



**CHEM 105: Chemical Principles**  
**Fall 2021**  
**Loyola University Chicago**

### Course Description

This course is the first in a sequence of two general chemistry courses for chemistry and biochemistry majors. It includes the following topics: introduction to chemistry, atomic structure, periodic properties, characteristics of bonding and properties of molecules, descriptions and relationships of chemical reactions, thermochemistry, and states of matter. Historical and current developments in chemistry as well as real-world problems that chemists address are incorporated into the course.

The emphasis of this course is on understanding, prediction, investigation, explanation and evaluation over memorization. This means that students must foster their problem solving skills, ability to make claims based on evidence, and skills of effective communication of scientific results. It is not enough to know *what* happens in chemistry, the student must also be able to explain *why* it happens.

### Course Prerequisites

Satisfactory performance on the Loyola math proficiency exam, or successful completion of MATH 117. A strong high school chemistry background is also highly recommended.

### Required Resources

- (1) OpenStax Chemistry, Atoms First 2e. Web-only, digital, or printed version. <https://openstax.org/details/books/chemistry-atoms-first-2e?Book%20details>
- (2) Moog, R.S. & Farrell, J.J. (2017). *Chemistry: A Guided Inquiry, 7<sup>th</sup> ed.* John Wiley & Sons, Inc. ISBN [978-1-119-62595-7](#) (print) or [978-1-119-29950-9](#) (etext).
- (3) Online homework: [ALEKS](#), see [Sakai](#) for additional information and recommendations
- (4) Custom laboratory manual, *will be shared in class.*
- (5) Bound edge composition notebook, safety goggles that meet ANSI Z87.1 standards (will be provided in lab), and laboratory coat (can purchase at the bookstore).
- (6) Electronic resources, e.g., [Loyola Sakai](#) & [email](#), Gradescope
- (7) Scientific calculator

### Class Meeting Times and Locations

CHEM 105-002 (Discussion)	Tuesdays, 9:45-10:35 a.m.	Dumbach 120
CHEM 105-003 (Discussion)	Tuesdays, 11:30-12:20 p.m.	Flanner 105
CHEM 105-001 (Lecture)	Tues./Thurs., 1:15-2:30 p.m.	Flanner Auditorium
CHEM 105-004 (Lab)	Wednesdays, 11:30am-2:15pm	Flanner 305
CHEM 105-005 (Lab)	Wednesdays, 2:50-5:35 p.m.	Flanner 305
CHEM 105-006 (Lab)	Wednesdays, 8:15-11:00 a.m.	Flanner 305

## The Team Supporting Your Learning

	Office Hours	Office	Phone (office)	Phone (mobile)	Email
<i>Patrick L. Daubenmire, Ph.D.</i> , Associate Professor					
	Wed., 2-3 pm & by appt.	FH 415	773.508.8248	630.336.4180	pdauben@luc.edu
<i>Sandra Helquist, Ph.D.</i> , Senior Lecturer					
	TBA	FH 200B	773.508.3139		shelquist@luc.edu
, Supplemental Student Instructor					
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<i>Andrew Basner, Ph.D.</i> , Laboratory Instructor					
	Mon 1-3pm	FH 428	773.508.2598		abasner@luc.edu
<i>Jaina Bhayani</i> , Teaching Assistant					
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### Additional Content, Copyright & Intellectual Property Statement

By default, students may not share any course content outside the class without the informed written consent of the owner of that content. This includes any additional recordings posted by students, materials provided by the instructor, and publisher-provided materials. For example, lectures, quiz/exam questions, book figures/slides, and videos may not be shared online outside the class. In some cases, copyright/IP violations may overlap with breaches of academic integrity. Remember that obtaining consent to share materials is an active process.

