

### **Faculty Member Contact Information**

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<b>Contact Info</b>	
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<b>Department</b>	Chemistry

### **1 Funded, 1-4 Unfunded URCA Assistant(s)**

**Are you willing to work with students from outside of your discipline? If yes, which other disciplines?**

- Yes

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

- 8-10 hours

**Will it be possible for your student(s) to earn course credit?**

- Yes, in CHEM 296, 396, 496 for 0-2 credits credit hours.

**Location of research/creative activities:**

- Science West 3010

**Brief description of the nature of the research/creative activity?**

- The student will work in a chemistry research laboratory, gaining experience with common synthetic organic and catalytic techniques as we work to develop new reaction and analysis methods. This project involves setting up reactions, purifying products, and analyzing obtained data related to new chemical reactions. The focus of this project is the development of new reaction systems, which have applications for the preparation of chiral molecules.

**Brief description of student responsibilities?**

- My Assistant will be responsible for working alongside the mentor and peers in the laboratory, setting up reactions and analyzing products. The Assistant will perform

literature searches for related procedures, and then apply these methods in the lab. The student will be responsible for keeping a complete record of the findings, complying with all safety procedures, and performing hands-on experimentation 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?**

- At the end of the semester, the research Assistant should have gained experience with common organic laboratory techniques, methods of analysis, and scientific literature search techniques. This project will specifically provide insight into what is required to develop a new synthetic reaction, with applications that are significant to materials production and pharmaceutical research. This project will involve the use of common research instrumentation, necessary skills for employment in chemical industry or graduate programs. The student will have the data to present in a poster format for a science-related conference.

### **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:**

- Students need to have at least two uninterrupted blocks of time (3-4 hours) available during the week, preferably between 9 am-5pm.

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

- No off-campus work needed.

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

- CHEM 121A/B, CHEM 125A/B, CHEM 241A/B, CHEM 245 (and earned at least a B in all)

**Other requirements or notes to applicants:**

- Preference will be given to applicants interested in participating in at least two consecutive semesters of laboratory research.