CHM2046 GENERAL CHEMISTRY II UFO

SPRING 2025

CLASS NUMBER: 10745

CONTENTS
Instructor Information
GENERAL INFORMATION
Credits/prerequisites
Course delivery/Meeting Times
Course description/goals3
First Days4
General Education Objectives and Learning Outcomes4
Primary General Education Designation: Physical Sciences (P) (area objectives available here)
4
Course learning outcomes5
Course Materials
Textbook (online ebook with hw; required in full)5
Calculators
webcam/microphone/speakers6
Course Technology6
Course Communications
General Questions
Private or Grade-Related Questions6
Course Policies
Quizzes6
Exams
Exam Policies
Progress Exam "Average/Replace" Policy7
Assignment Policy7
Aleks Modules (Assignments)7
ALEKS Pie8
Perusall Discussions and Worksheets8

Perusall Discussions
Worksheets
Notes9
Check-in with instructor9
Extensions
Grading
Grade policy
University Policies
AUDIO/VIDEO PRESENCE POLICY 11
University Policy on Accommodating Students with Disabilities
University Policy on Academic Misconduct 12
U Matter, We Care 12
Inclusive Learning Environment
Counseling and Wellness Center
Feedback
Netiquette
Getting Help
course Topics
Tentative Weekly Schedule
Coursework Estimated Times
Sample Grading Rubric 17
Disclaimer

INSTRUCTOR INFORMATION		
Instructor	Email	Office Location & Hours
Dr. Stacey-Ann Benjamin	Email in Canvas <u>only</u>	Virtual Office Hours via Zoom Tuesdays Per 3 - 4 (9:35 am - 11:30 am) Thursdays 7:00 pm - 8:00 pm
Graduate Teaching Assistant TBA	Email in Canvas <u>only</u>	Virtual Office Hours via Zoom TBA
Undergraduate Teaching Assistant TBA	s	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.

COURSE DELIVERY/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

The second semester of the CHM 2045/CHM 2045L and CHM 2046/CHM 2046L sequence. Kinetics review, acids and bases, additional aspects of chemical equilibria, thermodynamics, electrochemistry, complex ions and descriptive chemistry. (P).

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.

Specifically, students will be able to:

1. Clearly communicate in writing information derived from course-related readings/lectures about the major concepts and themes in the chemical sciences.

2. Apply knowledge of the fundamental principles of chemical, acid/base and aqueous equilibria to perform related calculations and make predictions of system behavior.

3. Describe and apply the fundamental principles of thermodynamics and electrochemical systems.

4. Describe the properties of complex ions and coordination compounds. Identify the importance of elements in nature and industry.

5. Analyze chemical principles in advanced applications.

FIRST DAYS

Log into Canvas and access the course. You should <u>check frequently</u> 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.

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

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	Objectives 1-5	Independent Practice: • Graded Homework • Graded Worksheets Formative: • Quizzes • Practice Exams

	scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.		Summative: 4 Exams
Communication	Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.	Objectives 1, 3 - 5	 Meeting with TA/ discussions

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," 10th ed., McGraw-Hill, New York 2024.

This course is participating in UF All Access. At the beginning of 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: <u>https://bsd.ufl.edu/allaccess.</u> 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 from the navigation bar, 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.

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 <u>NOT</u> be shared. Graphing and programmable calculators are NOT permitted during exams. Cell

phones and other electronic devices may <u>NOT</u> 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 <u>www.proctoru.com</u>. 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. 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

Chapter quizzes are delivered in ALEKS. These quizzes are not proctored, but are timed, and are subject to the Honor Code. It is recommended that you watch the corresponding lecture videos and complete all your assignments prior to attempting each quiz. When you're ready to begin, simply click 'Assignments' from the dropdown menu in ALEKS and select your chapter quiz. Quizzes are timed at 90 minutes each with two attempts at each quiz, and the higher score counting for credit.

Graded quizzes can be submitted up to five days late for reduced credit, 20% penalty per day submitted late. The last possible date any quiz can be completed for credit is the last day of term, 11:59 pm Dec. 7th. Note that if a quiz is submitted even 1 s after the due date/time, the late penalty will apply.

