Faculty Member Contact Information

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Description of the URCA Assistant Position

This posting includes one funded position. In addition, the faculty member may be willing to mentor additional, unfunded students.
How many unfunded students is this professor taking in addition to his/her one funded student? __0__
(Students, if the faculty member will have both funded and unfunded students, he or she is free to select which student receives the funding. Funding cannot be split up between multiple students; only one student will receive it.)

Which of the following apply to this position?

[X] This position is **only** open to students who have declared a major in this discipline.
[ ] This project deals with social justice issues.
[ ] This project deals with sustainability (green) issues.
[ ] This project deals with human health and wellness issues.

How many hours per week will your student(s) be required to work in this position? __8__
(Minimum is 6 hours per week; typical is 9.)

Will it be possible for your student(s) to earn course credit? [ ] Yes [X] No
If yes, in which course? N/A **If yes, for how many credit hours?** N/A

Location of research/creative activities: N/A

Brief description of the nature of the research/creative activity:
Develop flight code for a Sprite spacecraft to be launched into low Earth orbit. Track the Sprite using radio signals emitted by an on-board transceiver.

Brief description of student responsibilities:
The student will write and test code for the Sprite microcontroller using a development board, which will be submitted for upload onto a flight craft. Once the Sprite has been placed in low Earth orbit, the student will be responsible for tracking the craft's radio transmissions.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?
The student will become familiar with the processes involved in preparing, launching, and tracking a low Earth orbit satellite. The student will have applied electronic measurements theory to a real-world problem through microcontroller programming. The student will learn and understand the physical challenges of tracking a spacecraft orbiting the Earth.

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours), please indicate all required days and times:
I have an open schedule and I can arrange meeting times with the student once the position is open.

If the location of the research/creative activities involves off campus work, must students provide their own transportation?
On Campus

Must students have taken any prerequisite classes? Please list classes and preferred grades:
PHYS 151, 152, 201. Computer Science. Programming in C and C++

Other requirements or notes to applicants:
N/A