Credits: 3; Prereq: MAC1147 or the equivalent and either a passing score on the ALEKS placement exam or a passing grade in CHM1025; Coreq: CHM2045L.

This course is the first semester of the General Chemistry 1 and 2 sequence (CHM2045/L and CHM2046/L or equivalents) and covers stoichiometry, atomic and molecular structure, the states of matter, reaction rates and equilibria. The course is designed with the needs of Chemistry and Biochemistry majors in mind and will go more in depth into topics they will need in higher level chemistry courses. A minimum grade of ‘C’ is required to pass the course and progress to CHM2046. A minimum grade of ‘B+’ is required to progress to CHM2051 (Honors General Chemistry II).

Instructor
Dr. Alexander Angerhofer (Dr. A)
Phone/Email
392 9489 (office, CLB318A); alex@chem.ufl.edu
O.H.
During T–9, W–2 periods in CLB318A, and by appointment.

Grad. TA
Mahi Athar (athar.uzafar@ufl.edu), OH:

Undergrad. TAs
Shayan Abbas (ms.abbas@ufl.edu), OH: M–7 & R–9 on Zoom*
Shaheer Ali (sali2@ufl.edu), OH: M–11 & R–10 on Zoom*
Rahaf Al-Takrouri (raltakrouri@ufl.edu), OH: T–4 & R–6 on Zoom*
Isabella Dy (isabellady@ufl.edu), OH: M–4 & W–4 on Zoom*
Christian Ebo (c.ebo@ufl.edu), OH: M–6 & W–7 on Zoom*
Nick Farahani (nick.farahani@ufl.edu), OH: T–2 & F–2 on Zoom*
Rian Freeman (rfreeman1@ufl.edu), OH: T–7 & R–8 on Zoom*
Verda Gordu (gorduv@ufl.edu), OH: M–10 & W–11 on Zoom*
Christopher Hamlin (hamlin@ufl.edu), OH: T–6 & R–7 on Zoom*
Angela Jiang (anjiang@ufl.edu), OH: T–11 & W–6 on Zoom*
Gavin Johnston (johnstongavin@ufl.edu), OH: M–8 & W–8 on Zoom*
Michelle Lee (michelle.lee@ufl.edu), OH: M–E1 & W–10 on Zoom*
Puja Mudam (puja.mudam@ufl.edu), OH: M–5 & W–5 on Zoom*
Pavithra Ramachandria (p.ramachandria@ufl.edu), OH: M–9 & W–9 on Zoom*
Vivian Rao (vivian.rao@ufl.edu), OH: T–10 & R–4 on Zoom*
Nico Rodriguez (rodriguezn3@ufl.edu), OH: T–5 & R–5 on Zoom*
Isabelle Ruan (isabelleruan@ufl.edu), OH: M–3 & W–3 on Zoom*

*All Zoom office hours will be at: https://ufl.zoom.us/meeting/96320318806.

Class Meeting Times
TR2–3 periods, 8:35am–10:20am in Flint Hall 50.

Holidays
09/04 (Labor Day), 10/06 (UF Homecoming), 11/10 (Veterans Day), 11/22 – 24 (Thanksgiving holidays), 12/07 – 08 (reading days).

Class Text
‘Chemistry: Atoms First’ 2e by OpenStax. The text is required and will be used for lecture preparation and practice problems (see course schedule). It is freely available here: https://openstax.org/details/books/chemistry-atoms-first-2e.

Homework
Graded HW is assigned weekly except during weeks of during-term exams.

Points Earnable
3 progress exams @ 20% each, for 60% total.
1 cumulative final exam @ 20%.
10 homeworks @ 1% each, for 10% total.
Participation grade (learning catalytics) @ 5% total.
Team projects @ 3% total.
1 ALEKS prep, due online Sept. 8 @ 2% total.
Total earnable points are 100%.

