



INDIANA UNIVERSITY  
NORTHWEST

Indiana University Northwest  
Chemistry C110 – Chemistry of Life

**Text:** Timberlake. "Chemistry "An Introduction to General, Organic, and Biological Chemistry". Pearson, 2015.

**Course Description** This course provides fundamental concepts throughout general chemistry, organic chemistry and biochemistry and is primarily designed for students pursuing a health care degree. This course provides an introduction to elements, compounds, major macromolecules, and chemical properties associated with living systems. The primary topics will consist of: atomic theory, nuclear chemistry, physical states of substances, unit conversion, concentration, chemical reactions, nomenclature and chemical bonding, organic molecules and functional groups, organic reactions, amino acids and proteins, carbohydrates, and lipids.

**Attendance**

Because of the building nature of chemistry material, consistent and regular attendance at lectures is essential. Attendance is recorded and up to 30 points of your final course grade will be based on this attendance record.

**Homework**

Homework assignments for each chapter can be accessed through **My Lab and Mastering** which is available through Canvas. A pre-course assignment is also included that you wish to consider reviewing if you are unfamiliar with Mastering: *Introduction to Mastering* which will provide you with training on how to interact with the system. It will be available for the duration of the course. The chapter assignments to help you prepare for the exams will be due at 11:59 pm the day immediately preceding the exam day. Each

assignment is worth 20 points. Each chapter homework assignment will contain between 10-20 questions.

### Quizzes

Short 30 point quizzes will be given periodically throughout the course during the last portion of class periods as indicated in the syllabus. Your 2 lowest quizzes will be dropped. These quizzes cannot be made up except in the case of serious illness or family emergencies. Prior notification of an absence is required before the scheduled quiz is to be given.

### Exams

Each exam will usually consist of 40-50 multiple choice questions. Exams will focus on application of skills taught in the lecture. The only valid reasons for absence from a scheduled exam are serious illness or family emergencies. Documentation may be required. If a student needs to miss an exam, the instructor must be contacted prior to the beginning of the exam; a make-up exam must be arranged with the instructor and completed within one week of the original exam date.

### Grading:

4 Exams @ 150 points each	600 points
8 quizzes @ 30 points each	240 points
16 Homework Sets @ 20 points each	320 points
Attendance	30 points
Total Points	1190 points

The following approximate grading scale will be used:

100 - 90 %	A
89-80 %	B
79-70 %	C
69-60 %	D
Below 60 %	F

### *Student Academic Misconduct*

The **Indiana University Code of Student Rights, Responsibilities, and Conduct** describes types of misconduct for which students may be penalized, including cheating, fabrication, plagiarism and interference with other students' work, as well as actions which endanger the University community and possession of firearms. The Code also indicates the procedures to be followed in these cases. **All students are required to adhere to the responsibilities outlined in the Code.** The definition and clarification related to cheating, plagiarism, etc. can be found on the IU Northwest website under the Academic Affairs tab.

*Expectations of classroom behavior:* A classroom is analogous to a professional environment. Students are expected to behave professionally so that everyone can engage fully in the educational process, which means that disruptive behavior during class is prohibited. This includes, but is not limited to, arguing with the instructor about grades or assignments, arguing with other students, bringing up individual concerns with the instructor in the middle of class, or using language or exhibiting other behavior that distracts others from engaging fully in the academic enterprise. A student who disrupts the learning environment will be asked to stop the behavior immediately; if the disruptive behavior continues, the student will be asked to leave the class session.

### *RIGHT TO ACCOMMODATION FOR INDIVIDUALS WITH DISABILITIES*

Indiana University is committed to creating a learning environment and academic community that promotes educational opportunities for all individuals, including those with disabilities. Course directors are asked to make reasonable accommodations, upon request by the student or the university, for such disabilities. It is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation. Indiana University will make reasonable accommodations for access to programs, services, and facilities as outlined by applicable state and federal laws.

**Campus support office:**

Student Support Services location: HH 29, (219) 980-6798  
Student Support Services online: [www.iun.edu/~supportn](http://www.iun.edu/~supportn)

**Sexual Misconduct:** What you should know about sexual misconduct: Indiana University does not tolerate acts of sexual misconduct, including sexual harassment and all forms of sexual violence. If you have experienced sexual misconduct, or know someone who has, the University can help. It is important to know that federal regulations and University policy require faculty to promptly report incidences of potential sexual misconduct known to them to our campus Deputy Title IX Coordinator(s) to ensure that appropriate measures are taken and resources are made available. The University will work with you to protect your privacy by sharing information with only those that need to know to ensure we can respond and assist. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with a counselor in the IU Northwest Counseling Center (Hawthorn Hall 201). Find more information about sexual violence, including campus and community resources at <http://stopsexualviolence.iu.edu/>.

