Fall 2017 - CHEMISTRY 110-0002 Course #2776: (3 credit hours)

Instructor/Contact Info: Dr. Linh Nguyen, FW 324, phone: 753-6011, email: bnguyen2@niu.edu
Office Hours: Tuesday 10:00-10:50am, Wednesday 09:00-09:50am (Faraday 238), and Thursday 05:00-05:50pm (FW324)**;** or by appointment

On-Line Course Information: Blackboard (https://webcourses.niu.edu)
Materials: General, Organic, and Biochemistry (9th Edition) by Denniston; on-line homework package

Lecture Times: Monday, Wednesday, and Friday @ 10:00 – 10:50am in Faraday Hall 143

Tutors and Lab TA Office Hours: The Department of Chemistry and Biochemistry maintains a free Tutor Room for General Chemistry students. The Tutor Room is located in **Faraday 247** and the schedule will be posted online (http://www.niu.edu/chembio/academics/undergraduate/help-room.shtml) and outside the help room door. Students are also encouraged to ask laboratory TAs for assistance in understanding the lecture material.
Paid Tutors - Names of tutors for hire are available from Linda Davis in Faraday 319 (Dept. office).

Exams and Grading:
Exams – There will be four 100-point hour exams, with each exam covering content from 2-3 chapters. These exams will be administered during the regular semester (dates are indicated in the lecture schedule). *The lowest regular exam score will be dropped. This allows you to miss an exam if absolutely necessary, and minimizes the effect of one poor score on the overall grade.* ***There will be no make-up exams or extra credit points.*** *The professor will deal with any issues that affect your ability to take an exam (medical issues, weather closures, etc.) on a case by case basis.* Any student more than 30 minutes late to any exam will not be allowed to take it. You must attend your registered section for all exams, no exceptions.

Homework – 100 points. All the homework will be online using the Connect and LearnSmart technologies. See separate handout for more information. Connect and LearnSmart cannot be accessed through smart phones and iPads, you must use a computer.

VERY IMPORTANT: Homework is a third of your grade. You MUST do the homework ON TIME. THERE WILL BE NO MAKE-UP HOMEWORK OR EXTENSION. There is one homework due almost EVERY Wednesday and Friday, except on the exam date.

Final Exam - The final exam will consist of two parts: Part I counts as one of the four 100 pt. hour exams described above, and Part II is a 100 pt. comprehensive exam. **Final: Monday, December 11th 10:00 – 11:50 am in Faraday Hall 143**

Total points:	Hourly exams	= 300 pts. (lowest of four exams is dropped)
	Homework	= 100 pts.
	Comprehensive final exam	= 100 pts.
	Total	= 500 pts.

Grading scale: A ≥ 450 B ≥ 400 C ≥ 350 D ≥ 300 F < 300
This scale may be revised, but this is not guaranteed.

Accessibility Statement: Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability will be encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or drc@niu.edu.

Academic Integrity. Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an assignment written, in whole or in part, by someone else. Students are responsible for plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students responsible for, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the

university.

TENTATIVE LECTURE SCHEDULE

WEEK	CHAPTER/TOPIC	Exams
1. 08/28	Introduction/Chapter 1 (Sections 1.1-1.5)	
2. 09/04	Labor Day – No class	
3. 09/06-08	Chapter 2. (Sections 2.1-2.4)	
4. 09/11	Chapter 2. (Sections 2.5-2.7)	
5. 09/18	Chapter 3. (Sections 3.1-3.3)	
6. 09/25	Chapter 3. (Sections 3.4-3.5)	**Exam 1 (chapter 1, 2, 3)**
7. 10/02	Chapter 4. (Section 4.1-4.4)	
8. 10/09	Chapter 4. (Sections 4.5-4.9)	
9. 10/16	Chapter 5. (Section 5.1-5.3)	
10. 10/23	Chapter 6. (Sections 6.2-6.3)	**Exam 2 (chapter 4, 5)**
11. 10/30	Chapter 7. (Sections 7.1-7.2)	
12. 11/06	Chapter 7 (Sections 7.3-7.4)	
13. 11/13	Chapter 8. (Sections 8.1-8.4)	
14. 11/20		**Exam 3 (chapter 6, 7)**
15. 11/22-24	Thanksgiving Break	
16. 11/27	Chapter 9. (Sections 9.1-9.3)	
17. 12/04	Chapter 9 (Section 9.4-9.6)	
18. **12/11**	**Exam 4 (chapter 8 ,9) /Final Exam @ 10:00 – 11:50am**	

General Education Course Objectives

- Improve ability to think critically and logically
- Perform basic chemical computations and improve ability to reason quantitatively
- Improve ability to interpret mathematical models
- Learn how to use the scientific method and theories to understand chemical phenomena
- Develop an appreciation for the importance of the role of chemistry in everyday life
- Develop an understanding of the historical development of the field of chemistry

Course Content Objectives

- Understand concepts of matter and energy and become acquainted with metric and SI units of measurement
- Understand atoms and ions and their subatomic components
- Learn the electronic structures of atoms and ions, and understand their relationship to periodic properties
- Correctly predict the shapes of molecules and ions from Lewis dot/VSEPR characteristics
- Learn chemical nomenclature
- Learn basic stoichiometry calculations
- Develop ability to predict outcomes of chemical reactions from knowledge of reactants and reaction types
- Understand the chemical basis for the physical behavior of gases, liquids, and solids
- Become knowledgeable about the properties of aqueous solutions
- Develop the ability to predict reactions and equilibria from knowledge of Le Chatelier's Principle
- Understand the physicochemical characteristics of acids, bases, oxidants, and reductants
- Become knowledgeable about nuclear chemistry and its applications to medical fields