

### 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?**   1  

(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?**

This position is **only** open to students who have declared a major in this discipline. **M**

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?**   9  

(Minimum is 6 hours per week; typical is 9.)

**Will it be possible for your student(s) to earn course credit?**  Yes  No

**If yes, in which course?** BIOL 493

**If yes, for how many credit hours?** 3

**Location of research/creative activities:** Campus, Horseshoe Lake State Park

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

Tallgrass prairie was a dominant element in the southern Illinois landscape until the Civil War. Numerous prairie restorations exist, but few studies have been conducted to evaluate how closely they resemble native prairie in terms of their ecosystem functions (biological productivity, soil structure, nutrient cycling, decomposition rate, contaminant release etc.) This study will examine two restorations on varying sites (sand and silt loam soils) to compare productivity and estimate consequent heavy metal release to the environment.

### **Brief description of student responsibilities:**

My assistant will work with a graduate student to harvest and process biomass samples from two prairies, enter and statistically analyze data by computer, and conduct a literature search to obtain comparison data.

**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?**

My assistant will obtain a hands-on understanding of two different tall grass prairie systems, learn data management techniques, and acquire knowledge of more advanced statistical procedures (Analysis of Variance). My assistant will be introduced to basic principles of ecosystem description and modeling.

### 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:**

none

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

none

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

Students should have at least one course in plant biology and ecology (BIOL 365).

### **Other requirements or notes to applicants:**

Applicants must be comfortable and unafraid in the field. Must be able to tolerate temperatures ranging as low as 20 degrees for three hours at a time. Those unfamiliar with outdoor work are discouraged.