



9 November 2016

Dr. Blackwell and the International Programs Committee
Francis Marion University

Dear International Programs Committee,

Please find attached my proposal for the 2016 International Collaboration Grant entitled "Initiating a collaborative teaching program between Francis Marion University and Pontificia Universidad Católica del Ecuador, Quito EC; Teaching BIOL 318 (Tropical Ecology) in May 2017". The goal of this proposal is to continue to build the relationship among FMU and Pontificia Universidad Católica del Ecuador (PUCE), our partner institution in Quito, Ecuador. Currently an research agreement is in place between FMU and PUCE, where PUCE faculty assist FMU faculty with aspects associated with performing research in Ecuador, i.e. assisting with obtaining research permits from the Ministry of the Environment, submitting final reports, storing digital data and museum specimens, *etc.* In return, PUCE and FMU faculty have collaborated on FMU-initiated research projects at the Wildsumaco Biological Station (WBS), and PUCE students have assisted FMU faculty with research projects. For example, I have included PUCE biology students in my research on two separate occasions investigating male displays in the white-crowned manakin at WBS. This proposal aims to increase the level of collaboration among FMU and PUCE faculty from strictly research projects to the development of joint institutional courses.

The development of joint courses is mutually beneficial to both FMU and PUCE, increasing the exchange of knowledge and ideas among faculty, and providing lifetime experiences to students. FMU students will receive access to an experience that is unlike anything within the U.S., allowing them to consider scientific theories that explain their observations of biodiversity at its most grand. Likewise, Central and South American students interested in post-graduate degrees look to U.S. institutions, and interactions with U.S. faculty both in research and through courses help to increase their competitiveness. The specific goals of this proposal are therefore to: 1- develop a joint Tropical Ecology course to be taught to both FMU and PUCE students at PUCE in May 2017, and 2- meet with individuals at PUCE to lay the groundwork for future joint courses in Ecuador, here at FMU, and via online & teleconferencing technologies.

I started in my tenure-track position in fall 2013. I have visited Ecuador and WBS several times since I began working at FMU. Most recently I visited WBS as part of an NSF Field Station Improvement grant. FMU funds (specifically Professional Development for myself, and REAL funds for 4 FMU students) were most recently used to travel to WBS in July – August of 2015. I last received ICG funds in 2013.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Zwiers".

Paul Zwiers

Assistant Professor of Biology

INTERNATIONAL COLLABORATION GRANT – 2016

Paul Zwiers

Biology Department

Title: Initiating a collaborative teaching program between Francis Marion University and Pontificia Universidad Católica del Ecuador, Quito EC; teaching a joint international course in Tropical Ecology (BIOL 318), May 2017.

The Wildsumaco Biological Station (WBS) in Ecuador provides a world-class learning opportunity for undergraduate students who wish to participate in field courses and field-based research. While agreements between FMU and Pontificia Universidad Católica del Ecuador (PUCE) in Quito, EC have made research at this field station possible, we currently lack a process by which faculty can develop joint educational experiences among our institutions. The purpose of this proposal is to lay the groundwork for the development of joint international courses between FMU and PUCE. Through this endeavor, I hope to increase faculty collaboration and student interaction among our institutions, and in doing so increase usage of WBS.

The desire to form joint courses stems from discussions between Dr. Santiago Burneo, Director of the School of Biological Sciences at PUCE, Travis Knowles, Jeff Steinmetz, and myself. Building upon current research agreements, I will work with Dr. Burneo and other interested biology faculty at PUCE and FMU to look at ways to implement joint courses, and identify issues that may arise. In addition, and as a test of initial ideas discussed between Dr. Burneo and myself, I will teach a joint version of the Tropical Ecology course (BIOL 318) during the FMU May-term in 2017. Through these discussions and by working with Dr. Burneo to implement this test course, I hope to develop a platform on which future joint courses between our institutions can be built.

I have already begun speaking with Dr. Burneo about the creation of joint courses, and we have discussed several potential issues. Among others, we have discussed scheduling, course format, whether courses “make”, student payment and course credit, faculty compensation, and student travel with non-institutional faculty (i.e. PUCE students traveling with FMU faculty). Details need to be discussed, but we have identified possible solutions. The PUCE fall schedule roughly matches the FMU schedule, so this could lead to the creation of a joint class utilizing online and telecommunication technology to simultaneously teach FMU and PUCE students. The spring semester does not match, but PUCE students may have some flexibility to join a May-term course. Some of the other issues could be solved by providing Visiting Professor status to the faculty of the other institution. In doing so, the same course would be offered at both institutions where students pay and receive credit at their home institution, students will

travel with faculty from their home institution, and salary could be paid directly to the faculty. We will involve institutional administrators once we have a more detailed outline in place.

I plan to discuss these topics more in depth in May of 2017 when I teach a joint version of the Tropical Ecology class at PUCE. Plans are still in development, but I am discussing options with Dr. Burneo concerning possible PUCE faculty participation, student accommodations within student housing on the PUCE campus, am actively recruiting interested FMU students, and have been awarded REAL funds to help pay for student travel and accommodations. The course schedule is tentatively as follows:

JOINT BIOL 318 COURSE- TENTATIVE SCHEDULE:

08	May	FMU and UNCW students fly to Quito
9 – 12	May	Lectures on PUCE campus; Planning of independent project (4 days)
13	May	Transport to WBS
14	May	Field Station orientation
15 – 22	May	Lectures and independent project field work (8 days)
23	May	Transport to PUCE
24 – 26	May	Complete project on PUCE campus; presentation of final written report, poster or presentation (3 days)
27	May	FMU and UNCW students return to U.S.

And the course will generally be structured as follows (course content based upon previous course versions designed by Travis Knowles):

- Lectures, readings, journals, assessments, and initial planning of projects on PUCE campus prior to WBS field work
- Lectures, readings, journals, assessments, and field work at WBS
- Complete journals, final assessment and completion of project on the PUCE campus

The funding requested in this application will be used to offset my travel and accommodation costs accrued during the teaching of this course and while meeting with Dr. Burneo. Specifically, these funds will be used to cover my airfare to/from Quito, Ecuador, accommodations and ground transportation while in Quito, within country transportation to/from the Wildsumaco Biological Station, and accommodations while at WBS. In addition, funds will be used to cover transportation and accommodations for a PUCE faculty member (potentially Dr. Burneo, but could be another interested PUCE faculty member) interested in accompanying this class to WBS.



FRANCIS MARION UNIVERSITY

Department of Biology

Dr. Blackwell and the International Programs Committee

9 November 2016

Dear Committee members,

I fully support Paul Zwiers's application for an International Collaboration Grant. Paul will work with colleagues at PUCE (Pontificia Universidad Católica del Ecuador) our partner institution in Quito, Ecuador. He will travel with there with our students in late spring term for our Tropical Ecology class. Paul has already established some research projects at our field station in Ecuador and has involved some PUCE students in those projects. This new collaboration would enhance our collaborations with PUCE faculty by developing and jointly teaching portions of the course we offer at the field station.

Paul has traveled to Ecuador and the field station several times on trips to work on research projects. With funding from REAL grants, he has taken our students there to assist with his research. This project would benefit our relationship with our partner institution, our students' experience with the Tropical Ecology course this summer, and would benefit Paul's own teaching development. It also has the potential to increase our connections there for research.

Because his participation in the project does not occur during the academic year this project will not impact departmental operations in any way.

I whole-heartedly support his application.

Sincerely,

Ann Stoeckmann

Chair and Professor of Biology