deliverables, students will be asked to produce original research in groups, and the best papers will get the opportunity to be

published in a Columbia-sponsored academic website. Furthermore, the students will be introduced to grantmaking, will learn best practices and will be writing a grant proposal.

Learning Objectives

By the end of this course, students will:

- understand the process researchers from different disciplines go through throughout their research projects, from conceptualization to conclusion;
- develop critical skills necessary for grantmaking in academic and the private sector;
- analyze, present and communicate analysis, supported by data, in different formats (oral presentations, short-form summaries, term paper);
- identify the use of quantitative data and qualitative factors in advancing sustainability initiatives/policies;
- identify the importance of external stakeholder involvement and knowledge in addressing sustainability challenges;
- critically evaluate and analyze readings, other sources of information, and lectures around topics of sustainability science;
- synthesize, apply, and communicate sustainability knowledge to address complex sustainability challenges.

Readings

A full reading list will be provided at a later date, upon the lecturers' final confirmation.

Assignments and Assessments

| <u>1 Credit:</u> | <u>3 Credit:</u> |
|---|--|
| <ul style="list-style-type: none"> ● Discussion posts (4x/semester): 20% ● Midterm grant draft: 25% ● Final grant proposal: 40% ● Participation and attendance: 15% | <ul style="list-style-type: none"> ● Discussion posts (weekly): 15% ● Group colloquium: 15% ● Grant proposal: 15% ● Final research project: 40% ● Participation and attendance: 15% |

a. Discussion Posts

The students will be asked to come up with at least 2 questions for the lecturer based on the lecture's reading material and post them in the corresponding discussion post on Courseworks. This shall be done by 11:59PM, the Monday before the lecture. The questions will be sent to the lecturers prior to the class.

b. Grant Proposal

Throughout the semester, the students will be working on a grant proposal, with the aim of fine tuning their grantmaking skills and providing them with a tangible, transferable skill. This will be the main assignment for students taking the class as a 1 credit. Students will be asked to submit a midterm draft of up to 5 pages. Based on our comments, the students will be revising and expanding the grant proposal to up to 8 pages for their final grant proposal. Further information on the structure of the proposal will be provided separately.

c. Final Research Project

The students taking the course as a 3 credit course will be writing (in a group of 4-5 people) an independent research paper, consisting of 2 pages per team member (this does not include citations). The teams will be asked to participate in a colloquium - a session in which they will present their research to the class, and the rest of the class will be able to ask the team questions. The team presenting may not respond to these questions. During the semester, the teams will be asked to submit the following:

- Research topic and work divide (group report)
- Summary (group report)
- Midterm update - progress, work divide (individual report)
- Colloquium presentation

The best papers will have the opportunity to be posted on the Sustainability Policy and Management Research Program’s website, a Columbia Climate School research program. Further information about the research project will be provided separately.

Grading

The final grade will be calculated as described below:

FINAL GRADING SCALE

| Grade | Percentage |
|-------|-----------------|
| A+ | 98–100 % |
| A | 93–97.9 % |
| A- | 90–92.9 % |
| B+ | 87–89.9 % |
| B | 83–86.9 % |
| B- | 80–82.9 % |
| C+ | 77–79.9 % |
| C | 73–76.9 % |
| C- | 70–72.9 % |
| D | 60–69.9 % |
| F | 59.9% and below |

