

Principles of Chemistry II (CHEM 102)

Welcome to Chemistry!

Course Description:

Chemistry 102 is the second half of an introductory two-semester course primarily designed for those students who plan to continue their chemical education beyond the elementary level. We will find, however, that Chemistry 102 is a valuable experience not only for aspiring chemists, chemical engineers, medical doctors, dentists, pharmacists, and so forth, but for thoughtful students of all disciplines. You will also discover that chemistry is truly a central science.

Required Materials:

Text: *Chemistry: Atoms First, 2nd edition*; Burdge/Overby; McGraw-Hill

This course is participating in the Course Materials Initiative. Your textbook is digital and is provided through VitalSource Bookshelf. You can read your eTextbook online via Blackboard (there is a button labeled Textbook) or download it to different devices including your computer, tablet, Kindle or smartphone. Your tuition bill will be charged. Please see <http://bookstore.umbc.edu/cmi> for more information.

A solutions manual is available for purchase at the UMBC bookstore to supplement your digital textbook. It is strongly recommended that you get a solutions manual to aid in solving end of chapter problems.

The Chemistry Department has voted to require students enrolled in CHEM 101 and CHEM 102 to use either the TI-30XIIS or the TI-30XA calculator. Absolutely no exceptions will be permitted during an exam. It is your responsibility to use the correct calculator. Attempts to use an “illegal” calculator can result in temporary confiscation and you will have to take the exam without a calculator.

Instructors:

Dr. Tara Carpenter	Office: MEYR 112
Office Hours: by appointment	Email: carpent@umbc.edu

Dr. Wendy Olson	Email: wolson001@umbc.edu
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What do I do if I need help?

If you have a question about chemistry, what will be on an exam, what equations you need to know, etc. you should post them on the appropriate discussion board on Blackboard. The discussion boards will be monitored by Drs. Olson and Carpenter. All content related questions submitted by email will not be answered. If you have a personal problem or will be absent, you should contact Dr. Olson directly through email. When you email, make sure you include a **subject line** that includes **your name and the class**. An example is “CHEM 101, Section 01, John Doe”. **Be detailed** in your email. If you have a question about grading, **please include your Student ID**. If you wish to make an appointment, **suggest 3 or 4 possible meeting times**, and I will get back to you.

Meeting Times:	102-01 (1031)	T/Th	at	9:00 – 12:10	FA 306	Lecture
	102-02 (1032)	T/Th	at	1:00 – 2:50	UC 201	Discovery
	102-03 (1084)	T/Th	at	3:00 – 4:50	UC 201	Discovery

Discovery begins Tuesday, July 12.

According to UMBC regulations, CHEM 101 may not be repeated if CHEM 102 is taken for a grade. Since CHEM 102 is a prerequisite for CHEM 351, it cannot be repeated if CHEM 351 has already been taken for a grade. CHEM 101 with a grade of 'C' or better is a prerequisite for Chemistry 102. If you do not meet one or more of the above requirements, it is highly recommended that you drop this course. Transcripts will be checked and violators will receive a grade of "F". This is your warning.

In addition, CHEM 102 is a co-requisite of CHEM 102L (the laboratory course). Hence, if you drop Chemistry 102, you must also drop CHEM 102L. Failure to do so will result in a grade of "F" for CHEM 102L.

Blackboard:

Blackboard will be used in this course. There you can find the syllabus, helpful handouts, lecture note outlines, exam answer keys, grades, Discovery answer keys, discussion boards and more. It is your responsibility to check Blackboard DAILY for announcements, changes to schedule, etc.

Grading:

Your final grade is dependent on a midterm exam, a final exam, online homework (ALEKS), in-class clicker questions, and Discovery. The breakdown is as follows:

Clickers:	15%
Quizzes:	20%
Discovery:	20%
ALEKS:	15%
Final Exam	30%

Grade %	Final Letter Grade
90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
< 60%	F

Lecture:

The overall direction and instructional format of the lectures will be conducted by Dr. Carpenter. It is highly recommended that you come to class so that you take full advantage of the resources available to you. You are responsible for all material and announcements presented in lecture, which will begin promptly at 9:00 AM. We will generally have a short break (5 - 7 min) each hour. Lecture ends at 12:10 PM.