EXAMS

Three 2-hr progress exams and one 2-hr <u>cumulative</u> final exam are administered in Canvas. Due to the nature of this course's content, the topics assessed 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: April 28th

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. A significant penalty is assessed for missing an 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 <u>one week</u> of the grade being posted on Canvas for consideration. <u>No grade change considerations or changes will be made after this one week period</u>.

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 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 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 <u>one lowest</u> 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 (# 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.

PERUSALL DISCUSSIONS AND WORKSHEETS

PERUSALL DISCUSSIONS

A portion of your grade stems from completing Perusall discussion assignments. Perusall is an e-reader and platform used to help students collaboratively engage with course material as you prepare for assignments and exams. You are expected to contribute to problem-solving discussions on questions provided from each chapter according to the advertised timeline in Canvas. You will be graded based on the quality, frequency, and value of your submissions, annotations, and responses to others' annotations/questions.

To earn a grade for each chapter, you must:

- 1. Pick two questions from the provided list in Perusall and upload a .doc or PDF file showing how to solve the questions, including calculations and/or a written explanation. You are not permitted to pick a question that has already been chosen. If all the questions on the list have already been explained, you may choose questions from the corresponding chapter worksheet in Canvas.
- 2. Look at the answers submitted by at least **two** other students and provide meaningful comments or ask for clarification/additional explanation.
- 3. Provide a score for the submissions you commented on or other submissions of your choice. You cannot score your own work.
- 4. Reply to the peer comments you receive on your submission.

WORKSHEETS

There will be additional worksheet questions from each Chapter in Canvas for more practice. Worksheets are graded based on completion and not accuracy. You must *show your work* to earn full credit. You will upload your notes to Canvas for 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 <u>one lowest</u> Worksheet grade is dropped from your overall course grade.

NOTES

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

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

Note that if a participation (original entry and/or responses) is submitted even 1 s after the due date/time, no credit will be applied.

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: <u>https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/</u>

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

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.

Please refer to the catalog for UF grading policies for assigning grade points:

<u>https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</u>. A minimum grade of C is required for general education credit. Courses intended to satisfy the general education requirement cannot be taken S/U.

Assignments weights are as follows:

Assignment Group	Weight %
ALEKS Modules	6%
ALEKS Pie Progress	6%

Progress Exams (3 @ 16% each)	48%
Cumulative Final Exam	22%
Worksheets	2%
Quizzes	7%
Perusall Discussions	6%
Notes	2%
Check-in with instructor	1%

Grade scale (note: there is <u>no rounding</u> to your score in Canvas):

Letter	Α	A-	B+	В	B-	C+	С	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

GRADE DISPUTES

Should a student wish to dispute any score received in this class, the dispute must be in writing and be submitted to the instructor via Canvas mail within 96 h of the score being posted in Canvas, and within 24 h for the Final Exam. After one week has passed from when the grade was posted and the student made aware of the posting of the grade(s) to Canvas, the instructor considers those grades final.

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 <u>disability.ufl.edu/students/get-started</u>. 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 <u>umatter@ufl.edu</u> 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: <u>https://multicultural.ufl.edu/</u>

COUNSELING AND WELLNESS CENTER

Visit <u>https://counseling.ufl.edu/</u> 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. <u>http://biostat.ufl.edu/resources/e-learning-resources/e-learning-basics/etiquette-online/</u>

GETTING HELP

For issues with or technical difficulties with Canvas, contact the UF Help Desk: <u>https://it.ufl.edu/helpdesk/;</u> (352)-392-HELP.

COURSE TOPICS

The following list details the order of topics that will be covered in this course:

Chapter 17: Equilibrium: The Extent of Chemical Reactions

Chapter 18: Acid-Base Equilibria

Chapter 19: Ionic Equilibria in Aqueous Systems

Chapter 20: Thermodynamics: Entropy, Free Energy, and Reaction Direction

Chapter 21: Electrochemistry: Chemical Change and Electrical Work

Chapter 14: Periodic Patterns in the Main-Group Elements

Chapter 23: Transition Elements and their Coordination Compounds

Chapter 24: Nuclear Reactions and their Applications

TENTATIVE WEEKLY SCHEDULE

The following schedule is tentative, but exam dates will not change. Note: this is designed to replicate F2F class. Reading times are approximately 2 min/page.