Grading Scheme1
A: ≥ 90.0% > 90.0% > A− ≥ 86.0%
86.0% > B+ ≥ 83.0% > 83.0% > B ≥ 80.0%
80.0% > B− ≥ 77.0% > 77.0% > C+ ≥ 73.0%
73.0% > C ≥ 69.0% > 69.0% > D+ ≥ 66.0%
66.0% > D ≥ 63.0% > 63.0% > D− ≥ 60.0%
60.0% > E.

1A minimum grade of C is required to progress to CHM 2046. For more info on UF grade policies, see: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Chap.</th>
<th>Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/24/23</td>
<td>R</td>
<td>1</td>
<td>Discussion of Syllabus and review of chap. 1, Phases, Matter,</td>
<td>Chap. 1</td>
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<td>Physical and Chemical Properties, Measurement Units, Unit Conversion,</td>
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<td>Greek Prefixes, Significant Figures.</td>
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<tr>
<td>08/29/23</td>
<td>T</td>
<td>2</td>
<td>Review of chap. 2, Historic Evolution of Atomic Theory, Atomic</td>
<td>Chap. 2</td>
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<td>Structure, Symbols, Chemical Formulae.</td>
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<tr>
<td>08/31/23</td>
<td>R</td>
<td>3</td>
<td>Fundamental Forces and Energy, Waves, Blackbody Radiation,</td>
<td>Chap. 3.1 – 3.2</td>
</tr>
<tr>
<td>09/05/23</td>
<td>T</td>
<td>3</td>
<td>Quantum Mechanics, Electrons in Atoms, Atomic Orbitals, and Electron</td>
<td>Chap. 3.3</td>
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<td>Spin</td>
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<tr>
<td>09/07/23</td>
<td>R</td>
<td>3</td>
<td>Pauli Exclusion Principle, Electronic Structure of Atoms, Electron</td>
<td>Chap. 3.4</td>
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<td>Configuration, Aufbau Principle, Quantum Numbers.</td>
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<tr>
<td>09/12/23</td>
<td>T</td>
<td>3</td>
<td>The Periodic Chart, Periodic Trends in Element Properties, Molecular</td>
<td>Chap. 3.5 – 3.7</td>
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<td>and Ionic Compounds.</td>
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<td>09/14/23</td>
<td>R</td>
<td>4</td>
<td>Electronegativity, Ionic Bonding, Covalent Bonding, Nomenclature,</td>
<td>Chap. 4.1 – 4.4</td>
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<td>Lewis Structures</td>
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<tr>
<td>09/19/23</td>
<td>T</td>
<td>4</td>
<td>Lewis Structures, Formal Charges, Resonance, Molecular Structure and</td>
<td>Chap. 4.4 – 4.6</td>
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<td>Polarity, VSEPR Theory</td>
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<tr>
<td>09/21/23</td>
<td>R</td>
<td>1 – 4</td>
<td>Jeopardy #1 (exam preparation)</td>
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<tr>
<td>09/26/23</td>
<td>T</td>
<td>1 – 4</td>
<td>Exam #1 covering ALEKS prep and chapters 1 through 4</td>
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<td>09/28/23</td>
<td>R</td>
<td>5</td>
<td>Valence Bond Theory, Hybrid Atomic Orbitals.</td>
<td>Chap. 5.1 – 5.2</td>
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<tr>
<td>10/03/23</td>
<td>T</td>
<td>5</td>
<td>Inorganic Molecules, MO Theory</td>