Prior to each lecture, you should read the corresponding section in the textbook as outlined on the last page of the syllabus. Some material will be covered only lightly in order to devote more time to problem solving and concept application in class. Class time will be most lucrative for you if you read the book ahead of time, and work some of the problems.

Clickers (15%):

You will be asked to respond to several questions during each class. You must have a Turning Technologies (TT) clicker to respond. Throughout the class period, questions will be asked that are designed for student learning and engagement and will build upon the material in the reading. Correct answers are worth 5 points and incorrect answers are worth 2 points. You may be asked to answer questions independently or in a group (as indicated by Dr. Carpenter). Therefore it is important for you to come to class prepared.

It is your responsibility to confirm that your points are recorded to Blackboard after every class. If you think your clicker isn't working, contact Turning Technologies immediately! I strongly recommend having spare batteries in case the batteries give out during class. It takes two coin cell CR2032 (3.0V) lithium batteries.

It is academic misconduct to bring someone else's clicker to class and/or to have someone bring your clicker to class. If you are found in possession of someone else's clicker or if it is found that someone brought your clicker to class, you will be reported to the UMBC Academic Misconduct Committee and you will receive an F in the course. Don't risk your grade!

You must register your TT clicker through the course blackboard site. *The serial # is the 6 digit alpha-numeric code below the bar code. The code may include only 0-9 and A-F (not the letter "O" or the letter "I").* You must also create a Turning account and obtain a license code which was emailed to you if you were a UMBC student before March 1, 2016. Otherwise, you will need to purchase one at the UMBC bookstore. If you are required to have a clicker in another class, you only need ONE clicker for all your classes. More information about clickers and creating your account can be found here:

<https://wiki.umbc.edu/pages/viewpage.action?pageId=66159040>

I strongly recommend writing your name on your clicker so that if you lose it, it can be returned to you. If you lose your clicker, you will have to purchase a new one or forfeit the opportunity for points in the class. If you get a new clicker during the course of the semester, register it as you did the first one and all points will be held and continued. You do not need to notify the instructor upon registering a new clicker.

Discovery (20%):

Dr. Diana S. Hamilton; hamilton@umbc.edu; Office: MEYR 366; 410-455-3461; Office hours: by appt

Discovery sessions will be overseen by Dr. Hamilton and experienced teaching assistants. Discovery sessions will be used to guide you through the main concepts in this course.

Discovery will begin on Tuesday, July 12 (the first day of class). Discovery will be worth 20% of your grade in the course. **Attendance is mandatory.** Failure to attend will result in the loss of all points for that class. Up to two absences will be excused for *University recognized documented* reasons. Unexcused absences will be penalized as outlined. See Blackboard for more information about Discovery.

# Discovery Classes Missed	Total % points deducted from FINAL CLASS AVERAGE
1	2
2	4
3	8
4	16
5	32
>5	64

ALEKS (15%):

Homework assignments will be completed using the ALEKS homework system. 7.5% of your grade will be based on the on-time completion of learning objectives throughout the semester. There is an assignment due every day at 9:00 AM except on Sundays. The remaining 7.5% of your grade will be based on complete mastery of concepts by August 18th at 9:00 AM. Please refer to the handouts on Blackboard for more information about ALEKS including how to register.

NOTE: ALEKS is not a replacement for completing the recommended end of chapter problems on your own. It is important that you do not spend all of your time doing calculation type Review Problems while overlooking the Review Questions that are more conceptual. This will lead to lower than expected (and desired) scores.

Quizzes (15%)

Quizzes will be conducted online through the course Blackboard site using the Respondus Lockdown Browser. Generally, you will have a timed quiz after the completion of each chapter (see schedule below). Each quiz will become available at 12:15 PM on the day that we complete each chapter, and must be completed by 11:59 PM three or four days later (see schedule below). The quiz will be timed. Once you start the quiz, you will have a set

amount of time (depending on the chapter) to complete the quiz. You cannot stop/pause the quiz and finish it later. If you do not finish the quiz within the allotted time, or if you exit before the end of the allotted time, you will receive credit for questions you have answered correctly; any questions not completed will receive zero points. Thus, **it is imperative that you set aside the allotted time, and make sure you are free of any distractions (post a note on your door saying “no disruptions!!!” and turn your cell phone OFF!)**. Quizzes submitted after the due date will be subject to a 10% penalty for every 24 hours they are late.

