

## GUIDELINES FOR PROPOSAL SUBMISSION 2019–2020

### ENVIRONMENTAL SCIENCE B.S. SENIOR PRACTICUM GROUP PROJECT

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The UCLA Institute of the Environment and Sustainability (IoES) is seeking Environmental Science Senior Practicum Group Project proposals for the 2019–2020 academic year. The Practicum is a culminating research experience for students pursuing a B.S. in Environmental Science at UCLA. Projects are defined and conducted in collaboration with outside clients such as public agencies, private sector businesses, or non-governmental organizations, and will be undertaken between October 2019 and June 2020 by teams of 5–7 seniors under the supervision of an expert advisor. ***Proposals are due by 5 P.M. on Monday, May 13, 2019.***

An overview of the Practicum program, including examples and final written reports from past Practicum projects, can be found at <https://www.ioes.ucla.edu/envisci/senior-practicum/> and in the FAQ at <https://www.ioes.ucla.edu/envisci/practicum-client-faq/>.

#### **Group Project Objectives**

The goals of the Group Projects are to provide students with training and experience in multidisciplinary environmental problem solving in preparation for professional careers, and to provide a mechanism for students to learn important management skills, such as working as a team, developing leadership skills, managing time and financial resources, organizing, and negotiating. For clients, our overall goal is to provide valuable research, information, and analysis that contribute to creating a more sustainable future for Southern California and beyond.

#### **Desirable Group Project Attributes**

Students are expected to collaborate with outside clients to address an environmental science-based problem that can be successfully addressed and solved by a student team within the project timeframe. Projects require: an environment in which the students can learn to operate as an independent professional team; a spirit of trust and collaboration by all parties; client involvement appropriate to allow students to develop their own ideas and approaches; and, healthy and professional communication and rapport amongst all participants.

Appropriate project topics should address a current environmental problem that requires significant analysis to provide a recommendation to the client and other interested parties. Projects should involve quantitative analysis and scientific investigation in order to reach a policy or management recommendation—projects that involve analysis of existing but unanalyzed data in particular have yielded successful results in the past. It is important to keep the scope of any project realistic: projects should be manageable for a group of 5–7 seniors, spending approximately 25% of their time across three academic quarters (9 months), with a limited budget. As a result, projects that require a completion date well before June 2020 cannot be accommodated. Projects that involve analysis or an approach to addressing an environmental problem on a multi-year timeframe may be suitable in some circumstances provided the project can be divided such that each portion or year of work provides an independent, standalone project for a student team. However, continuation of a project beyond the first year is not necessarily guaranteed by initial acceptance.

Although it is useful to have external funding for the project for supplies, sampling and analysis, or other requirements, this is only one of several factors in project selection. If the proposal clearly requires substantial resources, however, a commitment for funding from the identified client may be necessary.

All client project proposers are strongly encouraged to contact the Environmental Science Practicum Director, Noah Garrison ([ngarrison@ioes.ucla.edu](mailto:ngarrison@ioes.ucla.edu)) as a first step in proposal development. The Proposal Selection Committee will evaluate the proposals and will determine those that have a higher probability of a successful outcome based on the criteria indicated below.

### **Proposal Format**

Proposals for projects are due by 5:00 P.M. on Monday, May 13, 2019 and are limited to *a maximum of three pages* (excluding references). **Proposals must follow this format and should include all the following:**

1. Title, describing the environmental science question to be solved.
2. Client Name
3. UCLA Faculty Sponsor (if applicable). It is not necessary to have a faculty sponsor identified in advance of project selection, but if a faculty member assisted in proposal preparation, please list their name.
4. Proposed Project
  - A. **Problem Statement and Background Information:** What is the overall context for this work? Where is the project location (if applicable)? In general, how did the problem evolve? What has been done to date, if known?
  - B. **Project Objectives:** What research questions need to be answered by this project?
  - C. **Project Significance and Impact:** Why is this work important? Who is the target audience/client? How will the results/outcome of this project be used by your organization?
  - E. **Stakeholders, other than the client:** What other people/groups would benefit from or be interested in the results of this work?
  - F. **Possible approaches and available data:** This section should be concise—one of the tasks for the student group project participants is to decide how best to meet the project objectives and develop their approach. If data sets are available, it is useful to identify them here.
  - G. **Deliverables:** What types of recommendations do you anticipate as an outcome from the project? Are there specific products that you expect to have at the end of the project, other than a final written report and oral presentation?
  - I. **References:** Please list appropriate scientific literature, working papers, websites, and other sources either referenced in the proposal or relevant to the proposed research.
5. Contact information of the proposer(s): Please identify the primary contact person(s) including name, job title, email, and phone number.
6. A commitment by the client to provide data and other information required for a successful project with no stipulation for a non-disclosure agreement or other restriction to publication of a final project report. Clients must also commit to providing a guest speaker to introduce the topic during the 2019 Fall Quarter. If the project requires data to be provided by the client, these data must be provided, in full, no later than 30 days after notification that the project has been accepted for the 2019-20 academic year. If data are not provided as specified, the project may be cancelled and another selected in its place.
7. Anticipated financial needs and sources of support—what resources would be available to the team to ensure the project's success?

A letter of commitment from the identified client(s) is necessary if funding is a requirement for a successful project. The letter of support does not count towards the 3-page proposal limit. Indicate expectations with respect to financial needs and any support commitments that exist or are very likely. This letter should be addressed to Dr. Cully Nordby, Academic Director, UCLA Institute of the Environment and Sustainability, and describe the financial needs of the project and the committed sources of financial support.

### **Project Selection Criteria**

Approximately 11 to 12 Group Projects will be undertaken during 2019–2020. Criteria used to select projects include:

- Extent to which the project represents a current environmental problem that requires a solution from the student group;
- Extent to which the project raises clear environmental science, policy, or management questions;
- Extent to which the project aligns with the expertise and capabilities of staff and faculty currently available to advise projects;
- Extent to which scope of project is feasible, given student experience and time availability;
- Extent to which the overall project logistics are practical; and,
- Extent to which the expected financial needs of the project may be met.

### **Selection Process**

All submissions will be reviewed by the IoES curriculum committee. Final selection will occur on a rolling basis, but is expected to be completed by approximately July 15, 2019.

### **Project Timeline**

After proposal preparation and selection, group projects are conducted in three quarters (Fall, Winter, and Spring) spanning the senior year of the students.

**Fall 2019 (October – December):** Students select a project area and write a thorough literature review of the topic, focused on one or more aspect of the question posed by the client. This work is done individually. Clients must commit to providing a guest speaker to introduce the topic to the Practicum class.

**Winter 2020 (January – March):** Students write proposals in response to the client question. Students present these proposals to the Practicum class (clients are welcome to attend the presentations). Any administrative permissions necessary for research are secured. Data collection starts.

**Spring 2020 (April – June):** Data collection continues. Students present preliminary results to the Practicum class. Students prepare draft report for advisor comment. Project reports are finalized and results presented in a public seminar. Students may give an additional presentation to clients.

### **Additional Information**

Additional information regarding Group Project goals or proposal preparation can be addressed to the Environmental Science Practicum Director, Noah Garrison ([ngarrison@ioes.ucla.edu](mailto:ngarrison@ioes.ucla.edu)).

**Submit proposals via email by 5:00 P.M., MONDAY, May 13, 2019 to:**

[ngarrison@ioes.ucla.edu](mailto:ngarrison@ioes.ucla.edu)