<td>Chap. 5.3</td>
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<tr>
<td>10/05/23</td>
<td>T</td>
<td>5</td>
<td>MO Theory, Diatomics, Bond Order</td>
<td>Chap. 5.4</td>
</tr>
<tr>
<td>10/10/23</td>
<td>T</td>
<td>6</td>
<td>Review of formula mass, empirical/molecular formulae, and molarity,</td>
<td>Chap. 6.1 – 6.4</td>
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<td>other concentration measures</td>
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<tr>
<td>10/12/23</td>
<td>R</td>
<td>7</td>
<td>Classification of Chemical Rxns, Acid/Base, Precip., Redox</td>
<td>Chap. 7.1 – 7.2</td>
</tr>
<tr>
<td>10/17/23</td>
<td>T</td>
<td>7</td>
<td>Stoichiometry, Reaction Yields, Quantitative Chemical Analysis.</td>
<td>Chap. 7.3 – 7.5</td>
</tr>
<tr>
<td>10/19/23</td>
<td>R</td>
<td>8</td>
<td>Gases, Pressure, Volume, Amount, Temp., Ideal Gas Law.</td>
<td>Chap. 8.1 – 8.2</td>
</tr>
<tr>
<td>10/24/23</td>
<td>T</td>
<td>8</td>
<td>Stoichiometry of Gases, Mixtures, Rxns, Molecular Kinetic Gas Theory</td>
<td>Chap. 8.3, 8.5</td>
</tr>
<tr>
<td>10/26/23</td>
<td>R</td>
<td>5 – 8</td>
<td>Jeopardy #2 (exam preparation)</td>
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<td>10/31/23</td>
<td>T</td>
<td>5 – 8</td>
<td>Exam #2 covering chapters 5 through 8.</td>
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<tr>
<td>11/02/23</td>
<td>T</td>
<td>9</td>
<td>Thermochemistry Basics, Calorimetry.</td>
<td>Chap. 9.1 – 9.2</td>
</tr>
<tr>
<td>11/07/23</td>
<td>T</td>
<td>9</td>
<td>Enthalpy, Bond Strengths of Ionic and Covalent Bonds.</td>
<td>Chap. 9.3 – 9.4</td>
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<tr>
<td>11/14/23</td>
<td>T</td>
<td>10</td>
<td>Phase Diagrams, Solid State, Crystalline Solids, Lattice Structure.</td>
<td>Chap. 10.4 – 10.6</td>
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<td>11/16/23</td>
<td>R</td>
<td>11</td>
<td>Dissolution Process, Electrolytes, Solubility.</td>
<td>Chap. 11.1 – 11.3</td>
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<tr>
<td>11/21/23</td>
<td>T</td>
<td>11</td>
<td>Colligative Properties and Colloids.</td>
<td>Chap. 11.4 – 11.5</td>
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<td>11/30/23</td>
<td>R</td>
<td>17</td>
<td>Rate Laws, Differential and Integral Rate Laws.</td>
<td>Chap. 17.3 – 17.4</td>
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<td>12/05/23</td>
<td>T</td>
<td>9–11,17</td>
<td>Jeopardy #3 (exam preparation)</td>
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<td>12/05/23</td>
<td>T</td>
<td>9–11,17</td>
<td>Exam #3 covering chapters 9 through 11 and 17.</td>
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<tr>
<td>12/15/20</td>
<td>T</td>
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<td>Cumulative Final Exam 10:00am – 12:00pm.</td>
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<td>3:30-5:00</td>
<td>CMH2050 FRI 500</td>
<td>Isabelle</td>
<td>Zoom</td>
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<tr>
<td>4:30-6:00</td>
<td>CMH2050</td>
<td>FRI 500</td>
<td>Zoom</td>
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<tr>
<td>5:00-7:00</td>
<td>CMH2050</td>
<td>FRI 500</td>
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</table>

