

# Chem2214B Course Outline (2024 Winter )

## Physical Chemistry for Life Sciences

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### Course Description & Prerequisite Requirements

**Calendar Description** Basic thermodynamic concepts and relations and illustration of their relevance and applications to biological systems. In addition, some aspects of electrochemistry, and spectroscopic techniques will be introduced, again with emphasis on the role of these techniques in understanding the structure and nature of important biological molecules.

**The prerequisites are** (Chemistry 1301A/B and Chemistry 1302A/B) or (Chemistry 1301A/B and Integrated Science 1001X); 0.5 course from: Calculus 1000A/B or 1500A/B; 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1225A/B, 1229A/B, 1300A/B Anti-requisites are Chemistry 2374A, 2384B

Unless you have either the prerequisites for this course or written special permission from the Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites. **Note:** Students repeating the course must repeat the lab component. There are no exemptions.

### Instructor and Lecture Information

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Section	Time	Room	Instructor	Office	Email
001	MWF 2 W 13:20 pm	UC1105	Prof. Yang Song	ChB 22	yang.song@uwo.ca

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#### Lectures

Lectures will be delivered in person at scheduled lecture time and classroom. This arrangement is subject to change following Western updated regulations.

#### Office hours

I will host office hours at selected time by announcement. Other need for office hours by appointment(email).

#### Email policy

For your own protection, students must use only their @uwo.ca email account for all inquiries related to this course. It is very easy for anyone to set up a mail account with anyone else's name in email address. All emails coming from non-uwo servers will be ignored. All emails coming to the instructor should include Chem 2214 in the subject line to avoid delay in response.





# Learning Outcomes

Upon successful completion of this course, the student is expected to demonstrate the ability

- Describe the basic principles of thermodynamics and other selected physical chemistry topics.
- Solve problems by correctly formulating the physical/chemical processes and executing calculations.
- Conduct physical chemistry laboratory experiments efficiently with in-depth understanding.
- Compile professional standard lab reports with critical data analysis.
- Work independently and efficiently for course work and the lab.

## Course Website

Students should check OWL (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. The missing of critical information due to your failure to check OWL cannot be used as a basis for appeal.

## Evaluation

### Components

The overall course grade, out of 100, will be calculated as listed below. Listed next to the respective components are their maximum contributions toward the course grade.

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