Monday	Tuesday	Wednesday	Thursday	Friday
January 13	14	15	16	17
Orientation Module	Module 1	Lesson 16.2	Lesson 16.3	Lesson 16.3 contd.
	Lesson 16.1	Read Ch. 16.4	Read Ch. 16.5	Read Ch. 16.6 -
	Read Ch. 16.1 - 16.3	p 703 - 710	p 711 - 718	16.7 р 718 - 729
	p 687 - 702			Learning with Perusall Assignment
20	21	22	23	24
Holiday - Dr Martin	ALEKS HW for Ch.	Module 1	Lesson 17.1 contd.	Lesson 17.1 contd.
Luther King Jr. Day	16	Lesson 17.1	Read Ch. 17.3 -	Read Ch. 17.5
	Module 1/Ch. 16	Read Ch. 17. 1 - 17.2	17.4 p 755 - 759	p 759 - 769
	Worksheet & Perusall Assignment	p 745 - 754		
	Orientation Quiz			
27	28	29	30	31
Lesson 17.1 contd.	ALEKS HW for Ch.	Ch. 17 Notes	Module 2	Lesson 18.1 contd.
Read Ch. 17.6	17		Lesson 18.1	Read Ch. 18.3
p 769 - 781	Module 1/Ch. 17	Ch. 17 Quiz	Read Ch. 18.1 - 18.2	p 802 - 806
	Worksheet & Perusall Assignment		p 796 - 802	
February 3	4	5	6	7
Lesson 18.1 contd.	Lesson 18.2 contd.	Lesson 18.2 contd.		Ch. 18 Notes
Read Ch. 18.4 -	Read Ch. 18.6 -	Read Ch. 18.8 -	18	
18.5	18.7	18.10		Ch. 18 Quiz
p 806 - 818	p 818 -825	p 825 - 835	Module 2/Ch. 18 Worksheet & Perusall Assignment	
10	11	12	13	14
Exam 1		Module 3	Lesson 19.1 contd.	Lesson 19.1 contd.
(CH 17, 18)		Lesson 19.1	Read Ch. 19.2	Read Ch. 19.2

		Read Ch. 19.1 p 849 - 851	p 851 - 861	p 851 - 861
17	18	19	20	21
Lesson 19.2	Lesson 19.2 contd.	Lesson 19.3	Lesson 19.3 contd.	Lesson 19.3 contd.
Read Ch. 19.3	Read Ch. 19.3	Read Ch. 19.4	Read Ch. 19.4	Read Ch. 19.5
р 861 - 874	р 861 - 874	p 874 - 885	p 874 - 885	p 888 - 892
24	25	26	27	28
Lesson 19.1 contd.	Mod 3/Ch. 19	Ch. 19 Notes	Module 4	Lesson 20.1 contd.
Read Ch. 19.5	Worksheet & Perusall		Lesson 20.1	Read Ch. 20.1
p 888 - 892	Assignment	Ch. 19 Quiz	Read Ch. 20.1	р 907 - 918
			p 907 - 918	
	ALEKS HW Ch. 19			
March 3	4	5	6	7
Lesson 20.1 contd.	Lesson 20.2	Lesson 20.2 contd.	Mod 4 Ch. 20	Ch. 20 Notes
Read Ch. 20.2	Read Ch. 20.3	Read Ch. 20.4	Worksheet & Perusall	
p 918 - 923	p 923 - 931	р 933 - 939	Assignment	Ch. 20 Quiz
			ALEKS HW for Ch. 20	
10	11	12	13	14
Exam 2	Module 5	Lesson 21.1 contd.	Lesson 21.2	Lesson 21.3
(CH 19, 20)	Lesson 21.1	Read Ch. 21.2	Read Ch. 21.3	Read Ch. 21.4
	Read Ch. 21.1	p 956 - 961	р 961 - 970	р 970 - 978
	р 951 - 956			
17	18	19	20	21
Spring Break	Spring Break	Spring Break	Spring Break	Spring Break
24	25	26	27	28
Lesson 21.2 cont'd	Lesson 21.4	Lesson 21.4 cont'd	Mod 5 Ch. 21	Ch. 21 Notes
Read Ch. 21.5 -	Read Ch. 21.7	Read Ch. 21.7	Worksheet &	
21.6	p 984 - 992	p 984 - 992	Perusall Assignment	Ch. 21 Quiz
р 978 - 984		F	ASSIGNMENT	
			ALEKS HW for Ch. 21	
31	April 1	2	3	4
Module 7	Lesson 23.2	Lesson 23.3 cont'd.	Lesson 23.3	Mod 7 Ch. 23
Lesson 23.1	Read Ch. 23.3	Read Ch. 23.4	cont'd.	Worksheet &

