

# CHM2046 GENERAL CHEMISTRY II UFO

SUMMER 2023

## INSTRUCTOR INFORMATION

Instructor	Email	Office Location & Hours
Dr. Stacey-Ann Benjamin	Email in Canvas <u>only</u>	Virtual Office Hours via Zoom TBA
Graduate Teaching Assistant	Email in Canvas <u>only</u>	Virtual Office Hours via Zoom TBA

## GENERAL INFORMATION

### CREDITS/PREREQUISITES

3 credits. Prerequisites: a C or higher in CHM 2045 and MAC1147 or the equivalent. Students who completed CHM 2045 or equivalent at another institution should consult a chemistry advisor before registering for this course.

### MEETING TIMES

This is a 100% online course. Virtual office hours (zoom conferences) will be scheduled at various times throughout the semester and can be made by appointment.

### COURSE DESCRIPTION/GOALS

CHM 2046 is the second semester of the CHM2045/CHM2045L and CHM2046/CHM2046L sequence. Kinetics review, Acids and bases, additional aspects of chemical equilibria, thermodynamics, electrochemistry, complex ions, nuclear chemistry, and introduction to organic chemistry.

As both a general education requirement and major's course CHM 2046 serves to teach the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

### FIRST DAYS

Log into Canvas and access the course. You should check frequently for new *Announcements* and/or emails containing important information and reminders. Click on the *Syllabus* tab. Click on *Modules* and read all the information under the *Orientation* section as many of your questions are answered there.

## GENERAL EDUCATION OBJECTIVES AND LEARNING OUTCOMES

Primary General Education Designation: Physical Sciences (P) ([area objectives available here](#))

A minimum grade of C is required for general education credit. Courses intended to satisfy the general education requirement cannot be taken S/U.

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

In General Chemistry II, these objectives will be met as detailed below.

At the end of this course, students will be expected to have achieved the following learning outcomes in content, communication, and critical thinking:

**Content:** *Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline.* Students will acquire a basic knowledge of a variety of chemistry concepts including the scientific method, stoichiometry, reaction types, thermodynamics, solutions, solids, gases, and chemical bonding. Achievement of this learning outcome will be assessed largely through assigned homework problems, and quizzes and exams.

**Communication:** *Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.* Students participate in class discussions throughout the semester to reflect on pertinent topics. Achievement of this learning outcome is realized through discussion sessions and/or office hours during which students formulate questions, construct arguments, and use logical reasoning to draw reasonable conclusions.

**Critical Thinking:** *Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.* Students apply mathematical knowledge and reasoning to solve chemical problems. This may entail use of algebra, basic geometry, and graphical analysis. Achievement of this learning outcome is largely assessed via worksheets, assigned homework problems, and quizzes and exams.

## COURSE LEARNING OUTCOMES

A complete list of student learning outcomes is posted in Canvas, organized by module/chapter.

## COURSE MATERIALS

### TEXTBOOK (ONLINE EBOOK WITH HW; REQUIRED IN FULL)

**Required:** ALEKS 360, which includes the eBook: M. Silberberg, "Chemistry: The Molecular nature of Matter and Change with Advanced Topics," 9<sup>th</sup> ed., McGraw-Hill, New York 2021.

This course is participating in UF All Access. Beginning the first day of the semester students can opt in to consent to have the purchase price charged to your student account. Alternatively, you can purchase an access code for the materials at the UF Bookstore. The opt-in code is the comprehensive package (ALEKS homework and the eBook of Silberberg).

To opt in, navigate to: <https://bsd.ufl.edu/allaccess>. Click the “Opt In” tab or view the “View Eligible UF All Access Classes” button. You will be prompted to log in using Gatorlink credentials. Follow the prompt to authorize charges to your student account. The access code will then be provided. Copy the access code to your clipboard. In the Canvas course, click on the ALEKS module, and provide the access code when prompted to do so. If you have any questions about the authorization process or refunds contact [Included@bsd.ufl.edu](mailto:Included@bsd.ufl.edu).

See the ALEKS page in Canvas in the Orientation Module for a walkthrough video for instructions on viewing the textbook and navigating within ALEKS.

A paperback version of the text is completely optional. The bookstore may stock paper versions of the text, or you can order one directly through the McGraw Hill website. A paper version is on reserve at the Marston Science Library for reference purposes.

