

## COURSE OUTLINE – Winter 2019

### CHEM 2773: Biochemistry for Life Sciences

**Instructor:** Dr. Amitabh Jha: [ajha@acadiau.ca](mailto:ajha@acadiau.ca); Office: E120B, Tel: 902-585-1515

**Office Hours:** Mondays 1:30-4:30 pm (and by appointment)

**Recommended Text:** Fundamentals of Biochemistry: Life at the Molecular Level Edition 5, by Voet, Voet and Pratt. Wiley Global Education. The textbook is **NOT required**, but access to an undergraduate level biochemistry textbook is recommended.

**Lectures:** M/W/F, 11:30-12:30 pm (E207)

**Requirements:** The prerequisite for this course is CHEM 2513 (Introductory Organic Chemistry 1) with a minimum grade of C-.

#### Marking Scheme:

Midterm 1	20% (Wednesday Feb 6, in class)
Midterm 2	20% (Wednesday Mar 6, in class)
Assignments	20%
Final Exam	40% (Cumulative; to be held in April; scheduled by registrar's office)

There will not be any make-up midterm exam. If the midterm is missed with a valid excuse (as determined by the Registrar), that percentage of your grade is transferred to the final exam.

**Topics to be covered:** Generally speaking, this is a terminal biochemistry course which is intended to impart a good understanding of biochemistry and biochemical processes and their underlying principles in sufficient details. This course, which does not include a laboratory component, may not allow you to pursue higher level biochemistry courses in future. Topics to be examined include:

1. Review of relevant fundamentals of chemistry (1st Year and 2 yr Organic).
2. Introduction to Biochemistry
3. Water and its role in Biochemistry
4. Nucleotides, Nucleic Acids and Genetic Information
5. Amino Acids, Peptides and Proteins
6. Carbohydrates
7. Lipids and Biological Membranes
8. Enzymes
9. Food Digestion
10. Glycolysis
11. Citric Acid Cycle
12. Electron Transport and Oxidative Phosphorylation
13. Lipid Metabolism [Time permitting]
14. Amino acid metabolism [Time permitting]

**Assignments:** An assignment will be due (posted in the beginning of the week) every Friday (except 1st/last/study week).

## **COURSE OUTLINE – Winter 2019**

### **CHEM 2773: Biochemistry for Life Sciences**

**Organization:** The course consists of three 50 min lectures. Although attendance at lectures is not mandatory, you would be well advised not to miss any. Experience has shown that students who usually attend class do well, whereas those who do not attend classes tend to fail.

**Tutorials:** During the course of the term, tutorial sessions will be held.

#### **Online Learning:**

ACORN: Class syllabus, supplementary materials, class announcements, assignments and other important information will be posted on ACORN.

#### **Accessible Learning Services:**

If you have a documented disability and require support or accommodations, please contact Dr. Abu Kamara, Coordinator, Accessible Learning Services at 902-585-1291, [abu.kamara@acadiau.ca](mailto:abu.kamara@acadiau.ca) or Kathy O'Rourke, Disability Resource Facilitator at 902-585-1823, [disability.access@acadiau.ca](mailto:disability.access@acadiau.ca). Accessible Learning Services is located in the Fountain Commons, Lower Level.

#### **Academic Integrity:**

It is your responsibility to acquaint yourself with the university policy on academic integrity. Academic dishonesty such as cheating and plagiarism are not tolerated. Any form of academic dishonesty in examinations, tests, labs, or assignments is subject to serious academic penalty. A full description of the penalties associated with academic dishonesty is outlined in the 2018-2019 Undergraduate Calendar.