

# CHM2051 — Honors General Chemistry 2

## Course Information

Class #17118 (Honors Section) and #17119.

Credits: 3; Prereq: MAC1147 or the equivalent, and a minimum score of 'B+' in CHM2045 (or the equivalent). Second semester of the sequence CHM2045-2045I-2051-2046I. Course is open to students with superior performance in CHM2045 or its equivalent. Acids and bases, additional aspects of chemical equilibria, thermodynamics, electrochemistry, complex ions and descriptive chemistry and instructor-chosen topics. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena. (P)

## Instructor

Dr. Alexander Angerhofer (Dr. A);

Office: CLB318A; phone: 392-9489; email: [alex@chem.ufl.edu](mailto:alex@chem.ufl.edu) (please email your instructor through the Canvas messaging app).

Office Hours (OH): **M-4, T-10, and W-8** periods in CLB318A, and by appointment.

## Teaching Assistants (TA)

Name	TA	Team	e-mail	Office Hours <sup>1</sup>
Adam Ahmad	UGTA	Cobalt	<a href="mailto:ahmad.ad@ufl.edu">ahmad.ad@ufl.edu</a>	M-10, W-10
Safi Ali	UGTA – head	Co – Dy	<a href="mailto:sali4@ufl.edu">sali4@ufl.edu</a>	M-7, W-5
Usama (Mahi) Athar	Graduate TA		<a href="mailto:athar.uzafar@ufl.edu">athar.uzafar@ufl.edu</a>	W-7, R-8,9
Ava Bruno	UGTA	Fluorine	<a href="mailto:avabruno@ufl.edu">avabruno@ufl.edu</a>	T-4, W-E1
Isabel Gomez	UGTA	Fluorine	<a href="mailto:isabel.gomez@ufl.edu">isabel.gomez@ufl.edu</a>	M-8, R-7
Colin Liang	UGTA	Cobalt	<a href="mailto:colin.liang@ufl.edu">colin.liang@ufl.edu</a>	T-11, R-11
Daoyi Liu	UGTA	Argon	<a href="mailto:liu.daoyi@ufl.edu">liu.daoyi@ufl.edu</a>	T-5, R-5
Katie Natour	UGTA – head	Ar – Ba	<a href="mailto:k.natour@ufl.edu">k.natour@ufl.edu</a>	M-11, W-2
Bryce Ownby	UGTA – head	Eu – F	<a href="mailto:b.ownby@ufl.edu">b.ownby@ufl.edu</a>	M-3, R-8
Roni Saffar	UGTA	Argon	<a href="mailto:roni.saffar@ufl.edu">roni.saffar@ufl.edu</a>	M-9, R-10
Medina Sanwari	UGTA – master		<a href="mailto:medina.sanwari@ufl.edu">medina.sanwari@ufl.edu</a>	T-6, W-9
Tirth Shah	UGTA	Dysprosium	<a href="mailto:tirthshah@ufl.edu">tirthshah@ufl.edu</a>	W-11, R-6
Shreya Sreekanth	UGTA	Barium	<a href="mailto:ssreekanth@ufl.edu">ssreekanth@ufl.edu</a>	M-2, R-4
Massimo Sullivan	UGTA	Barium	<a href="mailto:massimo.sullivan@ufl.edu">massimo.sullivan@ufl.edu</a>	T-7, T-8
Syarif Syafii	UGTA	Dysprosium	<a href="mailto:syafii.a@ufl.edu">syafii.a@ufl.edu</a>	M-E1, W-E2
Laura Thapaliya	UGTA	Europium	<a href="mailto:laura.thapaliya@ufl.edu">laura.thapaliya@ufl.edu</a>	T-9, W-4
Margaret Toth	UGTA	Europium	<a href="mailto:tothm@ufl.edu">tothm@ufl.edu</a>	M-6, W-6

## Course Delivery/Meeting Times

The course is delivered in a face-to-face format. The class meets during second and third periods on Tuesdays and Thursdays (TR2-3) in Flint Hall 50. This is a double period and the 15 minute break will be shortened to 5 minutes and taken when the flow of the lecture allows. Therefore, class will start 5 minutes later than 2<sup>nd</sup> period starts and end 5 minutes earlier than 3<sup>rd</sup> period ends, *i.e.*, class meet times are 8:35 am – 10:20 am. There will not be any class activities during holidays, *i.e.*, 01/19 (MLK Day), 03/16 – 03/20 (spring break) and 04/23-24 (reading days). The three during-term exams (see schedule below) will be taken during class meeting times.

