

Instructionally Related Activities Funds Request Fall 2019

▼ Submitter

Submitter Name

Scott Feister

Submitter Email

scott.feister@csuci.edu

▼ 1. Basic Details

Activity Title

Computer Programming in an Air Force Physics Laboratory

Activity/Event Date

Fall 2019 (November)

Date Funding Needed By

Fall 2019 (November)

Previously Funded?

- ☒ No
☐ Yes

Additional Proposers

Academic Program(s)/Center Name(s)

Computer Science

Estimated total Course Fee revenue

n/a

Amount Requested from IRA

1570

Estimated Number of Students Participating

Available both as a lecture to entire campus community (all-campus event) and as in-class visits/lectures.

▼ 2. Brief Activity Description

Describe the activity and its relationships to the educational objectives of the students' program or major

Brief Activity Description

Dr. Kevin George will lead a campus-wide lecture in which he leads students through the integral role in computer programming in the Air Force physics laboratory at which he works. He will discuss the roles involving mechatronics automation of laboratory equipment, computer control of electronic sensors and equipment, and computer-based scientific data analysis.

This work will provide a real-world application of their time spent in computer programming, mechatronics, electronics, and software engineering. Dr. George will provide direct examples for the students to see the use of MATLAB, Mathematica, and Python in a professional research setting. Python is a computer language used in the core curriculum of Computer Science (Introduction to Programming). MATLAB and Mathematica are used and taught in the Mathematics curriculum. Dr. George will also show tangible examples of Mechatronics devices that he has programmed for use in this professional laboratory setting.

▼ 3. Learning Outcomes and Relation of IRA to Course Offerings

All IRAs must be integrally related to the formal instructional offerings of the University and must be associated with scheduled credit courses.

1. Please list all classes that directly relate to the proposed activity.
2. For each class listed, describe in detail how exactly the IRA activity will be integrated with the class's activities, how often/ on what expected date(s), and to what extent

Learning Outcomes and Relation of IRA to Course Offerings

Students attending Dr. George's presentations will:

- (1) understand that topics in Computer Science are applied in the natural sciences
- (2) learn how computer programming is used at all stages of the scientific process
- (3) explore ways in which mechatronics devices are used in professional research settings
- (4) broaden their scope of career opportunities beyond developing commercial products, to include government research facilities

Courses directly relating to the proposed activity:

COMP 262 (S-1): Computer Organization and Architecture. (24 students) Dr. George will give a special in-course lecture and lead a discussion. Students will be required to attend this in-class lecture, which will particularly highlight various computer organizations and architectures present in Dr. George's laboratory.

▼ 4. Activity Assessment

Describe the assessment process and measures that the program will use to determine if it has attained its educational goals.

Please note that a report will be due at the end of the semester.

Description of Assessment Process

Students attending the all-campus lecture will be asked to complete a survey evaluating their experience of the event.

Students in COMP 262 will be required to complete a one-page paper assessing the presentation and their gained understanding of the applications of three computer organizations/architectures which will be discussed in detail by Dr. George.

▼ 5. Activity Budget

Please enclose a complete detailed budget of the entire activity. Indicate specific items that you are requesting IRA to fund.

You should use either the Regular Activity budget (for events on campus) or -- if your event involves any travel-- you MUST use the IRA Travel Budget Form.

You can download both of the IRA Excel Budget sheets at <http://www.csuci.edu/ira/application.htm>.

Activity Budget

[Feister - Campus-Wide Colloquium - Fall 2019 Budget.xlsx](#)

▼ 6. International Trips

If your event is an international trip submitted through the Center for International Affairs, you must include copies of:

1. Complete Center for International Affairs/ UNIV 392 proposal
2. The program budget as submitted to the Center for International Affairs (to ensure congruency between the two budgets)
3. as well as a copy of the course syllabus

Center for International Affairs Budget

Copy of Center for International Affairs Proposal

Course Syllabus

Certification

☐ I certify that students attending this trip are not previous or repeat attendees of a prior International UNIV 392 Trip

▼ 7. Sources of Activity Support

Please list the other sources of funding (including course fees), and exact expected amounts of additional support for the activity. Please indicate if there are no other sources of funding

Other Sources of Funding

No other sources of funding are expected.

▼ 8. Promoting Participation

What is your intended audience and how do you intend to market this to your students?

The intended audience is students in Computer Science, Mechatronics, Mathematics, and Applied Physics. I intend to market the event through paper flyers in hallways frequented by students of these programs, verbal announcements by faculty in multiple courses from these Programs, and departmental emails to the students announcing this event.

If this is an event that is off campus, how do you plan to bring back the benefit of this event to campus?

N/A

▼ 9. Approval and Acknowledgement

Program Chair/Director

Soltys, Michael

Dean

Wyels, Cynthia (Arts & Sciences)

Conditions and Considerations

- ☒ **Artist/Performer/Speaker Fees & Honoraria:** On the Activity Budget, please indicate whether the vendor's price was set by you/CI Representative, or is a fee that was set by the vendor.
- ☐ **Large Event:** For a large event, consultation with the campus Event Coordinator's office at (805)437-8548 is required.
- ☐ **Field Trip:** Sponsor must comply with all policies found at:
<http://www.csuci.edu/rm/programs/academic-field-trip-guidelines-and-forms.htm>. If approved, Identified Risks of Participation and Release Agreement must be submitted for each student to the Program Office (Public Folders-HR Forms).
- ☐ **Involves Human Subject Data Collection for Public Dissemination -Requires IRB Approval :** If Project Sponsor proposes to conduct research with human participants, the proposal may be subject to Institutional Review Board for the Protection of Human Subjects (IRB) review. All research that involves any type of interaction with human subjects - from simple surveys to complex biomedical procedures - must be reviewed and approved by the IRB prior to starting the research. Data for "Public Dissemination" indicates interviews/surveys that result in a journal/poster session/newsletter, etc.
- ☐ **IT Requirements:** If your activity has IT requirements, coordination with and approval from IT Administration is required.
- ☐ **International Travel:** Requires International Travel application be submitted to Center for International Affairs. Include copy of CIA budget and course syllabus in your IRA application. Must utilize the University's Foreign Travel Insurance Program (FTIP) and follow all International Travel Guidelines listed at: <http://www.csuci.edu/rm/insurance/foreign-travel.htm>
- ☐ **Risk Management Consultation:** Events that involve or engage students directly with a performer or artist (i.e. in a workshop or other than as a passive audience member) will require consultation with Risk Management. Requires proof of correspondence with Risk Management.
- ☐ **Space/Facilities Services Requirements:** Consultation and coordination with Facilities Services is required.

Acknowledgement

- ☒ I acknowledge that I have reviewed and accepted the Conditions and Considerations herein. I acknowledge that the activity sponsor will be responsible for managing purchases, travel arrangements, and all transactions related to approved activities. Please check off boxes as appropriate.

▼ Chair Review

Recommendation

- ☒ I recommend approval of the IRA Funds Request described on this page
- ☐ I DO NOT recommend approval of the IRA Funds Request described on this page

Comments

 Michael Soltys-Kulinicz

Mar 21 2019

▼ Dean Review

Recommendation

- ☒ I recommend approval of the IRA Funds Request described on this page
- ☐ I DO NOT recommend approval of the IRA Funds Request described on this page

Comments

 Cynthia Wyels

Apr 4 2019