Office Hour and Class Schedule for CHM2050:

**Office Hours:**

- **E-3:** 9:20-10:10
- **E-2:** 8:20-9:10
- **E-1:** 7:20-8:10
- **F:** 6:15-7:05

**Zoom Meetings:**

- Monday: Melble
- Tuesday: Zoom
- Wednesday: Venda
- Thursday: Venda
- Friday: Nick

**Zoom Rooms:**

- Shayer
- Boardroom
- A
- CEB318A
- Speaker

**Comments:**

Zoom office hours will take place at https://my.zoom.us/meeting/66320318302.
Further Important Information:

1. **Overview and Goals:** CHM2050 is the first in a dual course series introducing the student to General Chemistry. The course is designed for chemistry and biochemistry majors and will emphasize topics that will benefit the students in higher level chemistry coursework. The goals of the course are to give an overview of basic chemistry, specifically atomic and molecular structure, stoichiometry, overview of chemical reactions, liquids and gases, thermochemistry, chemical kinetics, intermolecular forces, and colligative properties.

2. **Class Meeting Times:** The class meets in Flint Hall 50 during TR2–3 periods. This course does not have a recitation session. Given that we have two double-period blocks per week the 15 minute break will be handled as follows: Class will start 5 minutes later than the official start time, i.e., 8:35am instead of 8:30am. We will dismiss class 5 minutes earlier as well, i.e., 10:20am instead of 10:25am. In addition, there will be a 5 minute break in between which will be taken whenever the flow of the lecture/class activities allows. Please be on time for class to start at 8:35am!

3. **Majors Only:** The two sections of this course 205H (class #21756) and 205R (class #21757), are primarily for Chemistry and Biochemistry majors. This allows for a smaller classroom environment more conducive to an interactive learning environment. It also allows for Chemistry/Biochemistry students to get to know each other sooner. While we cover the same topics as the main CHM2045 sections there are a few important differences to note: We will focus on topics that are important to students who will take more advanced chemistry courses in the future. That means that electronic atomic structure will be discussed to a greater extent and Lewis structures will be practiced from day one. Less time will be spent on drills and more on modern applications of chemistry. We do not have a recitation session. However, example problems will be provided and solved in class. 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. No worksheets are used in our sections but relevant problems from the openstax textbook will be pointed out for voluntary self–study. Our class will use the ‘Learning Catalytics’ tool for in–class participation and pre–lecture activities. This course will have in–class exams. The exams differ from those encountered in CHM2045. We will not use multiple choice exams. Your exams will come exclusively from your instructor and deal with material covered in class including the assigned textbook reading, homework sets, practice problems, molecules of the day, etc.

4. **General Chemistry Learning Objectives:** The course will provide instruction in the basic concepts, theories, and fundamental terms of chemistry. At the very core of chemistry is the concept of the atom, its structure, and bonding interactions with other atoms. Understanding the atom provides a conceptual foundation for the many aspects of ‘macroscopic’ chemistry. Major scientific developments will be reviewed and their impacts on society, science, and the environment examined. Focus will be placed on the relevant processes that govern biological and physical systems. With what they learn students will be able to: (1) formulate empirically testable hypotheses relevant to the study of physical and life processes; (2) use logical reasoning skills through scientific criticism and argument; and (3) apply techniques of discovery and critical thinking to predict and evaluate outcomes of experiments. Upon successful completion of CHM2050 each student will:

- have a working knowledge of the basic concepts, theories, and fundamental terms of Chemistry that are outlined under 1), and understand the relevant processes that govern chemical systems;
- grasp the major scientific developments that have led to the current state–of–the–art in the field;
- be able to assess impacts Chemistry has on society, science, and the environment;
- be familiar with and capable of using the scientific method when discussing scientific facts as they relate to Chemistry;
- know how to formulate empirically testable hypotheses derived from the study of physical and chemical processes;
- use logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to predict and evaluate outcomes of experiments.

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. 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.

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2There are exceptions for students in other majors with a strong interest in Chemistry.
Homework problems may also include reading material, typically a topic 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.
- Participation points are available to students throughout the semester and can be earned during the lecture periods by answering “learning catalytics' questions (for more information see below item #11) and through pre-lecture ‘learning catalytics’ activities.
- Approximately 36 weekly office hours are offered by instructor and TAs, conveniently spread out over the whole week. 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.

5. Math Requirements: Students are expected to have a solid grasp of pre-calculus algebra and trigonometry and need to have college credit for MAC1147 on their record. Ideally, they should be co-registered for MAC2311 (Calculus I). 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/](http://www.wolframalpha.com/).

6. Scientific Graphing: Scientists communicate concepts and data (experimental and theoretical) using graphs. An important goal of the course is therefore for students to learn to interpret and generate scientific graphs effortlessly. Interpretation of relevant graphs will be an important part of homework and exam questions.