## Course Fees/Credit Hours

There are no course fees for CHM2051. The course provides 3 credit hours in the P category.

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<sup>1</sup> All TA office hours take place on Zoom at <https://ufl.zoom.us/j/96404172901> during the indicated periods.

## Required/Recommended Course Materials

The required textbook is 'Chemistry: Atoms First 2e' by OpenStax. The textbook is freely available on the internet: <https://openstax.org/details/books/chemistry-atoms-first-2e>. ISBN: 978-1-947172-63-0. It can also be purchased as a regular paper-based textbook. Page references to the text in this syllabus refer to the updated web version of the text.

A license to 'Learning Catalytics' from Pearson needs to be purchased for the class here: <http://www.learningcatalytics.com>. Please note that guidelines on how to obtain the license are available on Canvas under Files → Resources → Get\_Started\_Flyer\_Learning\_Catalytics.pdf.

A scientific calculator capable of logarithmic functions is required for exams. The calculator must be non-graphing and non-programmable.

In addition, any reasonably recently published or updated General Chemistry textbook is recommended for you to review material.

## Grading Scheme

There is some extra credit available on exams and homework (HW) assignments. Grades are not rounded at the end of term. Exam and course grades are not curved. Current UF grading policies for assigning grade points can be found in the [catalog](#).<sup>2</sup>

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

Tentative assignment weights are as follows:

Assignment Group	Points
During-Term Exams (DTEs)	750 (2 best scores plus an average-replace score, see detailed explanation below)
Optional Final Exam	250 (will replace the lowest scoring DTE)
Homework (HW)	100 (10 weekly homework assignments, 10 each)
Pre-lecture and in-class learning catalytics	90
Team Projects	60 (3 exam prep Jeopardy games, 20 each)
Total Points Earnable	1000

Grade Scale:

Letter	A	A–	B+	B	B–	C+	C	C–	D+	D	E
Cutoff	850	825	800	750	725	700	650	625	600	550	<550

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<sup>2</sup> see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for more info on UF grade policies. For Honors Students: A minimum grade of B is required to earn academic points towards your Honors Completion Requirements. Once you have earned your final grade in this course, please upload the course information and final grade from your Unofficial Transcript into your Honors Canvas Cohort: Honors Completion module to earn Honors Milestone/Completion credit.

