

POSITION # F09-017

Faculty Member Contact Information

Name: **Dr. Bill Retzlaff**
Department: **Biological Sciences**
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Description of the URCA Assistant Position(s)

Number of students requested: **2**

Number of students who will be funded: **1: Only one of the two students for this position will be funded. Dr. Retzlaff will determine which student receives funding.**

Will the student(s) earn course credit? Yes **X** No If yes, in which course? **BIOL 493 - 035**

Location of research/creative activities: **SIUE Campus – Green Wall Research Site**

Brief description of the nature of the research/creative activity:

Evaluating performance of sustainable biowall projects (plant growth, thermal benefits, and storm water benefits).

Brief description of student responsibilities:

Students will collect plant growth data and thermal data on a weekly basis on the sustainable biowalls. Students will collect storm water runoff data when precipitation events occur.

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?

Students will be evaluating the performance of a completely randomized, replicated experimental design. They will be able to comprehend the scientific process – hypothesis, experiment, analysis, and conclusion (and more questions). These students will understand sustainability and basic biological and environmental principles. They will be proficient in field and lab techniques related to the experimental design and will have exposure to other “green” projects ongoing in the lab and at our field sites. All will be invited to contribute to an oral or poster presentation at a scientific conference.

Additional 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:

Daytimes – weekly measurements, likely afternoons, scheduled with Faculty mentor.

If the location of the research/creative activities is off campus, must students provide their own transportation? Yes ___ No ___ N/A

Must students have taken any prerequisite classes? Please list classes and preferred grades:

BIOL 111 or equivalent.

Other requirements:

Each student must be willing to work within a large group and alone at times. Must be able to follow specific directions and provide data/reports when scheduled. Must be interested in environmental research and may have to climb ladders to roof tops to do work.

Notes to applicants (i.e., any other information you'd like applicants to know about you or the position before applying):

There will likely be weekly meetings with other undergraduate and graduate students in this research group – scheduled as time permits.

Also, exposure to other projects and exciting green roof and green wall innovations will occur frequently.