7. ALEKS Prep: Two percent of the course grade will be based on the ALEKS prep work (due Friday, Sept. 8). For more info please see [https://www.chem.ufl.edu/undergraduate/aleks/](https://www.chem.ufl.edu/undergraduate/aleks/).

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<th>% ALEKS completion</th>
<th>0 – 69%</th>
<th>70 – 79%</th>
<th>80 – 89%</th>
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<th>99 – 100%</th>
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<tr>
<td>% grade earned</td>
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<td>0.5%</td>
<td>1.0%</td>
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8. Exam Policies: Three during-term exams will be given (see schedule above). These exams will be 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 will have a duration of 120 minutes and take place in Flint 50 (our classroom) during the time the registrar has set for the final exam in this course. 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 card. 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. University examination and reading day policies can be found at: [https://catalog.ufl.edu/UGRD/academic-regulations/examination-policies-reading-days/](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/](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](https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencetext). If you must be absent for an exam due to a documented and approved conflict known in advance, you must e-mail your instructor (alex@chem.ufl.edu) 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, 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 by you or by 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.

Exam Grade Disputes: Any and all exam grade disputes must be dealt with within two weeks of the scheduled exam date.

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.

9. Canvas: Access your Canvas e–learning account by clicking on the ‘Log–In to E–Learning’ link on the web site, https://elearning.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. Please make sure to e–mail your instructor only through the Canvas message app. There may be assignments on Canvas that need to be completed before class. If you experience technical problems when using Canvas, please contact the UFIT helpdesk (http://helpdesk.ufl.edu/; 352–392–4357 M–F from 8:00am till 5:00pm, email helpdesk@ufl.edu).

10. 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 on Friday morning of the following week by 10:00am, submitted on Canvas. During the weeks when Friday is a holiday the HW will be due that week on Thursday night at 10pm. This means that you have a little more than a week to complete each set. Late HW policy: HW is late if it is not delivered by the 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 course grade and will be better prepared to deal with problems on exams. HW problems come from many different sources, including the instructor’s own personal list of problems. Since these will be the hardest problems you will encounter in CHM2050, 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! You need to understand how to solve these problems. One way to test your understanding is to explain the solution for a problem to someone else.

11. Participation Grade: Participation points (up to 5% of your total grade) will be earned through active participation using ‘learning catalytics.’ 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 (see further explanation below under #12). There will also be learning catalytics pre–lecture assignments which will be due before class starts. They pertain to the reading assignments (see schedule on page 2) and will typically be available a full day before a lecture. Please note that the total LC points that can be achieved will only be known by the end of the semester. To achieve 100% of the participation grade (5% 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 score on LC problems will be prorated accordingly (see below unter 12).

12. Learning Catalytics (LC): In this course, we will use LC for your digital device to respond to the instructor's questions and earn valuable points toward your grade. 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 help desk 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.

LC questions will be assigned as the semester progresses and the total number is not yet known. A minimum of 75% of all available LC points are required to achieve 100% of the earnable participation points (50 for 5% of your final grade). If you finish the semester with less than 75% of the available LC points your participation points will be calculated by the formula x(50/75) 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 participation points amount to 60(50/75) = 40 which counts for 4.0% toward his final grade in the class.

13. 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 x 10 = 30 points or 3% of final grade). The “Jeopardy” games will be a valuable tool for your exam preparation.

14. Calculators: You must have your own scientific calculator. Calculators may be used on homework and exams but may not be shared. You may not use graphing calculators or any calculators that are capable of wire–less communication on exams. 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.
15. **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](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx).

16. **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 (or corresponding chapters in comparable textbooks) and work on pre-lecture learning catalytics problems before coming to class. 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 TA's office hours, talk to other students, compare notes, form a study group, consult other textbooks, etc.

