

POSITION # F09-028

Faculty Member Contact Information

Name: **Edward Navarre**
Department: **Chemistry**
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Description of the URCA Assistant Position(s)

Number of students requested: **1**
Number of students who will be funded: **1**
Will the student(s) earn course credit? Yes No If yes, in which course? **CHEM 396**
Location of research/creative activities: **SIUE Edwardsville Campus, Dept. of Chemistry**

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

The elemental analysis of paint pigments, especially as related to the study of antiquities, will be studied by a novel atomic absorption instrument. The instrument is being developed as a highly portable device for elemental analysis. The project will examine the development of methods appropriate for the analysis of metals in paint pigments.

Brief description of student responsibilities:

The student will be responsible for conducting the experiments, including preparation of solutions, extraction of samples, and analysis with the atomic absorption instrument. Basic analysis of the data quality is also expected. The student will write a summary report and participate in the writing of any peer-reviewed outcomes.

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 proficient with analytical laboratory procedures for making quantitative standards. They will also become familiar with the fundamentals of atomic absorption spectrometry and the difficulties associated with that technique. This project will also introduce the student to methods of chemical analysis particular to antiquities.

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:

None

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:

Must have completed CHEM 241 A/B.

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