

Chemistry 1020 (General Chemistry II)

Spring 2022 Section 07

Professor Walter Smith

Office: DSC184 262-551-6245

Office Hours: Mon 10:30 to 11:30 AM and 4:05 to 5:05 PM, Thur 11:00 AM to 12:00 Noon and 4:05 PM to 5:05 PM, Fri 11:45 AM to 12:45 PM, and by appointment.

Email: wsmith@carthage.edu (Best way to get me.) Old geezer that I am I don't keep my cell phone in my pocket, so I respond by the next academic day)

Course Meetings: MWF 1:35-2:40 PM, DSC157.

Learning Outcomes: (specific outcomes are listed on each homework assignment)

Chemistry 1020 (and 1010) provide a full-year introduction to college-level chemistry. During the second semester course (Chemistry 1020, General Chemistry II), topics to be discussed include

1. Description of how molecular structure and shape affects intermolecular forces and properties of solutions encountered in everyday life
2. Description of concepts, and solving problems, in kinetics, equilibrium, acid/base chemistry, thermodynamics and electrochemistry, and applying these to health science, climate change, food and life
3. Practicing and improving problem-solving and critical thinking skills through examining and solving complex chemical systems

Other Goals:

1. To make you a scientifically literate citizen, voter, and (possibly) policy maker.
2. To develop in you, in the words of Carl Sagan (1934-1996), a functioning "automatic baloney detector"

Required Text:

Textbook: Flowers, Theopold, Langley, and Robinson "Chemistry" OpenStax, 2018.

Class Meetings and Attendance:

The schedule at the end of this document presents the order in which chapters will be covered. We will begin in Chapter 10 of the textbook and work through Chapter 17. Course outlines will be provided periodically to assist you in focusing your study. These outlines will include a statement of objectives, reading and problem assignments, and a projection of the material likely to be considered in each class.

The penalty for missing class is missing class! Students are strongly encouraged to attend all classes. You are responsible for information missed in class, including lecture notes, homework assignments, and handouts.

Homework Assignments:

Homework assignments are an important part of the course.

- Practice: one homework set will be included with each chapter outline. This assignment will be neither collected nor graded. In general the odd problems will be assigned, and answers will be found at the back of the text.

- Graded: a graded in-class assignment will be provided at the beginning of any class meeting in which there is neither an exam nor quiz given. Expressed differently, you may expect a graded assessment every class meeting. The in-class assessments are an open-note, but not open-text, exercise. In general the in-class assignments concentrate on concepts studied in the last one or two class meetings

Quizzes:

Quizzes will be given approximately once per week, usually on Friday. You will have the opportunity to drop **ONE** quiz during the semester. In general each quiz will concentrate on the topics covered in the past week or so.

Exams:

Three in-class "hour" examinations and a comprehensive final will be given. Each hour exam will cover the material in a specified group of chapters. The planned dates for exams are:

Exam 1: March 9th

Exam 2: April 13th

Exam 3: May 9th

Final Exam: May 16th

If you do better on the final exam than any one of the hour exams, I will throw out your lowest exam score and replace it with the (scaled) score you received on the final, provided you received a minimum score of 40 on the hour exam.

Grading of Written Responses:

Where appropriate, written responses will be graded not just for the final correct answer, but also for the method and completeness of the solution. No credit will be given for written responses in which appropriate work is not shown, even if the correct answer is given.

Help Outside of Class:

If you find you don't understand a major concept, it is your responsibility to see me during office hours. I enjoy my office hours; when in doubt, please come, even if only to say hello.

Laboratory:

Laboratory work is an important part of Chemistry 1020. I reserve the right to add one or more questions to any of the exams, based on your laboratory experiences.

Grades:

Your final grade in the course will be computed on the following basis.

