CHM1025 INTRODUCTORY CHEMISTRY

SUMMER B 2024; CLASS NUMBER 10488

INSTRUCTOR INFORMATION

Instructor	Email/Office/Phone	Preferred Contact
Summer Brown	Email in Canvas only	Email preferred
sbrown5@chem.ufl.edu	352-392-0558 (leave message)	Office hours: SFH 105, M/F 4:45-5:30p
	LEI 428	

TEACHING ASSISTANT/UNDERGRADUATE TAS

Graduate TAs: Nariman Neekzad (Nariman.neekzad@chem.ufl.edu). Contact via Canvas email; Office Hours: SFH 105, Tu 4:45-5:30p; W 2:30-3:15p

Academic Resources offers free in person and virtual tutoring assistance. See their website for details. They also have test reviews, with materials for download, posted on their website for previous semesters. This is a valuable resource (for both CHM1025 and gen chem, once you move on to gen chem/orgo, as well as math).

COURSE DELIVERY/MEETING TIMES

The course meets MTWF per 6 in FLI 50.

You can typically expect to receive replies to emails within 24 h during the workweek, or by the next business day for questions posted late on a Thursday, or on a Friday.

COURSE FEES

Additional Course Fees: $0.87

A NOTE ABOUT THE CONDENSED SUMMER B TERM

This is the same course students complete over 16 weeks each fall and spring term, condensed into just under a 6 week period. You can expect the pace and workload of the course to be correspondingly intense. The course material and tasks are identical to those completed over 16 weeks.

GENERAL INFORMATION

COREQUISITES/PREREQUISITES

MAC1147 or the equivalent is a published co-requisite. Refer to the Course Catalog for math requirements to continue in general chemistry sequence. The math requirement of a C or higher in MAC1147 or the

equivalent or higher is strictly enforced for CHM2045. A C or higher in CHM1025 is also required for progression to CHM2045, no matter the ALEKS math placement score.

COURSE DESCRIPTION/GOALS

CHM 1025, a two-credit course, is offered for students who wish to strengthen their understanding of basic concepts of atomic structure and stoichiometry before beginning the general chemistry sequence (CHM 2045/2045L, CHM 2046/2046L). This introductory readiness course in general chemistry is for those with weak yet satisfactory backgrounds in high school chemistry and algebra. (P)

By the end of this course, students will be able to interpret tables of data and graphs of various forms, and students will be competent in using mathematics to solve problems in chemistry. Students will be able to understand concepts related to atomic and molecular structure, and relationships between heat and energy. Students will be able to describe the basic model of the atom, and explain theories of chemical equations, and to use the concept of the mole in quantitative calculations. Students will be able to apply these principles to solve problems in a variety of contexts.

Specifically, students will be able to:

1. Classify and describe the properties, types, and changes of matter.
2. Analyze physical processes in chemical sciences and identify the principles of those processes to make predictions of chemical behavior.
3. Solve chemical problems, involving unit conversions, reaction stoichiometry, solutions, gas laws, and thermochemistry.
4. Describe the principles of quantum theory and use them to evaluate atomic and molecular structure, periodic trends, and bonding theories.
5. Clearly communicate in writing information derived from course related readings about the major concepts and themes in the chemical sciences

FIRST DAYS/HOW OFTEN SHOULD I CHECK ANNOUNCEMENTS IN CANVAS

Log into Canvas and access the course. You should check daily for new *Announcements* and/or emails containing important information and reminders. Important announcements may also be made verbally in class – you are responsible for the content of lecture whether or not you are in attendance.

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.

The course objectives align with the UF General Education student learning outcomes and physical science area learning outcomes:

General Education SLO	Physical Science SLO	Course Objective Alignment	Assessment
Content	Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern biological and physical systems.	Objectives 1-5	All assessments and student practice assignments offer opportunities for students to demonstrate content knowledge.
Critical Thinking	Formulate empirically-testable hypotheses derived from the study of physical processes or living things; apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.	Objectives 1-5	All assessments and student practice assignments offer opportunities for students to demonstrate content knowledge.
Communication	Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.	Objective 5	Communication assignments.

