

**Foundations of Chemistry I- Chemistry 121
Fall 2019****Instructor: Name**

xxxx@odu.edu, 757-683-xxxx

Course Time and Location: BAL 1012, MWF 2 – 2:50pm

Office Hours: Monday 10-12, Wednesday 12-1:50 Building, Office xxx

Contact Policy

E-mail is the best method to communicate with me. Additionally, you may come by during office hours or other times that I am in the office with specific questions.

Course Description

This is the first of a two-course series, designed for science and engineering majors, that prepares the student for subsequent studies in molecular science and constitutes the foundation for all upper-level chemistry courses. Topics include the descriptive chemistry of selected elements, modern atomic and molecular structure, stoichiometry, thermochemistry, and gas laws. A student receiving credit for CHEM 121N cannot receive additional credit for CHEM 103 or CHEM 105N or CHEM 137N. CHEM 121N + CHEM 122N satisfy 4 credits of the University's Nature of Science general education requirement. Prerequisites: MATH 102M or MATH 103M or higher with a grade of C or better and a qualifying score on the Chemistry Placement Exam or successful completion of the Chemistry Placement online modules or CHEM 103. Pre- or corequisites: CHEM 122N.

Course Objectives

After completing the course, students should be able to...

- Demonstrate a basic understanding of chemical principles
- Apply chemical and physical principles to familiar and unfamiliar situations.
- Collect and analyze data conceptually, numerically, and graphically.
- Explain the importance of chemistry and science in general to human progress.
- Demonstrate an understanding of how chemistry applies to their major field of study.

Required Materials

Textbook: Chemistry: The Central Science by Brown, LeMay, Bursten et al., 13th edition; Pearson Education Inc. (Prentice Hall), 2014. You may also use the 12th edition or 14th edition of this text. Used texts are also available online. We will not use the Mastering Chemistry homework (free with bookstore textbook package) so you do not need to purchase this item if you chose to purchase the textbook online.

Calculator: For your Unit Tests and final exam, you will need your own non-programmable scientific calculator. Graphing calculators are not permitted.

Bound Notebook: Composition or Spiral Bound notebook will be used for portfolio entries.

Optional Materials

The **ACS Exam Study Guide** is available at the reserve desk in the library, or it may be purchased online. The order form is available at <http://shopping.na1.netsuite.com/s.nl/c.3773982/sc.11/category.190/f>. This may help you on the final exam and is useful for both CHEM 121N and 123N.

Recitation

All students registered for the CHEM 121N lecture must also be registered for and are required to attend recitation. In recitation, you will review the concepts presented in lecture and do activities to help you understand these concepts. If you miss a recitation, you will receive a zero for participation for that day. In the rare case that an emergency occurs, the student must contact me (Dr. Wallach) concerning excusing or making up missed work.

Recommendations For Success

Stay ahead or at least keep up. We will be moving at a fast pace with some difficult content. The assignments you receive from me are the minimum. You should be doing additional exercises from the book, which you can check either in the back of the book (most odd questions) or in an optional solutions manual. Even if you do not work problems, looking at the solutions can be a big help.

Grading Criteria

Unit exams 56%, Comprehensive Final exam 20%, Portfolio 7%, Chapter Quizzes 7%, Lecture Attendance and Participation 5%, Lecture Video Questions 3%, Recitation attendance and participation 2%,

Chapter Quizzes are administered through Blackboard and are due by the dates and times specified with the quiz. The overall chapter quiz grade for the course will be the average of the chapter quiz grades.

Lecture Video Questions are administered as part of the lecture videos and are due according to the due date shown in the title of the folder in which the video is housed as well as on the course calendar. Each set of questions has unlimited attempts and students must achieve a 100% for the score to count. The overall lecture video question grade will be the average of the lecture video question grades.

The portfolio is essentially your notes for the lectures. These will be checked at the beginning of every class session and are due according to the course calendar. More details regarding the portfolio can be found on the course Blackboard site.