You must take the quizzes without the help of your textbook, notes or additional resources. Quizzes MUST be an independent effort. You may not seek help on the quizzes from any other student (past or present), family members, teachers, or friends. You are also strictly forbidden from discussing quizzes with anyone in your class until after the due date of the quiz (see schedule). **Due to schedule constraints, the Chapter 19 quiz will only cover up through Section 19.5, AND there will be no Chapter 20 quiz. This does not mean that these chapters are any less important, and they will be on the final!**

Your quiz scores will be enhanced if you spend a lot of time working the recommended end of chapter problems from your textbook outside of class. Completing ALEKS and coming to class are simply NOT ENOUGH preparation for a quiz. Simply reading your textbook and notes is not enough. You must do the work. As the old adage goes “practice makes perfect”.

Quiz coverage	Available at 12:15 PM on	Must be <u>completed</u> by 11:59 PM on
Chapter 12	Tuesday, July 12	Friday, July 15
Chapter 13	Thursday, July 14	Monday, July 18
Chapter 14	Tuesday, July 19	Friday, July 22
Chapter 15	Thursday, July 21	Monday, July 25
Chapter 16	Thursday, July 28	Monday, August 1
Chapter 17	Thursday, August 4	Monday, August 8
Chapter 18	Tuesday, August 9	Friday, August 12
Chapter 19.1-19.5	Thursday, August 11	Monday, August 15

Final Exam (30%):

There will be one in-class exam during the summer session on August 18 at 9:00 am. This is the only time that the final exam will be given. The final exam is a standardized exam produced by the American Chemical Society and is a comprehensive general chemistry (CHEM 101 and 102) exam. A Scantron form, periodic table, and scrap paper will be provided for you.

The exam will be closed book. No credit will be given for ambiguous answers. It is your responsibility to bring a pencil and *approved* calculator to the exam. No cell phones are permitted at your seat. If a cell phone is seen, the intent of

cheating will be assumed and at minimum you will receive a zero on the exam. If your cell phone rings in your backpack or jacket, you will lose points. Photo ID's will be checked when you turn in your exam.

A note about cell phones:

The use of cell phones (and other electronic devices not directly related to your learning) during class is a nuisance and a disruption; not only to yourself, but to those around you. Please **turn off** your cell phone **during lecture**. Use of cell phones (even for texting) during a lecture may result in your dismissal from class. If you are caught with a cell phone or other electronic device (except your scientific calculator) **during an exam**, the intent of cheating is assumed, and you will – at the very least – **receive a zero for that exam**. If there is an extenuating circumstance that requires you to have your cell phone on during lecture, speak to Dr. Carpenter prior to class.

Academic Dishonesty:

According to the University rules, intent of cheating does not have to be proven. Rather, the mere act of cheating is grounds for punishment. Acts of cheating include – but are not limited to – copying someone else's homework; working on a quiz with another student, using unapproved internet sources during a quiz, copying off of someone during an exam or quiz; using cheat sheets during an exam; using your cell phone during an exam or quiz; plagiarizing someone else's work and turning it in as your own; copying sentences directly out of the text or from the internet and turning it in as your own; and using an assignment from another class. I am very strict about cheating. Working together to study is fine – and encouraged. But I DO NOT tolerate any form of cheating. I will not hesitate to write you up, which could be cause for your dismissal from the University, particularly if you have had a prior offense. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory, or go to www.umbc.edu/provost/integrity.

A list of important dates for the semester can be found at: <http://www.umbc.edu/summer/importantdates.html>

Probable Schedule (subject to change):

Day	Date	Chapter covered
Tuesday	July 12	Chapter 12
Thursday	July 14	Chapter 13
Tuesday	July 19	Chapter 14 and 15.1-15.3
Thursday	July 21	Chapter 15.4 – 15.6
Tuesday	July 26	Chapter 16.1 – 16.7
Thursday	July 28	Chapter 16.8 – 16.12
Tuesday	August 2	Chapter 17.1 – 17.3
Thursday	August 4	Chapter 17.4 – 17.6
Tuesday	Aug 9	Chapter 18
Thursday	Aug 11	Chapter 19.1 – 19.5
Tuesday	Aug 16	Chapter 19.6 – 19.8 and Chapter 20

Thursday	Aug 18	ACS Final Exam
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