All other assigned material will be available through Canvas.

## CALCULATORS

A nonprogrammable, scientific calculator is required for this course. Calculators are allowed during exams but may **NOT** be shared. Graphing and programmable calculators are NOT permitted during exams. Cell phones and other electronic devices may **NOT** be used during exams for calculations or any other reason.

## WEBCAM/MICROPHONE/SPEAKERS

You are required to have a functioning webcam, microphone, and speakers for proctored exams. See the technical requirements at [www.proctoru.com](http://www.proctoru.com). Verify that your operating system is compatible with ProctorU. (ProctorU currently does not support Chromebooks, for example.)

## COURSE TECHNOLOGY

The student may require Adobe Acrobat Reader, Adobe Flash Player, Microsoft Silverlight and other software. You may wish to use Microsoft Excel or Word for written assignments. Free tutorials on many software applications can be found at [Lynda.com](http://Lynda.com). All UF students are expected to have reliable access to a computer, especially for an online course. ProctorU has specific hardware/software requirements: <http://www.proctoru.com/tech.php>. Check the support page for ALEKS for technical support using their platform: <https://mhedu.force.com/aleks/s/>.

## COURSE COMMUNICATIONS

### GENERAL QUESTIONS

General course questions should be posted to the General Help Forum in Canvas. The instructor response time is 24-48 h during the work week (expect to wait until Monday for questions posted on a Friday). Chapter-specific questions should be posted to the appropriate Study Room; participation in the Study Rooms is for credit.

I encourage you to post questions related to ALEKS homework or end of chapter questions you're working on to the Study Rooms. The homework isn't meant to be a test, it's a learning tool. For the best response, take a screenshot of your question and/or the solution you propose. The more information you provide, the easier it is for your instructor/another student to help.

## PRIVATE OR GRADE-RELATED QUESTIONS

Direct these to your instructor via the mail function in Canvas. Do not email outside of Canvas to your instructor's external email address - we aren't permitted to discuss grade related questions outside of Canvas. You will be asked to resend the query through Canvas.

## COURSE POLICIES

### QUIZZES

Sectional quizzes are delivered in ALEKS. These quizzes are not proctored, but are timed, and are subject to the Honor Code. When you're ready to begin, simply click the link. You will have three attempts at each quiz, with the highest score counting for credit.

Graded quizzes can be submitted up to one week late for reduced credit (-50%, that is, - 5 points in the Canvas gradebook). Your Chapter 15 quiz cannot be completed after the due date. Note that if a quiz is submitted even 1 s after the due date/time, the late penalty will apply.

Practice quizzes are provided in Canvas, and do not count for credit.

### EXAMS

Three progress exams and one cumulative final exam are administered in Canvas. Due to the nature of this course's content, the topics tested on each progressive exam are cumulative so questions may include previously covered concepts which the student is expected to have already mastered. You must use a non-graphing non-programmable scientific calculator on exams (with log, ln, root, and exponent (scientific notation) functions). 5 points will be deducted from your score if you neglect to sign the Honor Pledge question at the end of every exam.

All exams are remotely proctored by ProctorU. In-person examinations are not an option for this 100% online course. It is your responsibility to register with ProctorU and reserve an exam time on the assigned dates during available times:

**Exam 1: TBA;**

**Exam 2: TBA;**

**Exam 3: TBA;**

**Final Exam: TBA**

To do so click on the ProctorU tab in Canvas. Reservations (exam start times) are available for each exam beginning at 6 pm, through 8 pm only.

If you fail to make a reservation sufficiently in advance (>72 h) a late fee may be assessed by ProctorU, and you may have difficulty obtaining a desirable time. Failure to reserve a time slot in advance is not an accepted excuse for a late exam.

If you encounter technical difficulties with ProctorU, contact ProctorU directly. If you have trouble navigating their reservation system, call them for assistance.

## EXAM POLICIES

If you suspect an error in the grading of an exam, it is your responsibility to notify the lecturer in via email within one week of the grade being posted on Canvas for consideration. No grade change considerations or changes will be made after this one week period.

