Department of Chemistry
Student Assistant Job Description

Job Title: **STUDENT ASSISTANT LAB DEVELOPMENT CHEM 2333/CHEM 3432**

Duties may include:

- Primary duties are to assist the course instructor with the development of new laboratories for both CHEM 2333 and CHEM 3432. Focus will be on new labs which utilize ICP-MS, LC-MS, GC-MS, various spectroscopies and electrochemistry.
- Conduct a thorough literature search into new laboratory experiments which focus on electrochemistry, spectroscopy and separations that can be tested for development. Will narrow down the potential experiments down to a final list for trial.
- Duties may also include assisting with the installation of new instrumentation and troubleshooting existing equipment.
- May be asked to take part in training related to new instrumentation, as available.
- May be asked to assist with the preparation of standard operating procedures for new instrumentation.
- Will assist with the organization and preparation of materials for experiments.
- Will conduct trials of the proposed experiments in triplicate to assess a variety of parameters including accuracy and precision, time to complete, complexity of the laboratory, potential safety concerns, etc.
- Will draft a final report for each completed experiment that has been trialed. Will present their findings on these experiments to the instructor.
- For final experimental selection, develop the lab experiment for inclusion in the laboratory manual, complete with relevant reactions, discussion questions, etc.

Expectations:

- Student Assistant Lab Development is expected to: be skilled and knowledgeable in the subject areas, and be familiar with the safe handling of all chemicals, waste, glassware, and equipment;
- be motivated, reliable and safety-conscious
- to take direction from the instructor, as needed;
- to ask for help or extra instruction when needed;
- report any laboratory incidents to the instructor;
- adhere to all safety policies set out under the Faculty of Science; follow relevant Standard Operating Procedures (SOPs); supply your own properly-fitting lab coats and safety glasses.

Requirements:

- Must be an MSc or PhD level student
- WHMIS certified in the last 12 months
- Must be available for at least one 3-hour period of time during the week
- Ability to work in the fume hood with both hands performing tasks at shoulder level

Assets:

- Excellent interpersonal skills
- Ability to critically review scientific literature
- Functional knowledge of Web of Science
- Knowledge of instrumentation and software, relevant to the course/lab.

Duration and Pay: 48 hours total (graduate TA)

- Distribution of hours to be agreed upon between student and supervisor.
- Paid according to SMU's Payroll Teaching Assistant/Student Marker/Demonstrator Schedule for the term hired.