

2019 Application Form for ASC Grants for New Service-Learning Course Proposals

Application Deadline: April 8, 2019

You MUST use this form to submit your proposal. Please send submission (form and supplementary materials) to Linda Hood (hood.82@osu.edu), Executive Assistant to Associate Executive Dean Steven Fink.

1. **Working Title of Course Proposal** EARTHSC 2206S “Principles of Oceanography”
2. **Applicant Information**
 - Name: Elizabeth M. Griffith
 - Title: Assistant Professor
 - Department: Earth Sciences
 - Address: Mendenhall Laboratory Room 327, 125 South Oval Mall, Columbus, OH 43210
 - Phone: 614-688-4273
 - E-mail: griffith.906@osu.edu
3. **Course Description** *See attached document.*
 - Provide general description of course goals of proposed undergraduate course.
 - Provide general description of content of proposed undergraduate course.
 - Provide general description of service-learning component of the course.
 - Provide general explanation of how service-learning activities will contribute to the course goals.
 - Optional: Should you happen to already have a tentative syllabus (with course number), please provide it.
4. **Community Focus and Reciprocity** *See attached document.*
 - Identify and provide a brief profile of the intended community partner(s). (If a specific partnership has not yet been confirmed at the time of the grant proposal, provide a clear explanation of the kind of community partner(s) being sought and provide some examples of appropriate candidates for community partner(s).) *Community partners must be tax-exempt nonprofits or organizations with an easily identified public service component to their mission.*
 - Describe the community partners’ participation in the development of the service project.
 - How does the service project reflect priorities and stated goals/needs of community partners and collaborative planning by all partners?
 - Describe the anticipated community benefit and impact of the service project.
5. **Letter of Support from Department Chair** *See attached document.*
 - Letter should provide departmental support for offering the service-learning course on a continuing basis once approved.
 - Letter should also address how the course plays into the department’s curriculum. For example, will course be an elective that will count toward the minor? Will it request General Education status?

3. Course Description

The goals of the proposed Service-Learning version of the existing course EARTHSC 2206 are: (1) Students will develop a basic understanding of the oceans to evaluate current ocean topics in media and for future study, (2) Students will use the basic scientific method to evaluate oceanographic data, (3) Students will begin to understand how chemical, biological, physical and geological processes in the oceans interact and influence each other, and (4) Students will gain an appreciation for the complexity and beauty of the oceans and communicate this with others inside and outside of the classroom.

I propose to establish a Service-Learning version of the existing General Education Natural Science: Physical Science course EARTHSC 2206 “Principles of Oceanography.” This course is described as an “Introduction to the four basic disciplines of oceanography: geological, chemical, physical, and biological. Relevance of oceanography in contemporary issues.” It is a three-credit graded course.

I propose to develop a Service-Learning version of EARTHSC 2206 “Principles of Oceanography” using a team-based learning and teaching strategy. The **Service-Learning project** requires students to work in their teams to develop small scale (e.g., cart-based) exhibits demonstrating concepts from the oceanography course (such as photosynthesis and respiration in the oceans, upwelling, biological pump, solubility pump, ocean acidification, coral bleaching, paleoclimate reconstruction). To ensure linkages with larger themes rather than a focus on minutia, students will be asked to develop exhibits that explicitly address essential principles of Ocean Literacy (2013) including: “The Earth has one big ocean with many features”, “The ocean and life in the ocean shape the features of the Earth” and “The ocean is a major influence on weather and climate”. These mini-exhibits will be presented to youth in the community at free monthly Community Days for the Franklin Park Conservatory Children’s Garden (see letter of collaboration for a proposal submitted in July 2018 but not funded). The Conservatory is free for residents of Franklin County and the City of Columbus (with valid ID) on the first Sunday of each month (10am to 5pm). Select projects will be used by my research group and/or students from the course at other community events including World Oceans Day at the Columbus Zoo and Aquarium (see letter of collaboration) in June after the spring semester is over.

Teams will propose a project and budget and will be required to get feedback and approval from me on the content, how it will reach the target audiences, and general feasibility before constructing their exhibits. Students will keep a journal of regular posts in a portfolio of projects through u.osu.edu so that the student teams can reflect on the project from initiation to production to presentation and interaction with the community. I will seek funding for the projects (up to \$2k) from various funding sources including NSF as a supplement to an existing award for Spring 2020, School of Earth Sciences (including endowment funds), my \$2k award from ASC for teaching the course, Office of Service-Learning and other internal and external organizations with sustainable annual support as the goal. This will allow budgets of between \$100 to \$200 per team (anticipating up to 10 teams of 5 students for a 50 student undergraduate course).

