

Instructionally Related Activities Funds Request Spring 2017

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IRA Funds Request for Competitive Programming Preparation

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Instructionally Related Activities Funds Request Summary

Project Sponsor	Brian Thoms
Activity Title	Competitive Programming Preparation
Activity/Event Date	4/21/2017
Date Funding Needed By	2/21/2017
Previously Funded?	No
Semester/Year	—
Proposal #	—
Report submitted for previously Funded Activity?	—
Report submitted for previously Funded Activity	—
Additional Report #1	—
Additional Report #2	—
Additional Report #3	—
Additional Proposers	—
Academic Program(s) / Center Name(s)	Computer Science
Estimated total Course Fee revenue	n/a
Amount Requested from IRA	1200
Estimated Number of Students Participating	20
Conditions and Considerations	—
Brief Activity Description	<p>With support from IRA funding, I am requesting resources that will be instrumental in facilitating 3 programming meet-ups, in preparation for the Computer Science (CS) Programming Guru Contest, which will be held on April 21, 2017 and the ACM International Collegiate Programming Contest (ICPC). The greater goal of these meet-ups is to introduce and open up participation to a larger population of students.</p> <p>Each fall, with past support of IRA funding, CS sends four teams of three to compete at the ICPC. The event, which takes place in Riverside, CA, consists of colleges from in-and-around southern California. CI belongs to the Southern California Region, where students compete against peers from local institutions including, but not limited to, UCLA, UCSD, UCSB, USC, Cal Tech, Harvey Mudd and CSULB. And each spring, students compete against other CI students in Computer Science's own reproduction of this event.</p> <p>During these contests, teams are presented with a set of problem descriptions, along with sample input and output for each problem and had five hours to solve as many problems. Students' programming capabilities are challenged across a breadth of domains and solving a problem means that the program, when compiled by the judges, and run against the judges' confidential data, produces some predetermined. Teams are free to solve the problem with any algorithm that produces said results specified in the time allotted.</p> <p>In 2015, each CI team attending ICPC managed to solve at least one challenging problem with one team, Team Anacapa managing to solve five problems (a new school record), earning them a spot in the Top 20. CI success at these events has come without any extra-curricular preparation from students, which is something I hope to change in 2016.</p> <p>This fall, I held our first competitive programming meet-up to get the ball rolling. What I hope to accomplish through these meet-ups is to provide a larger forum for students to learn about programming techniques and algorithms. Since the ACM competition is limited to select students, I am optimistic that programming meet-ups will offer more CI students the chance to work in teams alongside their peers to construct software and learn competitive programming strategies. These meet-ups will also encourage greater participation in CS's own Programming GURU contest, which we hold at the end of each academic year.</p> <p>Specifically, I will be looking to use IRA funds to purchase preparatory textbooks and manuals and instructional resources including dry-erase white boards and dry erase markers.</p>
Learning Outcomes and Relation to IRA to Course Offerings	<p>Along with math, computer programming is a fundamental skill at the foundation of the computer science major. One way for students to showcase the skills they learned in the classroom is through the participation of programming competitions such as ICPC and GURU. As such, the following courses are aligned with this activity:</p> <p>COMP105 Introduction to Computer Science and Programming, COMP150 Introduction to Object-Oriented Programming, COMP151 Algorithms and Data Structures, COMP232 Programming Languages, COMP350 Software Engineering, COMP351 Distributed Computing, COMP450 Advanced Object-Oriented Programming.</p>

	Additionally, software engineering is becoming increasingly collaborative and industry expects that graduates are capability of working alongside teammates to solve complex business problems, which they have the opportunity to do when participating in programming contests.
Description of Assessment Process	A primary goal of these meet-ups will be to maximize participation at these events so tracking participation will be important. Additionally, I plan to put together a how-to for CI competitive programming, which will be largely supported using student feedback.
Activity Budget	IRABudgetFormProgrammingMeetups.xlsx
CIA Budget	—
CIA Proposal	—
Course Syllabus	—
CIA Certification	—
Other Sources of Funding	Computer Science is currently sponsoring these meet-ups but without the additional resources requested in this IRA
Target Audience/Student Marketing	The current intended audience will be any CI students interested in competitive programming or team-programming. These events are not exclusive to Computer Science. As the content manager for the Computer Science Dept. website, I have already been marketing these events and will continue to do so in the future.
Bring Benefit to Campus	This event takes place on campus.
Sustainability	Sustainability does not apply for this project.
Program Chair/Director	michael.soltys
Dean	james.meriwether
Acknowledgement	I acknowledge that I have reviewed and accepted the Conditions and Considerations herein. Please check off boxes as appropriate.

Program Chair/Director Review

Recommendation	I recommend approval of the IRA Funds Request described on this page
Name	Michael Soltys
Date/Time	9/30/2016 8:52:31 AM
Validation	myCI-signin-QX-1357
Comments	Our students have done very well in the past two years, ranking high in regional California competitions. These events really build up morale and create lasting friendships among the students.

Dean Review

Recommendation	I recommend approval of the IRA Funds Request described on this page
Name	James Meriwether
Date/Time	9/30/2016 9:46:59 AM
Validation	myCI-signin-GD-7766
Comments	The narrative talks about meet ups, even as the budget is about materials (MSFT?)

IRA Committee Decision

Decision	—
Comments	—

Current Tasks

Task	Time Assigned	Assigned To
IRA Committee Decision	9/30/2016 9:46:59 AM	David Daniels

Completed Tasks

Task	Time Assigned	Time Completed	Completed By
Review from james.meriwether, Dean	9/30/2016 8:52:31 AM	9/30/2016 9:46:59 AM	James Meriwether
Review from michael.soltys, Program Chair/Director	9/29/2016 10:39:00 PM	9/30/2016 8:52:31 AM	Michael Soltys
Fill out Request	9/29/2016 9:25:09 PM	9/29/2016 10:39:00 PM	Brian Thoms

Actions

- [IRA Committee Decision](#)
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