

Text Book: There are no required textbooks for this course. Primary literature will be used extensively in this course. Class notes will be available in Quercus for each module.

Email Policy:

Please use the following guidelines when sending emails:

- i. Use your "utoronto.ca" email account for all your correspondence. If other accounts (Yahoo, Gmail, Hotmail, etc.) are used, your email may be filtered out as spam and thus not be received.
- ii. Put "*CHMD47*" in the subject line followed by the reason for the email and use professional language with a formal greeting.
- iii. Sign the email with your first and last name. Include your student ID number after your name.

Every effort will be made to respond to student emails within 36 hours (M-F), provided that the above protocol is followed.

Website:

CHMD47H3 maintains a Quercus webspace, which archives various course-related information, including grades, class announcements, lectures, and lab materials. In addition, class emails will be sent periodically to your "utoronto.ca" email account. **To log in**, go to: <https://q.utoronto.ca>. First, log in using your UTORid username and password. Then click on the CHMD47H3 link.

Announcements:

Official announcements regarding the test schedule, material covered for each test, and other important information will be posted on the CHMD47H3 course website. It is your responsibility to check these postings regularly for important announcements.

Accessibility:

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the *AccessAbility* Services Office as soon as possible. I will work with you and *AccessAbility* Services to achieve your learning goals in this course. Enquiries are confidential. The UTSC *AccessAbility* Services staff (located in S302) are available by appointment

Assessment and Grading Practices:

Graded Work	Weight (%)
Tutorial Assignments (three problem sets in total, 5% each)	15
Experiential Learning Project	20

Term Test I

Accommodations for Academic Conflicts, Time Zone Conflicts

For missed term work due to an ACADEMIC CONFLICT (i.e., two quizzes or tests scheduled at the same time), please complete the following process:

1. Complete the **Request for [Missed Term Work Form](#)** choosing "Other" as your reason for missed work and explaining the conflict in the space provided.

Deadline: You should report the conflict **at least two weeks (10 business days) before the date of the activity** or as soon as possible if it was not possible to identify the conflict earlier.

Note: Multiple assignments due on the same day are not considered conflicts. Accommodations may only be possible in the case of quizzes and tests that are both scheduled during the same discrete period. Back-to-back tests/quizzes are not considered conflicts.

Note: Students are responsible for keeping their course timetables conflict-free. Students who

Academic Integrity:

Academic integrity is one of the cornerstones of the University of Toronto. It is critically important both to maintain our community which honours the values of honesty, trust, respect, fairness, and responsibility, and to protect you, the students within this community, and the value

CHMD47H3 Lecture Schedule (*Tentative):

Note: Suggested readings from primary literature and class notes will be posted under each lecture module.

Week	Topic(s)
1	Protein Folding and Structural Evolution
2	Hemoglobin: Protein Function in Microcosm
3	Rates of Enzymatic Reactions
4	Enzymatic Catalysis
5	Types of Inhibitors & Designing a Mechanism-Based Inhibitor
6	Signal Transduction & Transport Through Membranes
Feb 22nd- Feb 25th	Reading Week
7	Alternate Pathways of Carbohydrate Metabolism
8	Biocatalysis in Organic Synthesis
9	Small Biological Probes
10	Nucleic Acid Nanotechnology
11	Nucleic Acids in Medical Applications
12	Current Developments in Nucleic Acid Therapeutics
April 9 th - April 12 th	Study Break
April 13 th - April 29 th	Final Exam Period

Lecture Topics and Learning Outcomes

1. Protein Folding and Structural Evolution
 - i. Understand protein renaturation and the determinants of protein folding
 - ii. Develop an understanding of protein dynamics
 - iii. Learn about amyloidogenic proteins and conformational diseases
2. Hemoglobin: Protein Function in Microcosm
 - i. Be able to have a deeper understanding of the hemoglobin structure, function, and mechanism
 - ii. Develop an understanding of allosteric regulation
 - iii. Learn about abnormal hemoglobin and molecular basis of Sickle-Cell Anemia
3. Rates of Enzymatic Reactions