## Course Schedule (tentative):

Date	Day	Chap.	Topic	Reading
01/13/26	T		Disc. of Syllabus and brief review of General Chemistry 1	
01/15/26	R	12	Thermodynamics, Spontaneity, Entropy, and Microstates	pp. 599 – 608
01/20/26	T	12	2 <sup>nd</sup> and 3 <sup>rd</sup> Law of Thermodynamics, Work, Gibbs Free Energy, Rxn Direction	pp. 609 – 618
01/22/26	R	13	Chemical Equilibrium, Definitions, Law of Mass Action, Equilibrium Constant, Homogeneous/Heterogeneous Equil.	pp. 627 – 638
01/27/26	T	13	Le Châtelier's Principles, Effects of Concentration, Pressure, and Temperature Changes, Direction of Change	pp. 639 – 656
01/29/26	R	14	Acid/Base Definitions and Equilibria, pH, pOH	pp. 669 – 678
02/03/26	T	14	pK <sub>a</sub> , pK <sub>b</sub> , Relative Acid/Base Strengths, Quantitative Analysis Molecular Structure, Binary/Ternary Acids, Graphical Analysis	pp. 678 – 692
02/05/26	R	14	Hydrolysis of Salts, Polyprotic Acids, Buffers, Titrations, Indicators, Applications, Jeopardy I – exam review (during 3 <sup>rd</sup> period)	pp. 692 – 713
02/10/26	T	12–14	Exam #1	
02/12/26	R	15	Lewis Acid/Base Chemistry, Coupled Equilibria	pp. 739 – 747
02/10/26	T	15	Precipitation Equilibria	pp. 725 – 739
02/19/26	R		Atmospheric Chemistry (AC), composition, upper atmosphere, ozone chemistry, CFCs and their implications	ARM <sup>3</sup>
02/24/26	T		The greenhouse effect, CO <sub>2</sub> and other greenhouse gases	ARM <sup>5</sup>
02/26/26	R		Acid rain, NO <sub>x</sub> and SO <sub>x</sub> chemistry	ARM <sup>5</sup>
03/03/26	T	16	Electrochemistry, redox rxns, electrochemical cells, half-rxns, electrical work, standard cell potential	pp. 759 – 772
03/05/26	R	16	Equilibrium, Free Energy, Nernst Equation, Batteries, Fuel Cells, Corrosion, Electrolysis	pp. 772 – 790
03/10/26	T	18	Metallurgy, Metalloids, Nonmetals, Jeopardy II – exam review (during 3 <sup>rd</sup> period)	pp. 862 – 889
03/12/26	R	15, 16, 18, AC	Exam #2	
03/24/26	T	19	Transition metals, Coordination Chemistry	pp. 939 – 966
03/26/26	R	19	Crystal Field Theory, Spectroscopy, Magnetism	pp. 966 – 974
03/31/26	T	20	Nuclear Chemistry, Nuclear Structure and Stability, Nuclear Reactions, Radioactive Decay, Radiometric Dating,	pp. 981 – 1001
04/02/26	R	20	Transmutation and Energy, Uses of Radioisotopes, Biological Effects	pp. 1002 – 1026
04/07/26	T	21	Organic Chemistry, Types of Organic Molecules, Nomenclature, Lewis Structures	pp. 1037 – 1073
04/09/26	R	21	Classes of Organic Rxns, Functional Groups, Properties, Reactivities, Curved Arrow Notation	ARM <sup>5</sup>
04/14/26	T	21	Isomerism, Molecular Orbitals, Aromaticity.	ARM <sup>5</sup>
04/16/26	R	19–21	Jeopardy III – exam review (during 2 <sup>nd</sup> period). 3 <sup>rd</sup> period guest lecture. Speaker tbd	
04/21/26	T	19–21	Exam #3	
04/28/26	F		Comprehensive Final Exam (Optional) 10:00 am – 12:00 pm	in FLI 050

3 ARM = additional reading material supplied by the instructor.

Office Hour Schedule for CHM2051:

SPRING 2026																																							
UNIVERSITY OF FLORIDA																																			SCHEDULE CARD				
															NAME: CHM2051 Office Hours																								
															Univ. Address:															Univ. Phone:									
Per.	Hour	Monday	Bldg/Rm #	Tuesday	Bldg/Rm #	Wednesday	Bldg/Rm #	Thursday	Bldg/Rm #	Friday	Bldg/Rm #																												
1	7:25-8:15																																						
2	8:30-9:20	Shreya	Zoom	CHM2051	FLI 50	Katie	Zoom	CHM2051	FLI 50		FLI 50																												
3	9:35-10:25	Bryce	Zoom	CHM2051	FLI 50			CHM2051	FLI 50		FLI 50																												
4	10:40-11:30	Tirth	Zoom	Ava	Zoom	Laura	Zoom	Shreya	Zoom		Zoom																												
5	11:45-12:35 p	Dr. A	CLB318A	Daoyi	Zoom	Safi	Zoom	Daoyi	Zoom		Zoom																												
6	12:50-1:40	Margaret	Zoom	Medina	Zoom	Margaret	Zoom	Tirth	Zoom		Zoom																												
7	1:55-2:45	Safi	Zoom	Massimo	Zoom	Mahi	Zoom	Isabel	Zoom		Zoom																												
8	3:00-3:50	Isabel	Zoom	Massimo	Zoom	Dr. A	CLB318A	Bryce, Mahi	Zoom		Zoom																												
9	4:05-4:55	Roni	Zoom	Laura	Zoom	Medina	Zoom	Mahi	Zoom		Zoom																												
10	5:10-6:00	Adam	Zoom	Dr. A	CLB318A	Adam	Zoom	Roni	Zoom		Zoom																												
11	6:15-7:05	Katie	Zoom	Colin	Zoom			Colin	Zoom		Zoom																												
E-1	7:20-8:10	Syarif	Zoom			Ava	Zoom																																
E-2	8:20-9:10					Syarif	Zoom																																
E-3	9:20-10:10																																						
Comments:																																							

Further Important Information:

1. **Course Objectives:** To introduce general chemistry concepts and problem-solving skills and their relationship to advanced topics in science and engineering.

Second semester of the sequence chm 2045-2045l-2051-2046l. Course is open to students with superior performance in chm 2045 or its equivalent. Acids and bases, additional aspects of chemical equilibria, thermodynamics, electrochemistry, complex ions and descriptive chemistry and instructor-chosen topics. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.

Student Learning Outcomes (SLOs)

- Students will be able to clearly communicate in writing information derived from course related readings/lectures about the major concepts and themes in the chemical sciences.
- Students will be able to apply knowledge of the fundamental principles of chemical, acid/base and aqueous equilibria to perform related calculations and make predictions of system behavior.
- Students will be able to describe and apply the fundamental principles of thermodynamics and electrochemical systems.
- Students will be able to describe the properties of complex ions and coordination compounds; this may include an introductory understanding of electronic structure and reactivity of complexes with applications to synthetic and biological systems.
- Students will be able to analyze the connection between the fundamental chemical principles presented relate to subdisciplines including nuclear and organic chemistry.

2. **General Education Objectives and Learning Outcomes:** Primary General Education Designation: Physical Sciences (P) ([area objectives available at this link](#)). 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	Assessment
Content <i>Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline.</i>	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.	Content knowledge is assessed through assigned homework problems, exams, and pre-lecture LC assignments.
Critical Thinking <i>Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.</i>	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.	Critical thinking is assessed through assigned homework problems, exams, and pre-lecture LC assignments.
Communication <i>Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.</i>	Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.	Communication is assessed through assigned homework problems and in-class LCs problems and discussions.

To achieve these objectives, students are required to participate in all class activities, specifically:

- Regular attendance of lectures in which the course material will be discussed and demonstrated is essential for success in the course (see also #13 below). Lecture attendance requires active participation on the student's part. Large sections of class time will be spent in scientific dialog between teacher and students where we will practice the art of scientific reasoning.
  - Small group discussions are held during most lecture periods in which students will discuss and apply the concepts learned in class under the guidance of the instructor. These activities focus on problem solving and further explore difficult concepts that need additional explanation beyond the lectures. Students are expected to participate actively. This will not only give students helpful feedback on their own work but also train their logical reasoning skills through scientific criticism and argument.
  - Weekly graded homework assignments involve conceptual and numerical problems that require the student to apply the learned concepts to specific examples. Problems are taken from different areas of experimental and theoretical chemistry including physical and life processes. Homework problems also include reading material, typically a topically related original research article requiring the student to summarize and comment in their own words.
  - Three mid-term exams will be administered throughout the semester. Due to time constraints exam questions can not be as detailed and time-intensive as the homework problems. Emphasis is placed on testing the student's reasoning skills and their understanding of the material rather than rote memorization of facts. On their exams, students will receive all pertinent equations.
  - Office Hour attendance is strongly recommended. 37 weekly office hours are offered by instructor and TAs, conveniently spread out over the whole week (see page 3 of this syllabus). Students are strongly encouraged to seek help and feedback on all concepts and problems encountered in class. While office hour attendance is completely voluntary, it is an important activity that will help solidify students' understanding of the material and make them successful in the course.
3. **Class Meeting Times and Instructor:** The course is split into two sections (class numbers 17118 and 17119) which meet TR2–3 periods in FLI050. There are no recitation sessions and practice problems will be worked in class under the guidance of the instructors. Since we have double-block periods the meeting times will be organized as follows: We will normally start 5 minutes late at 8:35 am. A 5-minute break will be taken whenever the flow of the lecture allows, *i.e.*, may not be exactly in the middle of a two-period block. Class ends ~5 minutes early, *i.e.*, 10:20 am.
  4. **Honors:** This course is reserved for students who performed at a high level in CHM2045 (or the equivalent), demonstrated by a minimum of a 'B+' grade by the end of the fall 2025 term. The course is organized around a smaller classroom environment more conducive to an interactive teaching style. While we will cover the same material as CHM2046, often to a deeper level, we will spend a little more time discussing topics that are important to real life applications of chemistry. That means less time will be allocated to drills. Students are expected to spend significant amounts of time outside the classroom to work on their problem solving skills. Homework sets will contain long-response problems that focus on understanding the material and students are encouraged to form study groups to work together on these problem sets. Our class will use the 'Learning Catalytics' site for in-class participation as well as pre-lecture questions.
  5. **Course Fees:** There are no course fees for CHM2051.
  6. **Math Requirements:** Students are expected to have a solid grasp of pre-calculus algebra and trigonometry and need to show credit for MAC1147 (college-level algebra with trigonometry) on their transcripts. During lectures, concepts from Calculus may be briefly discussed but will not appear on exams. When derivatives or integrals are mentioned, the focus is primarily on their graphical interpretation to aid understanding of chemical or physical concepts. When homework problems require their use, feel free to employ computational solvers such as Wolfram Alpha: <http://www.wolframalpha.com/>.
  7. **Exam Policies:** Three during-term exams will be given (see schedule above). These exams are conducted during class periods. Exam duration will be 115 minutes. The final exam is cumulative and amounts to the same number of points as a during term exam. It is optional since the lowest-scoring out of the four exams is dropped. For exams you must use a non-graphing non-programmable scientific calculator with log, ln, root, and exponent (scientific notation) functions. Be sure to also bring pen or pencils and bring your UF ID badge. Remember your section number and team element. In this course you are permitted to use a letter-sized sheet of paper with your own hand-written notes on front and back in all exams. No other notes, papers, cell phones, or other electronic devices can be in view during

exams. UF examination and reading day policies:

<https://catalog.ufl.edu/UGRD/academic-regulations/examination-policies-reading-days/>.

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 to miss a scheduled exam include conflicting evening exams in courses with higher course numbers (does not apply here since we won't have evening exams), 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/#absencetext>. If you must be absent during an exam due to a documented and approved conflict known in advance, you must e-mail your instructor (through the course Canvas interface) the documentation at least *one week prior* to the scheduled exam date 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. You may also contact the Dean of Students Office who can provide instructor-notification based on the documentation you provide to them. Your instructor will follow UF academic regulations in evaluating the notification and/or documentation received. In the case of a valid exam absence, a make-up exam will be scheduled before the last day of the term. If your documentation is deemed insufficient to excuse your absence you will receive a zero on the missed exam.

Average/Replace Policy: 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). The “average/replace” policy will help minimize the impact of a single poor performance.

Tip for Exam Preparation: While studying for your exams, prepare your note sheet with important information, equations, concepts, anything that you might need and don't want to memorize for your exams.