Grading Scale

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
> 92.5	92.5 – 89.5	89.5 – 86.5	86.5 – 82.5	82.5 – 79.5	79.5 – 76.5	76.5 – 72.5	72.5 – 69.5	69.5 – 66.5	66.5 – 62.5	62.5 – 59.5	< 59.5

Blackboard

Grades and Lecture Notes will be posted to blackboard when they become available. Additionally, blackboard will be used for communication so it is essential that you have access to it. Your university email username and password will give you access to blackboard. You should frequently check the blackboard site for class information and announcements. This is your responsibility. www.blackboard.odu.edu

Attendance

As per university policy, students are expected to attend classes. Even though lecture notes are available on blackboard, it is important for you to attend class to get supplemental materials and discussions on the material. Do not expect to succeed if you do not attend class. Missed tests and the final exam will receive a grade of zero unless the absence is excused. Excused absences will only be given for serious illnesses with a doctor's statement or a serious emergency. If possible, arrangements must be made ahead of time.

Electronic Device Use

Electronic devices such as laptops and tablets may be used in lecture as long as their use is related to taking notes for the class. They may not be used to do homework, surf the internet, play games or do other activities unrelated to taking notes for the class. Students who do not use their electronic devices appropriately will be asked to turn them off and/or to leave the classroom. Mobile phones must be on silent and stored during class. In recitation, electronic devices may only be used to review notes and/or take notes.

Exams

Unit Exams 1-3 will be administered in the College of Sciences Testing Center on the Fourth Floor of the Library. Before you can take your exam, you must make an appointment to take it. Normally, you can make your appointment a week in advance of the exam. Appointments must be made by 5pm the day before the exam.

Procedure for registering for exam 1-3

1. Go to the College of Sciences Testing Center web site, <https://itsapps.odu.edu/lal/>, login using your email ID and password, and click on the "View the semester lab schedule" link. Click on the day of your exam with your instructor's name (Wallach), and choose a time to take the test. Note that the time slots allow for time to enter and exit the exam. You must leave when your allotted time is over.
2. Please register several days prior to the exam. Please make sure that you have the time available to take your exam BEFORE you register. No online registrations are permitted after 5 pm on the day before the exam. If you fail to register to take the exam, you must contact Dr. Wallach as soon as possible. Failure to register for an exam or missing an exam without a valid excuse means that you may receive a zero for the exam.

In order to take your exam, you must arrive at the College of Sciences Testing Center at the time scheduled for your exam. If you are late, it is likely that you will not be able to take your exam. Please refer to the lecture schedule table for the dates of the Unit exams.

Unit Test 4 will be given in class during the last week of classes. No registration is required.

The comprehensive Final Exam is the American Chemical Society First-Term General Chemistry exam and will be given in BAL 1012 on Wednesday, Dec. 11th, at 12:30PM. The exam has a time limit of 110 minutes. For your final exam, you will need your own non-programmable scientific calculator. Graphing calculators are not permitted. Your calculator will be checked at the door.

Make-Up Exams

Make-up exams will be given only when you have a documented emergency (illness or accident, death in the immediate family, etc.). Should an emergency arise, you must notify your lecture instructor (preferably by e-mail) BEFORE the test. If you notify your instructor after the test, then whether or not a make-up exam is given will be at the instructor's discretion. In the case of illness, you must bring your instructor a written statement from your physician stating that you were too sick to take the exam. Proof of involvement in an automobile accident (accident report) or death in the family will also be required. This must be done BEFORE you will be given the make-up exam. Missed make-up exams will not be re-scheduled.

University Policies**College Classroom Conduct**

The following standards are intended to define acceptable classroom behavior that preserves academic integrity and ensures that students have optimum environmental conditions for effective learning.