### **Withdrawal Policy**

A student may withdraw at any time through March 13 without the consent of the instructor and receive the grade of W. Any student who decides to drop the course must fill out a withdrawal form or they will receive the grade of an F. After March 13 a student may withdraw only with the permission of his or her Dean. The approval is given only for urgent reasons related to extended illness or equivalent distress. To qualify for a grade of W, a student must be passing the course on the day of withdrawal. If the student is failing, the grade recorded on the withdrawal date will be an F. This paragraph is Indiana University policy.

### **General Information**

\*a topic outline for each chapter will be available on Canvas; review this and your notes for exams and quizzes; there are many websites that provide additional practice as well

\*access to cell phones and other electronic communication devices are not allowed during quizzes and exams

Office: \*\*\*You can reach me 24 hours a day, 7 days a week at [dharnish@lcscmail.com](mailto:dharnish@lcscmail.com)

*Course Outline*

Jan. 11 (M)	Introduction to Course Ch. 1- Chemistry in our Lives
Jan. 13	Ch. 2-Chemistry and Measurements <b>(Quiz Chapter 1)</b>
Jan. 18 (M)	<b>No Class</b>
Jan. 20	Ch. 2-Chemistry and Measurements
Jan. 25 (M)	Ch.3-Matter and Energy <b>(Quiz Chapter 2)</b>
Jan. 27	Ch.3-Matter and Energy
<b>Jan. 31</b>	<b>Homework Ch. 1-3 due at 11:59 PM through Mastering</b>
Feb. 1 (M)	<b>Unit 1 Exam (Chapters 1-3)</b>
Feb. 3	Ch. 4-Atoms and Elements
Feb. 8 (M)	Ch.4-Atoms and Elements
Feb. 10	Ch.5-Nuclear Chemistry <b>(Quiz Chapter 4)</b>
Feb. 15 (M)	Ch.5-Nuclear Chemistry
Feb. 17	Ch. 6-Ionic and Molecular Compounds <b>(Quiz Chapter 5)</b>

Feb. 22 (M)	Ch. 6-Ionic and Molecular Compounds
<b>Feb. 23</b>	<b>Homework Ch. 4-6 due at 11:59 PM through Mastering</b>
Feb. 24	<b>Unit 2 Exam (Chapters 4-6)</b>
<b>Feb. 29 (M)</b>	Ch.7-Chemical Quantities and Reactions
March 2	Ch.7-Chemical Quantities and Reactions
<b>March 7 (M)</b>	Ch.8-Gases <b>(Quiz Chapter 7)</b>
March 9	Ch.8-Gases
<b>March 13</b>	<b>Automatic Withdrawal Deadline</b>
<b>March 14</b>	<b>No Class</b>
<b>March 16</b>	<b>No Class</b>
<b>March 21 (M)</b>	Ch. 9-Solutions <b>(Quiz Chapter 8)</b>
March 23	<b>No Class</b>
<b>March 28 (M)</b>	Ch.9-Solutions
March 30	Ch. 10-Acids, Bases, Equilibrium <b>(Quiz Chapter 9)</b>
<b>April 4 (M)</b>	Ch. 10-Acids, Bases, Equilibrium
<b>April 5</b>	<b>Homework Ch. 7-10 due at 11:59 PM through Mastering</b>
April 6	<b>Exam 3 (Chapters 7-10)</b>

<b>April 11 (M)</b>	Ch. 11-Introduction to Organic Chemistry: Hydrocarbons
April 13	Ch. 11-Introduction to Organic Chemistry: Hydrocarbons
<b>April 18 (M)</b>	Ch. 12-Alcohols, Thiols, Ethers, Aldehydes, and Ketones <b>(Quiz Chapter 11)</b>
April 20	Ch. 14-Carboxylic Acids, Esters, Amines, and Amides <b>(Quiz Chapter 12)</b>
<b>April 25 (M)</b>	Introduction to Biochemistry: Ch. 13-Carbohydrates Ch. 15-Lipids Ch. 16-Amino Acids, Proteins, and Enzymes <b>(Quiz Chapter 14)</b>
April 27	Introduction to Biochemistry: Ch. 13-Carbohydrates Ch. 15-Lipids Ch. 16-Amino Acids, Proteins, and Enzymes
<b>May 2 (M)</b>	<b>Optional Review Day</b>
<b>May 3</b>	<b>Homework Ch. 11-16 due at 11:59 PM through Mastering</b>
May 4	<b>Exam 4 (Chapters 11,12,13,14,15,16)</b>

### *Study Suggestions*

\*Read the material before lecture; take notes, jot down questions along the way

\*Complete the homework assignment for every chapter!

\*Don't fall behind; if you are stuck on a concept, please visit me during office hours so we can clear up the confusion

\*Study for the required quizzes; note that the quizzes add up to 240 points of the overall grade!