Item	Percent	Additional Notes
Three Hour Exams	33%	3 @ 100 points. Replace lowest exam with the grade of your final exam (scaled to 100 points) if the final grade is higher, minimum replaced score must be 40.
Homework/Quizzes/In-class	25%	Drop lowest quiz Further breakdown: Quiz 17%, In-class 8%
Final Exam	22%	200 points
Laboratory	20%	

Grade Scale

100 %	≥	A+	≥	96.67%
96.66%	≥	A	≥	93.34%
93.33%	≥	A-	≥	90.00%
89.99%	≥	B+	≥	86.67%
86.66%	≥	B	≥	83.34%
83.33%	≥	B-	≥	80.00%
79.99%	≥	C+	≥	76.67%
76.66%	≥	C	≥	73.34%
73.33%	≥	C-	≥	70.00%
69.99%	≥	D+	≥	66.67%
66.66%	≥	D	≥	63.34%
63.33%	≥	D-	≥	60.00%
F/W	<			60.00% (Whether F or W depends on college policy)

Grade Elevation:

I will not elevate a grade no matter how close it is to the borderlines printed above. Please do not ask me to violate this policy.

Calculators:

“Traditional” hand-held calculators are permitted during exams, as long as they are not used in a programming mode. You need to bring your calculator to class. You do not need a sophisticated and expensive graphing calculator. I use a TI-30.

Absences

As noted above, except under rare circumstances, there will be a graded assessment every class meeting. In the event you are absent, in order to receive a makeup for the missed assessment you must provide notification, and documentation, to me, as noted under the categories below.

- Athletic event: email from the athletic department, received prior to the game
- Carthage trip/club: email from the faculty moderator, received prior to the event
- Bereavement: printed or electronic posting from funeral home, email notification sent to me as soon as practicable, with allowance for the need to leave campus suddenly
- Jury duty or court case: copy of summons, sent to me prior to the date
- Participation in military duty: copy of orders, sent to me prior to the date
- Transportation breakdown (commuters only): copy of repair bill, email notification to me as soon as practicable, with allowance for being stranded.
- Unsafe driving conditions (commuters only): email notification in time for me to note the current weather conditions
- Daycare issues (parents only!) email notification to me as soon as practicable, with suitable documentation to be discussed.
- Wedding participation: written notification registered with me no later than February 11th.
- Illness: email notification to me prior to the start of class (with allowance if you are incapacitated of course), with written documentation from a medical provider submitted to me upon your return to class. Please note: you cannot qualify for this category if you do not seek treatment!
- **Mandatory** COVID quarantine: email notification to me prior to the start of the first missed class (with allowance if you are incapacitated, of course), with written documentation from the administration. (*You may not “self-quarantine,”* please work with the administration if you feel the need to do this.)

The combined effect of the above policies is (1) makeups are not given for undocumented medical excuses, nor (2) for “forced” family events, and/or “forced” family vacations, which overlap with the academic schedule. In the event an exam is missed, a makeup must be scheduled to occur prior to the return of the exam to the class. The ability to make up an assessment for a verified absence expires 7 calendar days from your return to class.

Banked Excuses

I will allow three free, “banked” excuses for the course. They may be applied to the daily in-class exercises, or to the weekly quizzes, in any combination. No banked excuses may be applied to the three exams nor the final exam.

- No reason is needed, you merely need to claim your banked excuse.
- You must notify me by email, or note under my door or in my mailbox, within 24 hours of your event, or the banked excuse may not be applied to that event.
- Once claimed (in the 24 hour window) a banked excuse will not be “refunded.”
- You have up to seven calendar days to take the missed assessment, after which the assessment will be given a zero grade, and the banked excuse will not be “refunded.”
- I make no promise to track you down on banked excuse usage.
- Naturally, don’t use a banked excuse on an excusable absence! Use them wisely.

Fair warning: an accepted excused absence or banked excuse is merely a “ticket” for making up a missed assessment. As explained above, the “ticket” expires in 7 calendar days. I will never issue an exemption from your obligation to earn the points on a missed assessment! I will neither administrate, nor track you down, nor warn you that your ability to take the makeup is expiring.