1. Students must turn off cell phones and pagers during class or have them set to vibrate mode.
 2. Classes are expected to begin on time, and students will respect the time boundaries established by the professor. If classroom doors are locked, students may not knock or seek entrance in other ways.
 3. Students should notify instructors in advance when a class will be missed. In the event of an emergency that causes a class to be missed, instructors must be notified as soon as possible.
 4. Instructors may require that cell phones and other electronic devices be left on their desks during tests or examinations.
 5. Students must not engage in extraneous conversations during classes. Such acts are considered to be violations of the Code of Student Conduct.
 6. Students will activate their Old Dominion email accounts and check them before each class. If the student chooses to have his/her messages forwarded to another account, it is the student's responsibility to take the necessary steps to have them forwarded.
 7. Consumption of food and drink during class is prohibited, except when the professor has specifically approved of such acts.
 8. Offensive language, gestures and the like are disrespectful and disruptive to the teaching-learning process.
- [http://studentservices.odu.edu/osja/ccp_pamphlet.pdf]

Honor Pledge

"I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned." By attending Old Dominion University you have accepted the responsibility to abide by this code. This is an institutional policy approved by the Board of Visitors. For more information please visit Honor Council]

Special Needs

Old Dominion University is committed to achieving equal educational opportunity and full participation for persons with disabilities. It is the university's policy that no qualified person be excluded from participation in any university program or activity, be denied the benefits of any university program or activity, or otherwise be subjected to discrimination with regard to any university program or activity. This policy derives from the university's commitment to non-discrimination for all persons in employment, access to facilities, student programs, activities and services. You may view the policy online: Old Dominion University Policies and Procedures 4500 - Accommodation of Students with Disabilities (pdf). For additional information visit the Office of Educational Accessibility online.

University Email Policy

The Old Dominion University e-mail system is the official electronic mail system for distributing course-related Communications, policies, Announcements and other information. In addition, the University e-mail user ID and password are necessary for authentication and access to numerous electronic resources (online courses, faculty Web pages, etc.) For more information about student email, please visit: <http://www.odu.edu/academics/student-computing>.

Withdrawal

A syllabus constitutes an agreement between the student and the course instructor about course requirements. Participation in this course indicates your acceptance of its teaching focus, requirements, and policies. Please review the syllabus and the course requirements as soon as possible. If you believe that the nature of this course does not meet your interests, needs or expectations, if you are not prepared for the amount of work involved - or if you anticipate that the class meetings, assignment deadlines or abiding by the course policies will constitute an unacceptable hardship for you - you should drop the class by the drop/add deadline, which is located in the ODU Schedule of Classes. For more information, please visit the Office of the University Registrar.

Course Disclaimer

Every attempt is made to provide a syllabus that is complete and that provides an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester. This may depend, in part, on the progress, needs, and experiences of the students.

Lecture Schedule for Fall Semester, 2019

Date	Topic
Aug. 26 th – Sept. 13 th	Unit 1: Chapters 1-3
Sept. 3 rd	Last day to drop
Sept. 16 th	Unit Exam 1 in COS Testing Center (No lecture)
Sept. 18 th – Oct. 9 th	Unit 2: Chapters 3-5
Oct. 10 th and 11 th	Unit Exam 2 in COS Testing Center (No Lecture)
Oct. 14 th	No Class – Fall Break
Oct. 16 th – Nov. 4 th	Unit 3: Chapters 6-8
Nov. 5 th	Last day to withdraw
Nov. 5 th and 6 th	Unit Exam 3 in COS Testing Center (No Lecture)
Nov. 8 th – Dec. 2 nd	Unit 4: Chapters 9-10
Dec. 4 th	Unit Exam 4 in Lecture
Dec. 11 th	Final Exam in BAL 1012 12:30 pm

Chapters covered from “Chemistry: The Central Science” 13th edition.

1. Introduction: Matter and Measurement
2. Atoms, Molecules, and Ions
3. Chemical Reactions and Reaction Stoichiometry
4. Reactions in Aqueous Solution
5. Thermochemistry
6. Electronic Structure of the Atom
7. Periodic Properties of the Elements
8. Basic Concepts of Chemical bonding
9. Molecular Geometry and Bonding Theories
10. Gases