## Connection to the “Hungers” of Loyola University’s Transformative Education

This course seeks to assist each student in fostering hungers associated with the University’s model of transformative education<sup>1</sup>. The study of introductory chemistry can assist in development of the specific hungers below:

- *A Hunger for Integrated Knowledge* – by building an understanding of a variety of chemical concepts and applying them to problems in many contexts.
- *A Hunger for a Moral Compass* – by examining the variables, benefits, and detriments that exist at the interface of applied science, technology, environment, and society.
- *A Hunger for a Global Paradigm* – by understanding that chemistry is a human endeavor and it resides in the tension between helping and harming life.

## Primary Instructional Format – Process Oriented Guided Inquiry Learning (POGIL)

This course will not follow a traditional lecture format for delivery of course content and skill development. Instead this course will capitalize on students’ current prevailing ideas and thoughts about sets of data or presented models. Then, through guided questions about the presented information, students, working in small groups, discuss ideas and come to consensus about answers to questions. These ideas are further developed in questions that force application of the agreed upon concepts. The instructor is the guide on this journey, pointing out areas that are particularly relevant or that may need attention, and redirecting students when necessary. This format is designed based on the idea that knowledge cannot be directly transmitted from one person to another. Instead, knowledge must be built by the learner his or herself based on their own experiences and in dialog and discussion with others.

Four key ideas about learning have emerged from current research about how people learn. These include:

1. Constructing our own understanding based on our prior knowledge, experiences, skills, attitudes, and beliefs.
2. Following a learning cycle of exploration, concept formation, and application.
3. Discussing and interacting with others.
4. Reflecting on progress and assessing performance.

All of these ideas are incorporated into the design of POGIL in order to help students learn both discipline content and key process skills simultaneously, POGIL is built on this research base with the principles that most students learn best when they are:

1. Engaged and thinking in the classroom and laboratory.
2. Drawing conclusions by analyzing data, models, or examples and by discussing ideas.
3. Working together in self-managed teams to understand concepts and to solve problems.
4. Reflecting on what they have learned and on improving their performance.

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<sup>1</sup><http://www.luc.edu/transformativeed/>

5. Interacting with an instructor as a facilitator of learning and peer as collaborating in building understanding of the chemistry content.

To support this research-based learning environment, POGIL uses learning teams, guided-inquiry activities to develop understanding, questions to promote critical and analytical thinking, problem solving, reporting, metacognition, and individual responsibility. These components are the tools for developing process skills and the mastery of discipline content and will use a blend of venues between face-to-face and online environments.

You will work together in learning teams through a series of ChemActivities (CA) modules. The modules are designed to help you acquire knowledge and develop understanding through guided inquiry - examining data, models, or examples followed by responding to critical thinking questions (CTQ). Generally, data are presented before a theoretical explanation, whereby the CTQ lead the student through the thought processes which results in the building of a certain theoretical model. This is what makes these modules guided-inquiry. Exercises & Problems are included to reinforce the concepts being presented.

For the ChemActivities (CA) modules, you will be placed into groups of 3 or 4 students with the following designations within each group: Manager, Recorder, Technician, & Presenter. These roles you may have throughout the semester when working in groups include:

- ❖ *Manager*: The student in this role ensures that the group is functioning efficiently and progressing within the time frame set by the instructor. This student is not a supervisor, but a full participant. Additionally, this student monitors the participation of all group members to make sure all ideas have been heard.
- ❖ *Recorder*: The student in this role transcribes the agreed upon responses of the group to questions and problems. The recorder is not solely responsible for doing the work, but is responsible for accurately recording the results of the group's work. There will be times during the semester when the group's answer(s) to certain questions will be collected. The recorder submits these responses.
- ❖ *Technician*: The student in this role primarily handles calculations and the management of equipment for the group. If special operating instructions are needed for an instrument during an activity, the technician is the point person for these applications and will be trained as necessary.
- ❖ *Presenter*: The student in this role represents the group during all class discussions or during inter-group interactions. Similarly to the recorder, the presenter's responses should accurately reflect the results of the work of the group.