				Derusall
Read Ch. 23.1 - 23.2	p 1056 - 1065	p 1065 - 1073	Read Ch. 23.4 p 1065 - 1073	Perusall Assignment
p 1047 - 1055				
				ALEKS HW for Ch.
				23
7	8	9	10	11
Ch. 23 Notes	Module 6	Exam 3	Lesson 14.1 contd.	Lesson 14.1
	Lesson 14.1	(CH 21, 23)	Read Ch. 14.3 -	cont'd.
Ch. 23 Quiz	Read Ch. 14.1 - 14.2		14.4 р 586 - 590	Read Ch. 14.6 - 14.7
	p 581 - 586		,	р 594 - 607
	F			*Withdrawal deadline*
14	15	16	17	18
Lesson 14.1 cont'd.		Module 9	Lesson 24.1	Lesson 24.1 cont'd.
Read Ch. 14.8 -	Worksheet & Perusall	Lesson 24.1	cont'd.	Read Ch. 24.3 -
14.10	Assignment	Read Ch. 24.1	Read Ch. 24.2	24.5
p 607 - 617		р 1085 - 1095	p 1095 - 1101	p 1101 - 1112
	Ch. 14 Quiz			
ALEKS HW for Ch.				
21	22	23	24	25
Lesson 24.1 cont'd.		Ch. 24 Notes	Reading Day	Reading Day
Read Ch. 24.6 - 24.7	Worksheet & Perusall	Ch. 24 Quiz	Catch up on ALEKS Pie Progress	Catch up on ALEKS Pie Progress
p 1112 - 1121	Assignment		_	_
	ALEKS HW for Ch. 24			
28				
Cumulative Final Exam				
11:30 am - 1:30				
pm start time				
ALEKS Pie is due				

COURSEWORK ESTIMATED TIMES

Module : Chapter Sections	Canvas Video Lecture Time	Canvas Worked-Out Problems Time	ALEKS Module (HW) Approximate time
1 : Ch 17.1 - 17.6	28 min	31 min	3 hr
2 : Ch 18.1 - 18.4	25 min	35 min	3 hr
2 : Ch 18.5 - 18.8, 18.10	54 min	31 min	
3: Ch 19.1 - 19.4	36 min	122 min	3 hr
4: Ch 20.1 - 20.14	30 min	40 min	2 hr 45 min
5: Ch 21.1 - 21.3	20 min	62 min	4 hr
5: Ch 21.4 - 21.7	31 min	63 min	
6: Ch 14.1 - 14.4; 14.6 - 14.10			2 hr
7: Ch 23.1 - 23.4	36 min	61 min	3 hr
8: Ch 24.1 - 24.7	60 min		2 hr 15 min

SAMPLE GRADING RUBRIC

Worksheet Rubric							
Criteria	Ratings			Pts.			
Description of Criterion	2 to > 1.0 pts 100 - 90%	1.0 > 0.0 pts 50 - 90%	0 pts 50 - 0%	2 pts.			
	Student shows work for all questions in the worksheet. Student work is legible.	Student shows complete work for more than half of the questions.	Student shows complete work for less than half of the questions. Student work may be illegible.				
				Total Points: 2			

Notes Rubric		
Criteria	Ratings	Pts.

Quality of Notes	2.5 to > 1.5 pts Full Marks Includes notes from each lecture video (not including a worked out problem videos). Uses complete sentences. Short responses are not acceptable.	1.5 to > 0.0 pts Partial credit Includes some guided notes. Includes a couple of incomplete sentences.	0 pts No Marks Incomplete guided notes and short (or incomplete) responses to required fields.	2.5 pts		
Filling out the required fields	2.5 to > 1.5 pts Full Marks Includes objectives, definitions, notes, self assessment, and a complete summary.	1.5 to > 0.0 pts Partial credit Partially completes the required fields.	0 pts No Marks Incomplete filling out of required fields.	2.5 pts		
Total Points: 5						

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.