COURSE LEARNING OUTCOMES

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

REQUIRED & RECOMMENDED COURSE MATERIALS

TEXTBOOK (ONLINE EBOOK WITH HOMEWORK; REQUIRED IN FULL)

A significant portion of your grade stems from electronic homework (ALEKS) associated with an ebook (*Introduction to Chemistry*, Bauer, Birk and Marks, 5th ed., McGraw-Hill). ALEKS also has its own "textbook," the ALEKSPEDIA; the textbook for this course, however, is the Bauer text.

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 Bauer, Birk & Marks).

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 ALEKS from the navigation bar then provide the access code

when prompted to do so. If you have any questions about the authorization process or refunds contact allaccess@bsd.ufl.edu.

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 ALEKS. A paper version is on reserve at the Marston Science Library for reference purposes.

See the ALEKS page in Canvas (Modules>ALEKS, under the *Settling In* section) for a walkthrough video for instructions on viewing the textbook and general navigation tips within ALEKS.

COURSE TECHNOLOGY

All UF students are expected to have reliable access to a computer. Check the support page for ALEKS for technical support using their platform: https://mhedu.force.com/aleks/s/.

COURSE COMMUNICATIONS

PRIVATE OR GRADE-RELATED QUESTIONS

Direct these to your instructor via the mail function in Canvas or see your instructor in office hours. Do not email outside of Canvas to your instructor's external email address – we are not permitted to discuss grade related questions outside of Canvas. You will be asked to resend the query through Canvas.

COURSE POLICIES

CHAPTER QUIZZES

Sectional/chapter quizzes are delivered in Canvas quizzes. Additional practice quizzes (not for credit) are available through the ALEKS platform. 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 two attempts at each quiz (2 attempts at each Canvas quiz, and two attempts at each ALEKS quiz).

Canvas quizzes can be completed late, with a late penalty of 20% per day submitted late. ALEKS quizzes can also be done up to 5 days late. The last possible date any quiz can be completed for credit is the last day of term, 11:59 pm Aug. 9th.

The two lowest quiz scores are dropped from your final course grade.

EXAMS

Two progress exams and one cumulative final exam are administered during class time on July 12, July 26 and Aug. 7. The exams are multiple choice. Scratch paper and scantrons are provided. You will require an approved calculator (non programmable), UFID or other government issued ID, and pencils/erasers. Each is necessarily cumulative in nature.

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 two progress exams (note, this does not include the cumulative

final exam) will be replaced by the average of the two 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 progress exams: 0%, 90%, the 0% would be replaced with the average which is 45%. That is a much better score than a 0.

QUIZ/EXAM QUESTION DISPUTES

If you believe you have found an error on a quiz/exam or would like to dispute a question, the deadline for doing so is within 72 h of a quiz/exam or 24 h after the final exam. Email your instructor through Canvas email.

ASSIGNMENT POLICY

ALEKS MODULES

Access the electronic homework and eBook directly from within Canvas by selecting ALEKS from the navigation bar. 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 objective assignment you will earn 70% creditfor 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.

Due to the way *ALEKS Modules* are set up, with students working on prescribed topics during set times, it can be problematic for the student to extend due dates. If you have a legitimate reason for an extension on an ALEKS assignment (see the University Attendance Policy: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/), reach out to your instructor (Mrs. Veige) via email through Canvas. Up to two missed objectives for documented and approved reasons (i.e. documented illness, etc.) will be handled by marking them with "EX" in the Canvas gradebook. This will weight your other graded objective scores more heavily in your final course grade. If more than two are missed, due date extensions will be made for the 3rd and subsequent missed assignments (this should be rare). Even though the individual assignment grades may be excused, you will still need to complete the topics contained in the assignments to earn full credit on your *ALEKS Pie*. You can do this whenever you are in Open Pie mode. Please refer to the detailed study schedule at the end of this document for scheduled Open Pie periods. Students are also in Open Pie whenever they complete an ALEKS objective prior to the due date.

The two lowest *ALEKS Modules* grades are dropped from your overall course grade.

ALEKS PIE

A significant portion of your grade stems from completion of your *ALEKS Pie* by the last day of classes (11:59 pm Aug. 9th). 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. There are regularly scheduled *Open Pie* times for all students in the course. Whenever you complete an *ALEKS Objective* before its due date/time you also will enter *Open Pie* mode. Pie progress is calculated as (# topics completed/total # 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.

