

Faculty Member Contact Information

Name: **David Duvernell**
Department: **Biological Sciences**
E-mail Address: **dduvern@siue.edu**

Description of the URCA Assistant Position(s)

Number of students requested: **4**

Number of students to receive funding: **1**

Will the student(s) be eligible to earn course credit? Yes **X** No If yes, in which course? **BIOL 493**
(If students are to earn credit hours for participating, they should earn 3 credit hours.)

Location of research/creative activities: **Science Building, Room 3219**

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

Studies of the ecological interactions and evolutionary relationships between two species of Topminnows (genus *Fundulus*) found locally and throughout the Midwest.

Brief description of student responsibilities:

Specimen samples (fin clips) from several NSF-funded studies will need to be genotyped using molecular biology techniques. Students will perform DNA extractions, polymerase chain reactions, restriction endonuclease digestions and gel electrophoresis. Emphasis will be placed on proper lab technique, note taking, data collection and organization and analysis and interpretation. Students who are seniors will have the opportunity to design and develop a senior assignment project as part of their experience working in the lab.

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 who engage in research in my lab should gain proficiency in basic molecular lab techniques, should be able to trouble shoot problems, and should learn proper protocols regarding documentation of activities and procedures and organization of data. Students will learn the skills that will make them marketable for jobs and/or competitive for graduate and professional programs when they graduate.

Requirements of Students

All student applicants must complete an application. If you need additional information to help with your selection, please indicate below.

Students who will be working in my lab have already been screened and selected.

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:

Students will have flexibility to set their own schedules in the lab once they have been trained to perform procedures proficiently. One hour per week will be set aside for lab meetings and this time will be determined at the start of the semester when everyone's schedules are available.

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

N/A

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

Students should have completed Introductory Genetics (BIOL 220), preferably with a B or better.

Other requirements:

None

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

None