## PROGRESS EXAM “AVERAGE/REPLACE” POLICY

This applies to all students. No progress exam score will be dropped for any reason. To alleviate the stress of potential issues that do not fall under officially sanctioned absences, we have incorporated an “average/replace” policy: the lowest of the three progress exams will be replaced by the average of the three progress exams. This policy helps to minimize the impact of a single poor performance (it will not disappear, but will be minimized). For example, if a student scores the following on their three progress exams: 0%, 65%, 80%, the 0% would be replaced with the average of 0, 65 and 80, which is 48%. That is a much better score than a 0.

## ASSIGNMENT POLICY

### ALEKS MODULES (ASSIGNMENTS)

Access the electronic homework and eBook directly from within Canvas by navigating to Modules> ALEKS Science. A significant portion of your grade stems from on-time completion of equally weighted *ALEKS Modules*. Whatever percentage of the topics you complete on time within an objective will count for credit - i.e. if you complete 7 of 10 topics within a particular module assignment you will earn 70% credit for that objective, or 7/10 points for that objective. The average completion time is approximately 3 topics/h, system-wide in the ALEKS system. Plan your time accordingly.

ALEKS is set up in a specific manner - you will need to complete some topics in order to proceed to the next topic, as topics and concepts in chemistry build on one another. There isn't a way to disable this setting. You are encouraged to work on assignments early and frequently for short periods of time, no more than 2 or 3 h at a sitting.

The one lowest *ALEKS Modules* grade is dropped from your overall course grade.

ALEKS modules cannot be completed late for credit.

### ALEKS PIE

A significant portion of your grade stems from completion of your *ALEKS Pie* by the last day of classes. The work you do on *ALEKS Modules* counts towards this goal. You can catch up or work ahead on your pie progress during *Open Pie* periods. Whenever you complete an *ALEKS Module* before its due date/time you also will enter *Open Pie* mode. Pie progress is calculated as  $(\# \text{ topics completed} / \text{total } \# \text{ topics}) * 100\%$ . The pie progress % you view in ALEKS is a good estimate of this, but the precise value according to the calculation above is used in your grade calculation in Canvas.

### WORKSHEETS

A portion of your grade stems from completion and submission of worksheets. You must *show your work* to earn full credit. Your instructor will review these and make comments on your work. Worksheets must be

submitted to the assignment prior to the deadline to be considered for credit. For technical help with assignment submissions contact the UF Help Desk.

Worksheets can be completed late, with a late penalty of 20% per day submitted late. Note that if a worksheet is submitted even 1 s after the due date/time, the late penalty will apply.

The one lowest Worksheet grade is dropped from your overall course grade.

## NOTES AND STUDY ROOMS

Students are required to take notes while watching the lesson videos in each module. Note-taking helps with exam preparation and is recommended as a best study practice. You will upload your notes to Canvas for credit.

The student is also expected to contribute to threaded discussions in topic-specific Study Rooms according to the advertised timeline in Canvas.

- You will post at least one question about a concept or problem from the worksheet, homework or your own study questions.
- You will answer at least one question posed by a classmate in the discussion thread. Your response should be thoughtful and provide evidence to support your answer, for example, in the form of a complete worked solution.

Initial discussion questions cannot be submitted for credit after a chapter's study room deadline. There are no exceptions. Post early and check your post/response. **Your initial post must be made at least one day before the study room deadline to allow other students enough time to view and respond to your question.** A discussion response can be completed late, with a late penalty of 25% per day submitted late. Note that if a participation (original post and/or follow up posts) is submitted even 1 s after the due date/time, the late penalty will apply. Emailed submissions are not considered for credit.

The one lowest Study Room discussion grade is dropped from your overall course grade.

For technical help with assignment submissions contact the UF Help Desk.

## CHECK-IN WITH INSTRUCTOR

The student is expected to check in with the instructor via zoom office hours at least once every three weeks. These check-ins are intended to provide communication with your instructor to ensure that you are keeping up with the course material, to assist with solving practice questions, to address course related concerns, and/or to discuss best study practices. You will log in for check-in with your instructor via zoom conference and full credit will be awarded if a minimum of four (4) of those meetings take place. Zoom sessions will not be recorded by the instructor/TA and may not be recorded by students. As in all courses, unauthorized recording and unauthorized sharing of recorded material is prohibited.