Additional information regarding ALEKS is provided in the *Settling In* section in Canvas. Contact ALEKS support for tech help with ALEKS or for grading disputes. Their support staff is very responsive.

You can work on your *ALEKS Pie* progress for credit until 11:59 pm the last day of term, Aug. 9th.

ALEKS HOMEWORK SETS

There are four ALEKS Homework Sets (these are unique from the Objectives and do not count towards your Pie Progress) based on the most math-heavy portions of the course to give you additional required practice. Each set is due prior to the relevant exam. Questions within each set can be done as many times as needed until the question is marked correct. Homework sets can be turned in up to a week late for reduced credit (-25%). Homework Set #4 can only be turned in late up to the last day of term, Aug. 9th. The one lowest Homework Set grade is dropped from your overall course grade.

CHEM COMMUNICATION

Students will submit infographics, slide presentations or discussions as directed in Canvas assignments, twice at scheduled times during the term. Students will explain chemistry topics and relevance to the real world in their own words.

ATTENDANCE, EXTENSION REQUESTS

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: this should be rare, as CHM1025 proctored exams are scheduled during your scheduled class time. You should plan accordingly. Such 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** (i.e. before the regular exam date) 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 within 72 h of receiving the grade, or within 24 h of the Final Exam.

There is no extra credit available for this course. 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 as needed with Canvas.

Assignments weights are as follows (see the syllabus text for details of dropped assignments):

Assignment Group	Weight %
ALEKS Modules	8%
iClicker	5%
ALEKS Pie Progress	5%
ALEKS Homework Sets (#1-4)	2%
Quizzes (in Canvas)	8%
Progress Exams (2 equally weighted; consider average/replace policy)	45%
Cumulative Final Exam	25%
Chem Communication	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

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. 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.

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 SCCR sanctions given will also result in a score of zero on the assignment in question. 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: http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php."

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 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.

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. A detailed guide is posted under the *Settling In* section in Canvas.

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.

DISCLAIMER

This syllabus represents my 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.

STUDY SCHEDULE

This is a tentative schedule.

ALEKS Open Pie: all students are in Open Pie during the weekends, and can work on missed topics or work ahead on ALEKS topics

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
July 1 (Drop/Add) 1.1-1.2 Opt in and access ALEKS; take Initial Knowledge Check	2 (Drop/Add) Ch. 1 cont'd	3 End Ch. 1; math toolboxes 1.1-1.3 ALEKS Prerequisite Review due	4	5 No class
8 Ch. 2.1-2.4 ALEKS Ch. 1 due Quiz 1 Ch. 1 due	9 2.5	10 3.1-3.4 (end of Exam 1 material)	11 ALEKS Ch. 2 due ALEKS HW Set 1 due (Ch. 1)	12 Exam 1 in class
15 Ch. 3.5-3.7 ALEKS Ch. 3 due	16 Ch. 4.1-4.2 Quiz 2 Ch. 2&3 due	17 Ch. 4.3-4.4; Ch. 5.1-5.2	18 ALEKS Ch. 4 due Quiz 3 Ch. 4 due	19 Ch. 5.3-5.5 ALEKS HW set 2 (Ch. 4) due Chem Comm 1 Due
22 Ch. 6.1-6.2 ALEKS Ch. 5 due	23 Ch. 6.3-6.5 Quiz 4 Ch. 5 due	24 Ch. 6.6-6.7 (end of Exam 2 material)	25 ALEKS Ch. 6 due Quiz 5 Ch. 6 due	26 Exam 2 in class

			ALEKS HW set 3 (Ch. 6) due	
29 Ch. 7.5-7.6	30 Ch. 7.7 ALEKS Ch. 7 due	31 Ch. 8.1-8.2 Quiz 6 Ch. 7 due	Aug 1	2 End Ch. 8 ALEKS Ch. 8 due
5 Ch. 11.1-11.5 Quiz 7 Ch. 8 due	6 Ch. 13.1-13.2; 14.1-14.2 ALEKS Ch. 11 due ALEKS HW Set 4 (Ch. 11) due	7 Final Exam (in class) Chem Comm 2 due	8 ALEKS Ch. 13 & 14 due Quiz 8: Ch. 11, 13, 14	9 Last day to work on ALEKS Pie Progress Last day to submit any work for credit