### **Supplemental Instruction (SI) Availability**

There are Supplemental Instruction (SI) study sessions available for this course. SI sessions are led by an SI leader, who is a student that has recently excelled in the course. Session attendance is open to all and is voluntary, but extremely beneficial for those who attend weekly. Times and locations for the SI session can be found here: [www.luc.edu/tutoring](http://www.luc.edu/tutoring). Students who attend these interactive sessions find themselves working with peers as they compare notes, demonstrate and discuss pertinent problems and concepts, and share study and test-taking strategies. Research shows students whom regularly attend sessions have higher grades at the end-of-the-semester and more deeply understand course concepts than those who do not. Students are asked to arrive with their Loyola ID, lecture notes, and textbook.

### **Academic Honesty**

All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, which can be viewed at: <http://www.luc.edu/cas/advising/academicintegritystatement/>

A basic mission of a university is to search for and to communicate the truth as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty.

Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism, copying another student's work, and submitting false documents.

Any instance of dishonesty (including those detailed on the website provided above or in this syllabus) will be reported to The Chair of The Department of Chemistry & Biochemistry who will decide what the next steps may be in accordance with University policy. At a minimum, evidence of dishonesty will result in a score of zero on the item.

### **Accessibility**

The Student Accessibility Center (SAC, 773.508.3700), <http://www.luc.edu/sac>, has the mission "to support, service, and empower Loyola University Chicago students with disabilities" and to "Partner with faculty and staff to provide opportunities for collaboration, professional development, personal growth, and staff interaction, as they relate to students with disabilities." Please direct all questions concerning accommodations of disabilities to the SAC. Academic accommodations afforded to students require documentation and review. The SAC will issue accommodation letters for registered students. Students with testing accommodations will submit all test requests via [Accommodate](#) at least seven days in advance. If students' accommodations involve attendance or deadlines, instructors and students will jointly

complete and execute an Agreement Form articulating their terms. See <https://www.luc.edu/sac/faculty/facilitatingaccommodations/> for guidance about implementing various kinds of accommodations in a way that is appropriate. The Student Accessibility Center stands ready to work with you.

### **Harassment (Bias Reporting)**

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias.

In order to uphold our mission of being Chicago's Jesuit Catholic University-- a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: <http://webapps.luc.edu/biasreporting/>

### **Safety**

Students must adhere to proper safety protocols and practices when conducting classroom activities and laboratory investigations. A separate agreement describing these practices must be signed before a student may participate in coursework.

### **Classroom Masking Policy**

As a Departmental policy, even in the event the University relaxes its universal requirement for indoor mask-wearing during the Fall 2021 semester, it will remain a principle of this class section that, out of respect for the health of housemates and others in regular contact with members of our community, in this class we properly wear masks at all times (e.g. over nose and mouth).

### **Course Evaluation**

All of the following are required components of your course grade:

### **Laboratory Work**

Laboratory experiences and work are integrated with the lecture portion of this course. A detailed description of those activities for the semester will be shared in your first meetings of your laboratory sessions.

### **ALEKS**

Online, at [www.aleks.com](http://www.aleks.com), with additional information and tips posted on Sakai. At the end of the semester, your Overall ALEKS grade is calculated from: 50% Objectives +

5% Final Knowledge Check + 45% Pie Progress. Regular work (Learning topics in Objectives) is due twice per week at 11:59pm as a combination of pre- and post-lecture work. Assessments or “Knowledge Checks” are also included to help you retain course content throughout the entire semester. Chemistry is a complex and challenging subject, so we have chosen ALEKS to make sure you master the basic, fundamental concepts in the course to fully advance your personal educational and career goals. We have solid data that show this service can improve mastery and retention, particularly for students who would otherwise have difficulty passing. What you must do is decide to trust the system when it assigns you work: trust that this is indeed the work you should be doing now, and that doing it diligently will build the essential mastery you need to succeed in chemistry as fast as possible. ALEKS will help you by finding out YOUR individual state of knowledge, and then tutoring you in only the topics on which YOU need to work. The list of topics to be mastered has been set for the course, and it is the same for everybody. But YOUR individual path is going to be unique to you. We will drop your lowest 2 Objective scores from the overall grade calculation at the end of the semester to account for the instances when you may not be able to finish an assignment by the deadline.

