

**Chemistry Laboratory IVA-CTW  
(CHEM 4160)  
Course Syllabus – Fall 2018**

**Instructor:** Samer Gozem

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**Office Hours:** Wednesdays 10:30 A.M. – 12:30 P.M., or e-mail in advance.

**Course Prerequisites:** CHEM 4000 and CHEM 4110 with grades of C or higher, or equivalent, and prior discussion with research advisor about project.

**Course Description:** CHEM 4160 is a 3-credit chemistry laboratory course which serves as one of the two Critical Thinking Through Writing (CTW) courses required of all chemistry majors. In this section, students will learn how to use computational chemistry tools and software to solve a chemical problem. At the end of this course, each student must write an ACS-style report on their results and findings and discuss their results in the context of existing literature.

**Course Objectives:** To learn how to conduct scientific research in computational chemistry. This includes learning how to conduct literature search, data collection, data analysis, and to draw conclusions from the data.

**Written Report:** Each student must write a report reflecting the work they did during the semester. The report must be handed in either as a physical copy or emailed to me as a pdf file before midnight on **November 30<sup>th</sup>, 2018**. The report should be at most 15 pages long (double spaced, 12-sized font, 1-inch margins, including figures and references). The referenced ACS-style report should provide background, introduce the assigned problem, present data and results, and discuss the results in context of existing literature. The entire report must represent your **individual effort**, even if your work was part of a bigger collaborative project.

**Grading:** The course grade will depend on the final report, which will be graded using the following criteria:

<b>Criteria</b>	<b>%</b>
Introducing the problem	15
Report format, clarity, referencing	15
Data and Data analysis	40
Discussion of results	30

**Last day to withdraw: Tuesday, October 9th, 2018**

The University requires faculty, on a date set by the Provost after the mid-point of the course, 1. to give a WF to all those students who are on their rolls but no longer taking the class, and 2. to report the last day the student attended or turned in an assignment.