8. **Canvas:** Access your Canvas e-learning account by clicking on the ‘Log-In to E-Learning’ link on the web site, <http://lss.at.ufl.edu/> where you will have to supply your Gatorlink credentials to log in. Please, do this at your earliest convenience and make yourself familiar. Canvas will be primarily used by TAs and the instructor to communicate with the class. Please make sure to monitor the announcements on a regular basis. If you experience technical problems when using Canvas, please contact the UFIT helpdesk (<http://helpdesk.ufl.edu/>, 352-392-4357 M–F from 8:00 am till 5:00 pm, email [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu) or [learning-support@ufl.edu](mailto:learning-support@ufl.edu)).
9. **Homework (HW):** Ten HW assignments will be given over the course of the semester. They will normally be published on Canvas by Thursday afternoon and are due the following week on Friday morning at 8:00 am as a pdf file (scan of your work) on canvas, *i.e.*, you have a little more than a week to complete your assignments. Late HW policy: HW is late if it is not delivered by the stated deadline. Each day late will incur a 20% deduction of the total points value. Do your HW! By doing HW problems you will collect essential points toward your grade and will be better prepared to deal with problems on exams. Do your homework early! This will allow you to communicate with fellow students and give or receive corrections. HW problems come from many different sources, including the instructors' own personal lists of problems. Since these will be the most challenging problems you will encounter in CHM2051, you may form study groups with other students to work on them. However, simply copying someone else's work is plagiarism and will be treated as such! (see <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>).
10. **Learning Catalytics (LC) Grade:** In this course, we will use LC for your digital device to respond to questions pertaining to the study material. Up to 9% of your total grade can be earned through LC activities. This is primarily done with your digital wifi-enabled device (smartphone, tablet, notebook PC, *etc.*) to respond to questions asked by the instructor throughout the lectures. There will also be LC pre-lecture assignments, worked out at home and due before class starts, covering the reading assignments (see schedule on page 2). They will typically be available a full day before each lecture. Please note that LC questions will be assigned throughout the term based on class progress and their total number is not yet known at the beginning of the semester. To achieve 100% of the LC grade (90 points for 9% of your final grade), you need to answer 75% of all LC questions correctly. If you earn less than 75% of the achievable LC points, your LC score will be prorated accordingly by the formula  $x(90/75)$  where  $x$  = percentage of LC points earned during the semester. For example, if Nigel (a fictitious student) earns 60% of the available LC points, his total LC points amount to  $60(90/75) = 72$  which counts for 7.2% toward his final grade in the class. You will need to purchase access and create a student account on <https://learningcatalytics.com/>. Follow instructions on that web site, or in the registration document on your Canvas account (click on Files → LC →

Get\_Started\_Flyer\_Learning\_Catalytics.pdf) to activate your account. When registering make sure to use your full first and last name with correct spelling including capitalization. This is important for your instructor to correctly link your LC gradebook entry to your course grades on Canvas. Do not register twice! If you have trouble logging in, get in touch with Pearson's helpdesk online at <https://support.pearson.com/getsupport/s/contactsupport>. The cost for LC is \$12 for the semester. You are required to bring at least one wifi-enabled digital device to class for this activity. If you don't have access to a digital device, please contact the instructor.