17. **Study Groups:** It is highly encouraged to form study groups and meet with them on a weekly basis to discuss course material and to prepare for exams. In this course it is permissible to work on HW assignments together with your study partners. However, you are responsible to fully understand your own work—out HW submissions and may not just copy someone else’s.

18. **Office Hours:** The instructor, one graduate TA, and 17 undergraduate student TAs offer a total of 38 office hours spread over the whole week. The detailed times and locations are listed on the first page of this syllabus and the table on the third page. This is time we set aside for you. Take advantage of it. Please note that the instructor and all TAs are available to help students in any of the two sections. You are not limited to only the TAs assigned to your team. The zoom link to office hours is: [https://ufl.zoom.us/meeting/96320318806](https://ufl.zoom.us/meeting/96320318806). Please authenticate yourself with your gatorlink credentials by choosing "Sign in with SSO."

19. **Online Course Evaluation:** 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://gatorevalu.aa.ufl.edu/students/](https://gatorevalu.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/](https://ufl.bluera.com/ufl/). Summaries of UF course evaluation results are available to students at [https://gatorevalu.aa.ufl.edu/public-results/](https://gatorevalu.aa.ufl.edu/public-results/).

20. **Students with Disabilities:** Students with disabilities requesting accommodation should first register with the Disability Resource Center (352–392–8565, [https://disability.ufl.edu/](https://disability.ufl.edu/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. The student is responsible for scheduling the exam dates with the DRC. Students with disabilities should follow this procedure as early as possible.

21. **Counseling Services:** The University of Florida provides counseling services for students, staff, and faculty. See [https://counseling.ufl.edu/](https://counseling.ufl.edu/). If you or a friend are in distress, call 352–392–1575 (M–F, 8am–5pm), email umatter@ufl.edu, or walk in for emergency consultation during service hours (9:00 am – 4:00 pm) at 401 Peabody Hall. For other hours or weekends, call the Alachua County Crisis Center, 352–264–6789. For sexual assault recovery services call the Student Health Care Center at 352–392–1161. For life-threatening emergencies always call 911.

22. **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/](https://police.ufl.edu/).
   - UF Library: [https://uflib.ufl.edu/find/ask/](https://uflib.ufl.edu/find/ask/), where you can find various ways to receive assistance with respect to using the libraries or finding resources.
   - UF Training Center: located in the Reitz Union, Suite 1300, 352–392–1601, and provides career assistance and counseling. Refer to [https://counseling.ufl.edu/](https://counseling.ufl.edu/) for further info. The Training Center is located in 1317 Turlington Hall and provides students with tutoring services and counseling regarding general study skills. Refer to [https://academicresources.clas.ufl.edu/](https://academicresources.clas.ufl.edu/) or call 352–392–2010 for further info. It may also provide employment opportunities for well-qualified students to work as tutors.
   - The Writing Studio is located at 2215 Turlington Hall, 352-846-1138, and provides help with brainstorming, formatting, and writing papers, see: [https://writing.ufl.edu/writing-studio/](https://writing.ufl.edu/writing-studio/).
   - The Ombuds Office is located at 31 Tigert Hall, 352-392-1308, and provides students assistance in resolving problems and conflicts that arise in the course of interacting with the University of Florida. By considering problems in an unbiased way, the Ombuds works to achieve a fair resolution and works to protect the rights of all parties involved. For further information go to [https://www.ombuds.ufl.edu/](https://www.ombuds.ufl.edu/).
24. **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 lecture to make a phone call. Use your cell phone only for ‘learning catalytics’ activities while class is in session. Thank you!

25. **Group-Me:** The TAs will set up team group–me groups for easier communication among teams for their projects. The class is encouraged to set up a whole–class group–me as well.

26. **In–Class Recordings:** Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor–led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

27. **Honor Code:** This class will operate under the policies of the student honor code. 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. 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. 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. For more information regarding the Student Honor Code, please see: [https://sccr.dso.ufl.edu/process/student-conduct-code/](https://sccr.dso.ufl.edu/process/student-conduct-code/).

28. **Disclaimer:** This syllabus represents our 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)