## EXTENSIONS

Note that all due dates for assignments are clearly posted in the course assignments of the Canvas page and reflect the most up-to-date information. The deadline for assignments is 11:59 p.m. on the day stated on

the lecture schedule. All assignments/quizzes must be completed by the stated due date and time for credit. Extensions for assignments (exams are covered under the General Chemistry Exam Absence Policy) can be requested due to illness or emergent situations.

You will be asked to have your situation verified by the Dean of Students Office before such an extension is considered. Information on requesting an excuse note can be found here:

<https://care.dso.ufl.edu/instructor-notifications/>

A Dean of Students note verifying documentation of illness or a personal matter must be provided for at least 50% of the days allocated for completion of the assignment (for example, if the duration of a Module is six days, documentation of illness or a personal matter should be provided for at least three of those days) for accommodations to be considered. Extensions will NOT be given because of technical or personal issues that occur within 24 hours of the assignment deadline.

Exam dates are firm, and all assignments must be completed by the last day of term.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Exam absences will be handled in accordance with official UF academic regulations. For more information, see <https://catalog.ufl.edu/UGRD/academic-regulations/> . See below for further clarification for two different types of situations.

(1) Conflicts with other events: acceptable reasons may include religious holidays, military obligations, special curricular requirements (e.g., attending professional conferences), or participation in official UF-sanctioned activities such as athletic competitions, etc. For more information on such absences see the official UF Policy at <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext> ). If you must be absent for an exam due to a documented and approved conflict known in advance, you must e-mail your instructor (within Canvas) the documentation at least one week prior to the scheduled exam and an early conflict exam will be scheduled for you.

(2) Missing an exam due to an emergency or sudden illness: If you are absent for an exam due to an unpredicted documented medical reason or family emergency, you must contact the instructor as soon as possible, and you may be asked to have your excuse verified by the Dean of Students Office (DSO). Your instructor will follow UF academic regulations in evaluating the notification and/or documentation received from you or from the DSO on your behalf. Once your instructor is satisfied with the validity of your exam absence a make-up exam will be scheduled after a reasonable amount of time, i.e., before the end of the semester. If your documentation is deemed insufficient to excuse your absence you will receive a zero on the missed exam.

## GRADING

### GRADE POLICY

Should a student wish to dispute any grade received in this class, the dispute must be in writing and be submitted to the instructor via Canvas mail within 96 h of receiving the grade, and within 24 h for the Final Exam.

There is no extra credit available for this course beyond the generous dropped assignment policy. Grades are not rounded at the end of term. Exam grades or course grades are not curved. Take care to complete each assignment prior to its advertised due date and to submit assignments as directed. Contact the UF Help Desk for help with Canvas.

Assignments weights are as follows:

Assignment Group	Weight %
ALEKS Modules	8%
ALEKS Pie Progress	7%
Progress Exams (3 @ 15% each)	45%
Cumulative Final Exam	20%
Worksheets	5%
Quizzes	8%
Study Rooms	3%
Notes	2%
Check-in with instructor	2%

Grade scale (note: there is no rounding to your score in Canvas):

Letter	A	A-	B+	B	B-	C+	C	D+	D	D-	E
Cutoff	90.0	86.0	83.0	80.0	77.0	73.0	69.0	66.0	63.0	60.0	<60.0

## UNIVERSITY POLICIES

### AUDIO/VIDEO PRESENCE POLICY

Zoom Check-ins with the instructor and/or TA office hours sessions are not generally recorded. Should it be necessary to record a session, an announcement will be made in advance. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during sessions and participate verbally are agreeing to have their voices recorded.

If you are not willing to consent to have your voice recorded, you will need to keep your mute button activated and communicate exclusively using the ‘chat’ feature, which allows students to type questions and comments live. The chat will not be recorded or shared.

Full audio/video presence is required for proctored tests administered by Proctor U.



## UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting [disability.ufl.edu/students/get-started](https://disability.ufl.edu/students/get-started). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

The student is responsible for scheduling the exam dates with the DRC. Students with disabilities should follow this procedure as early as possible. The DRC has 4 business day policy to submit Accommodated Testing Requests (ATRs). You must submit this documentation prior to submitting assignments or taking quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

## UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida. The following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. Any student found cheating during an exam will receive a score of zero for the exam. For more information regarding the Student Honor Code, please see:

<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

## U MATTER, WE CARE

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing Staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

## INCLUSIVE LEARNING ENVIRONMENT

We embrace the University of Florida’s Non-Discrimination Policy, which reads, “The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinion or

affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." We are committed to fostering an open and inclusive classroom and laboratory environment in our College, where every student, guest instructor and contributor feels valued. Multicultural and Diversity Affairs (MCDA) is a department within the Division of Student Affairs that celebrates and empowers diverse communities and advocates for an inclusive campus for all students across identities. If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office on Multicultural & Diversity Affairs Website: <https://multicultural.ufl.edu/>

## COUNSELING AND WELLNESS CENTER

Visit <https://counseling.ufl.edu/> or call 352-392-1575 for information on crisis services as well as non-crisis services.

## FEEDBACK

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## NETIQUETTE

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. <http://biostat.ufl.edu/resources/e-learning-resources/e-learning-basics/etiquette-online/>

## GETTING HELP

For issues with or technical difficulties with Canvas, contact the UF Help Desk: <https://lss.at.ufl.edu/help.shtml>; (352)-392-HELP. Other resources are available at <http://www.distance.ufl.edu/getting-help> for Counseling and Wellness resources, disability resources, resources for handling student concerns and complaints, and library desk support.

## TENTATIVE WEEKLY SCHEDULE

Note: this is designed to replicate F2F class

Monday	Tuesday	Wednesday	Thursday	Friday
May 15 Orientation Module	16 Module 1 Lesson 16.1 Orientation Quiz	17 Lesson 16.2	18 Module 1/Ch. 16 Study Room & Worksheet	19 Ch. 16 Quiz ALEKS HW Ch. 16
22 Module 2 Lesson 17.1	23 Lesson 17.1 contd	24 Lesson 17.1 contd	25 Module 2/Ch. 17 Study Room & WS	26 Ch. 17 Quiz ALEKS HW Ch. 17
29 Holiday	30 Module 3 Lesson 18.1	31 Lesson 18.2	June 1 Lesson 18.2 contd.	2 Module 3/Ch. 18 SR & WS
5 Ch. 18 Quiz ALEKS HW Ch. 18	6	7 Module 4 Lesson 19.1	8 Lesson 19.1 contd.	9 Lesson 19.1 contd.
12 Lesson 19.1 contd.	13 Mod 4/Ch. 19 SR & WS	14 Ch. 19 Quiz ALEKS HW Ch. 19	15 Module 5 Lesson 23.1	16 Lesson 23.1 contd
19 Holiday	20 Lesson 23.1 contd	21 Mod 5 Ch. 23 SR/WS	22 Ch. 23 Quiz ALEKS HW Ch. 23	23
26 Summer Break	27 Summer Break	28 Summer Break	29 Summer Break	30 Summer Break

July 3 Module 6 Lesson 20.1	4 Holiday	5 Lesson 20.1 contd.	6 Lesson 20.1 contd.	7 Lesson 20.1 contd.
10 Lesson 20.1 contd.	11 Mod 6 Ch. 20 SR/WS	12 Ch. 20 Quiz ALEKS HW Ch. 20	13 Module 7 Lesson 21.1	14 Lesson 21.1 contd
17 Lesson 21.1 contd	18 Lesson 21.2	19 Lesson 21.2 cont'd	20 Lesson 21.2 cont'd	21 Mod 7 Ch. 21 SR/WS
24 Ch. 21 Quiz ALEKS HW Ch. 21	25	26 Module 8 Lesson 24.1	27 Lesson 24.1 contd.	28 Lesson 24.1 contd.
31 Mod 8 Ch. 24 SR & WS	August 1 Ch. 24 Quiz ALEKS HW Ch. 24	2 Module 9 Lesson 15.1	3 Lesson 15.1 contd.	4 Lesson 15.1 contd. *Withdrawal deadline*
7 Mod 9 Ch. 15 SR & WS	8 Ch. 15 Quiz ALEKS HW for Ch. 15	9 Review for Final Exam & Catch up on ALEKS Pie Progress	10 Cumulative Final Exam ALEKS Pie is due	11

## DISCLAIMER

This syllabus represents current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.