11. **Team Projects:** The students in the class will be divided into six teams, each with its own element name. Each team will participate in three "Jeopardy" games. For each of these games, two groups will be responsible for coming up with the questions while the other four groups compete. The members of each team will receive points for their participation in these games ( $3 \times 20 = 60$  points or 6% of final grade). The "Jeopardy" games will be a valuable tool for your exam preparation.
12. **Calculators:** You must have your own scientific calculator. Calculators may be used on homework and exams but may not be shared during exams. You may **not** use graphing calculators or any calculators that are capable of communication on any exam. Simple inexpensive scientific calculators such as the TI-30 series or the Casio fx-260 are acceptable and sufficient for any problem encountered on exams.
13. **Class Attendance:** Regular attendance is essential for your success in this class. However, we will not do roll-calls. Repeated absence in class will make it very difficult to earn full participation points. For further information on UF's attendance policies which are in effect for this course, see: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
14. **Study Habits:** The course demands on average 10 – 12 hours/week of work outside of class. The class will not be taught 'by the book.' It is expected that you read the assigned pages from the textbook in advance before coming to class. Pre-lecture assignments on LC will focus on the most important points in the reading assignments and can be done at your own pace. The instructor will build on this material and you are expected to be able to follow in-class discussion. The course demands a regular sustained effort throughout the semester. Most importantly, **do not allow yourself to fall behind!** The material builds up and you need to stay ahead of the game. If you find that you are not grasping essential material by reading the textbook and following in-class discussion, **seek help!** Visit your instructor's and/or TAs' office hours, talk to other students in your class, compare notes, form a study group, consult other text books, *etc.*
15. **Study Groups:** It is strongly encouraged to form study groups (within or beyond teams) and meet with them on a weekly basis to discuss course material and to prepare for exams. In this course it is permissible for you to work on HW assignments together with your study partners. However, you are responsible to fully understand your own worked-out HW submissions and may not just copy someone else's. Not understanding HW problems will haunt you on exams.
16. **Office Hours:** The instructor, the graduate TA, and 16 undergraduate TAs offer a total of 37 different office hours spread out over the week. The detailed times and locations are listed on the first page of this syllabus and the schedule on the third page. Please note that office hours are listed by the class period in which they are taking place (for example R-9 is 9<sup>th</sup> period on Thursdays). This is time we set aside for you. Take advantage of it! Please note that you are not limited to only the TA assigned to your team. Please note that all TA office hours and Dr. A's <tba> period OH are on zoom at the following link: <https://ufl.zoom.us/j/96320318806>.
17. **Instructional Materials** for this course consist of only those specifically reviewed, selected, and assigned by the instructor and fall under his responsibility.
18. **Emergency Numbers and Web Sites:**  
UFPD (UF Police Department): In case of emergency dial 911. The UF campus police non-emergency number is 352-392-1111. Their web site: <https://police.ufl.edu/>,  
UF Emergency management: 352-273-2100. <https://emergency.ufl.edu/>,  
Infirmary (Student Health Care Center): 352-392-1161, <http://shcc.ufl.edu/>.  
EH&S (Environmental Health & Safety): 352-392-1591, <http://www.ehs.ufl.edu/>.
19. **Information for Honors Students (Class #17118):**

Honors Program Location: Honors Village Bldg. 4; 352-392-1519. For quick questions for an Honors advisor, email [advisor@honors.ufl.edu](mailto:advisor@honors.ufl.edu). For an Honors advising appointment schedule via Microsoft Bookings: <https://bit.ly/ufhonorsadvising>. For the Honors Program Event Calendar follow this URL: <https://www.honors.ufl.edu/news--events/calendar-of-events/>.

20. **Other Academic Policies and Resources:** For further academic policies and resources at UF, follow this link: <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>.
21. **Cell Phone Etiquette:** Please put all cell phones or other electronic devices on “**silent mode**” during all class periods. Please do not leave the classroom during lectures to make a phone call. Use your cell phone only for ‘learning catalytics’ activities while class is in session. Thank you!
22. **Group-Me:** The TAs will set up team group-me groups for easier communication. The class is encouraged to set up a whole-class group-me as well.
23. **Honor Code:** This class operates under the policies of the student honor code (see here for the link: <https://policy.ufl.edu/regulation/4-040/>). The students, instructor, and TAs are honor-bound to comply with the Honors 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 by abiding by the Student Honor Code. On all work submitted for credit by Students 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.”*
24. **Disclaimer:** This syllabus represents my current plans and objectives. If those need to change as the semester progresses, then the changes will be communicated to the class clearly during lecture announcements and on canvas and the syllabus will be updated.

I am looking forward to spend the semester with you and introduce you to some of the fundamentals of modern chemistry. If you have further questions, please contact me. Have a great semester!

Sincerely Yours,

Dr. Alexander Angerhofer (Dr. A)