Assessment Grade Limitations

No requests for rescoring of assessments will be allowed for any reason 7 calendar days after the assessment is returned to you.

Academic Integrity

All students are expected to conform and adhere to the College’s code of academic conduct, which can be found at: <https://www.carthage.edu/current-students/community-code/academic-concerns/academic-honesty-guidelines/>. Students are also expected to comply with any guidelines specific to remote learning and COVID-19. Academic misconduct will not be tolerated in this course. Misconduct includes attempting to copy, plagiarize, duplicate in any manner, or misrepresent work by others as your own, on course submissions. This includes material found on sites such as Chegg, or other homework cheat sites. Cheating will be handled by assigning a grade of zero on the affected work for the first offence, and failure of the course on subsequent offences.

Plagiarism

Students, particularly those new to college, may not understand the definition of plagiarism, particularly in the context of science lecture assignments. I highly encourage my students to discuss together course topics and problems outside of class. However, the words and calculations that appear on any submission to me for credit must be **ENTIRELY YOUR OWN**. Please understand the distinction I draw between preliminary, verbal collaboration on the topic, *versus* collaborating on the actual submission. It is never acceptable for any portion of your written submission to be identical to that of another student. You should never look directly at another student’s assignment, nor should you have a copy (or the original) of their assignment in your possession (from current or past students). This is an easy scenario to avoid: never share your

submission with another student! Please be aware, in the event of plagiarizing the work of another student, I normally penalize the originating and the copying student.

Equity and Inclusion

Everyone in this class belongs here. It is our intent that students from all backgrounds and perspectives be well served by this course and that students' needs be addressed both in and out of class. If you have a preferred pronoun, please let us know. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Students with Learning Differences

Carthage College and your other instructors in this course strive to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers due to your disability (including mental health, learning disorders and chronic medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, you also need to register with Diane Schowalter in Learning Accessibility Services (dschowalter1@carthage.edu).

Please note: for students with an approved accommodation for taking course assessments in the Learning Accessibility Services center, you must schedule this 48 hours prior to the event, in order to allow me enough time to provide a hard copy to the proctor.

Health and Counseling

The Health and Counseling Center (HCC) supports students by addressing physical, mental, and emotional well-being. All services are free and confidential and are available to currently enrolled, full-time undergraduate students. Health services include the assessment and treatment of minor illness and injury. Diagnostic testing, complimentary over-the-counter medications, and referrals to off-campus providers are all available. Our licensed counselors help students with challenges that can be resolved with short-term, solution-focused counseling. Some topics discussed during counseling include depression and anxiety, traumatic experiences, gender and sexuality, relationship concerns, stress management, and academic challenges. More details - including info about appointments - can be found at <https://www.carthage.edu/life-at-carthage/health-wellness-safety/health-counseling/>.

Disclaimer

The professor reserves the right to change the syllabus, when appropriate. The class will be notified of any changes.

My Illness

If I am ill, or if there is major inclement weather, I will communicate this to you by my Carthage email.

Tentative Schedule

A detailed schedule will appear in the course outlines. Below is a very general schedule.

Dates	Text Sections
Feb 2 - Feb 11	10.1 - 10.3, 10.5
Feb 14 - Feb 18	11.1 - 11.4
Feb 18 - Mar 7	12.1 - 12.7
Mar 7 - Mar 25	13.1 - 13.4
Wed Mar 9	Exam #1, Chapters 10, 11 & 12
<i>Mar 14 - Mar 18</i>	<i>Spring Break</i>
Mar 28 - Apr 25	14.1 - 14.7
Wed Apr 13	Exam #2, Chapters 13 & 14 (first part)
<i>Apr 15 - Apr 18</i>	<i>Easter Break</i>
Apr 27 - Apr 29	15.1, 15.3
Apr 29 - May 6	16.1 - 16.4
May 6 - 13	17.1 - 17.5
Mon May 7	Exam #3, Chapters 14 (second part), 15 & 16
Mon May 16	Comprehensive Final, 1:00-3:00 PM