Course Schedule/Course Calendar

[List dates of each class meeting, final exam date: Topics and Activities; Readings should include page numbers and page counts; viewings should include time; assignments, projects, exams and due dates on an easy-to-read course timeline. Consult the Program Director as to whether full citations or abbreviations will be included in the course calendar grid. Sample:]

| Date | Topics and Activities | Assignments (due on this date) |
|------|------------------------------------|--------------------------------|
| 9/3 | Intro to class/ Guest lecture | |
| 9/10 | Sustainable Investing - Lisa Sachs | |
| 9/17 | Research Methodologies - Lisa Dale | Storyboard |

| | | | |
|-------|--|--|---|
| 9/24 | Grantmaking in the public and private sector - Andrew Miller and Manasi Gupta | 1 credit: Identify the center and project | 3 credit: Research project: topic, work divide Grant proposal: Identify center and project |
| 10/1 | Co-Production of Knowledge - Working with the Indigenous Community of Kotzebue - Ajit Subramaniam | | |
| 10/8 | Climate Adaptation and the Co-Production of Knowledge - Kristina Douglass | | |
| 10/15 | TBD | 1 credit: Grant proposal midterm draft | Grant proposal midterm draft, research project outline |
| 10/22 | Financial Environmental Research and Global Policy Formation - Mel Peh | | Individual check in (1 page max) |
| 10/29 | TBD | | |
| 11/5 | Election day - No class | Field trip Lamont - Optional (but recommended!- Friday, 11/15) | |
| 11/12 | Colloquium presentations | | 3 credit: colloquium, slides to be submitted by 11/11 at 11:59PM. |
| 11/19 | From Academia to the Public Sector - Urban Environmental Justice Research and Implementation - Sam Kay | | |
| 11/26 | TBD | | |
| 12/3 | Final class - Guest lecture | 1 credit: Final grant proposal | 3 credit: Group research paper, final grant proposal |

* Lecture topics and lecturers may change.

Course Policies

Participation and Attendance

The students are expected to complete all assigned readings, attend all class sessions, and engage with others in online discussions. If you need to miss a class for any reason, please discuss the absence with us in advance. Attendance will be taken, and any unexcused absences may lead to grade deductions.

Late work

Work that is not submitted on the due date noted in the course syllabus without advance notice and permission from the instructor will lead to grade deductions.

Citation & Submission

The grant proposal and final research paper assignments must use standard citation format (e.g., MLA, APA, Chicago) as endnotes, cite sources, and be submitted to the course website (not via email).

School and University Policies and Resources

Copyright Policy

Please note—Due to copyright restrictions, online access to this material is limited to instructors and students currently registered for this course. Please be advised that by clicking the link to the electronic materials in this course, you have read and accept the following:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

Academic Integrity

Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <https://sps.columbia.edu/students/student-support/academic-integrity-community-standards>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

Diversity Statement

It is our intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture.

Accessibility

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: <https://health.columbia.edu/content/disability-services>.

Class Recordings

All or portions of the class may be recorded at the discretion of the Instructor to support your learning. At any point, the Instructor has the right to discontinue the recording if it is deemed to be obstructive to the learning process.

If the recording is posted, it is confidential and it is prohibited to share the recording outside of the class.

SPS Academic Resources

The Division of Student Affairs provides students with academic counseling and support services such as online tutoring and career coaching: <https://sps.columbia.edu/students/student-support/student-support-resources>.

Columbia University Information Technology

[Columbia University Information Technology](#) (CUIT) provides Columbia University students, faculty and staff with central computing and communications services. Students, faculty and staff may access [University-provided and discounted software downloads](#).

Columbia University Library

[Columbia's extensive library system](#) ranks in the top five academic libraries in the nation, with many of its services and resources available online.

The Writing Center

The Writing Center provides writing support to undergraduate and graduate students through one-on-one consultations and workshops. They provide support at every stage of your writing, from brainstorming to final drafts. If you would like writing support, please visit the following site to learn about services offered and steps for scheduling an appointment. This resource is open to Columbia graduate students at no additional charge. Visit <http://www.college.columbia.edu/core/uwp/writing-center>.

Career Design Lab

The Career Design Lab supports current students and alumni with individualized career coaching including career assessment, resume & cover letter writing, agile internship job search strategy, personal branding, interview skills, career transitions, salary negotiations, and much more. Wherever you are in your career journey, the Career Design Lab team is here to support you. Link to <https://careerdesignlab.sps.columbia.edu/>