The Service-Learning project will provide the students an opportunity to explore topics in oceanography that they can demonstrate and inform others contributing to the course goals – including “... develop a basic understanding of the oceans to evaluate current ocean topics in

media... gain an appreciation for the complexity and beauty of the oceans and communicate this with others inside and outside of the classroom.” Through working in teams to build the projects to interacting with the public when sharing the small-scale exhibits, the students will directly work on accomplishing these goals. I will also give them time to reflect on this project at various stages.

I do not have a tentative syllabus. I look forward to spending time this summer to develop the syllabus. The course number would be EARTHSC 2206S.

4. Community Focus and Reciprocity

Our community partner will be the Franklin Park Conservatory Children’s Garden (see letter of collaboration for a proposal submitted in July 2018 but not funded). The Conservatory is free for residents of Franklin County and the City of Columbus (with valid ID) on the first Sunday of each month (10am to 5pm). I will also work with Columbus Zoo and Aquarium (see letter of collaboration) to present select projects from the course at the World Oceans Day celebration at the Columbus Zoo and Aquarium on June 8th.

The community partner was not directly involved in the development of the service project. I contacted them to see if they were interested in the project last summer. They said they would be. Likewise, I contacted the Columbus Zoo and Aquarium and they said they would be happy to have us participate in their World Oceans Day celebration.

The service project reflects the mission of the Franklin Park Conservatory and Botanical Gardens to “connect the community through educational, cultural and social experiences” and the vision “A world that celebrates nature as essential to the human experience.” Learning more about our oceans which cover two thirds of our planet is an important part of this mission and vision.

The Columbus Zoo and Aquarium is committed to “strengthen environmental education” and “promote community involvement”. The World Oceans Day event is organized to help the community “learn about marine life and how to keep our oceans clean and healthy”. They seek to provide “hands-on educational activities for the whole family” and are part of the international World Oceans Day celebration, which provides “a unique opportunity to honor, help protect, and conserve our world’s shared ocean.”



June 21, 2018

To NSF Faculty Early Career Development Program (CAREER):

If the proposal submitted by Dr. Elizabeth M. Griffith entitled “CAREER: Constraints on the carbon cycle during the Miocene from the eastern equatorial Pacific” is selected for funding by the NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment or Other Resources section of the proposal.

Jenny Pope

Jenny Pope | Director of Community Outreach and Education

Franklin Park Conservatory & Botanical Gardens

1777 East Broad Street | Columbus, Ohio 43203

614.715.8026 direct line | 614.715.8199 fax

jpope@fpconservatory.org

www.fpconservatory.org

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A handwritten signature in black ink that reads "Danielle Ross". The signature is written in a cursive style with a large, looped initial "D".

Danielle Ross
Columbus Zoo and Aquarium
June 19, 2018



April 5, 2019

To: ASC Grant Committee for New Service-Learning Course proposals:

This letter is confirm my commitment to provide departmental support for Dr. Elizabeth Griffith's proposal for a new service-learning course in the School of Earth Sciences. The School plans on offering the service-learning course "Principles of Oceanography" (ES 2206s) on a continuing basis once approved. Specifically, the course will be offered annually in the Spring semester. The Principles of Oceanography course plays an important role in the department's curriculum and we will put in the course modification to service-learning into curriculum.osu.edu at the end of the summer. We will embark on a GE assessment plan & syllabus as well as submit an amended curricular map to permit students to count the SL version of 2206 towards their major (BA and ESS students).

In summary, I strongly endorse the creation of an Oceanography (ES 2206s) Service-Learning course in the School of Earth Sciences as proposed by Dr. Elizabeth Griffith.

Please let me know if any further questions arise from the committee.

Sincerely,



THE OHIO STATE UNIVERSITY

Matthew R. Saltzman

Director and Professor

School of Earth Sciences

275 Mendenhall Lab, 125 South Oval Mall, Columbus, OH 43210-1398

6142920481 Office

saltzman.11@osu.edu