### **Group Work**

Participation, group responses and reports will be an important part of the class. This work will be a combination of individual effort and group work, completed in small groups (assigned by instructor). Students must be present during class sessions in order to receive credit for these assignments. Each group will submit a Report for each assigned activity, and Reports are graded based on completion. Many, but not all, of the Reports will come from POGIL activities.

Group Quiz content will include multiple-choice questions (MCQs) at the level of the exams and challenging free-response problems at the level of the Mastery Objectives in order to help you prepare for the grading standards upon which you will be tested individually. The purpose of working challenging problems as a group is to help you learn via cooperation, communication, and support among your classmates as you push the limits of your knowledge. Each group submits one copy of their work for each assignment. Participating group members will receive quiz completion credit if the work they submit includes a meaningful attempt at completing all of the problems. At least three times during the semester each group will be asked to prepare an answer key to be posted for the entire class. Participating group members will receive quiz key credit if the answer key includes completely correct work along with explanations of the assigned problems.

### **MCQ Exams**

Three midterms and a final exam, completed individually. Allowed resources will be listed for each exam. Exams will consist of multiple-choice questions meant to test how well you understand and can apply the essential course concepts. Midterm exams focus on the recent material, including cumulative concepts, and the final exam will be comprehensive. Midterms are scheduled for the **September 09, October 19, November 16, and December 09**. An email will be sent before each exam listing all procedures & requirements. We will automatically calculate your grade using the higher

weighted percentage between two options listed. If you miss a midterm for any reason, Option 2 will be used.

Option 1: Count all 3 midterms at 20% each + final exam, 40%

Option 2: Count the best 2 midterms at 25% each + final exam, 50%

### **Mastery Objectives**

These are detailed Objectives (MO's) for the course that will be tested Individually in a Mastery format – you will see this format on your group quizzes. The purpose of the mastery-based system is to give you multiple opportunities to demonstrate your higher-level skills of applying and analyzing chemistry concepts. These MO's will challenge you to go beyond memorization of facts and processes and transfer your understanding of essential course concepts to new scenarios, which is why you will have options to revise work and reattempt MO's for Mastery credit. Some of the MO's are designated as Foundational for this course. The Foundational MO's form the base upon which you will build your knowledge in chemistry and related fields, in this course and beyond. Each round of testing on these objectives, typically 3 MO's per round, will be followed by opportunities for revision of work by the specified deadline. Revised work that is complete and correct by the deadline will receive Proficiency credit. It is expected that work that does not earn Mastery credit during testing will be revised as a pre-requisite for reattempting an MO in a later round of testing. If a successfully revised MO is reattempted and mastered during a later round of testing, the Mastery credit replaces the Proficiency credit previously earned: in other words, you cannot count both Proficiency and Mastery credit on the same MO toward your grade. Rounds of testing are scheduled for **September 09, October 19, November 16, and December 09**, with an additional round scheduled during the final exam period. Specific MO dates and timing will be announced at least one week in advance. All procedures, allowed resources and requirements will be posted before each round of testing.

### **Course Grading System Design**

There are three basic principles that we have used to design the grading system for this course. These are for you to:

1. Understand what the standards and requirements are for each letter grade so that you can choose what level of academic achievement to pursue in this course. We encourage each of you to strive for high achievement because we believe in the potential of all students to learn and improve their abilities in chemistry.
2. Expect a challenging but flexible learning environment. The standards for demonstrating your Mastery of the course material are high in each area, but the methods for meeting the standards are designed to give you chances to revise and improve the quality of your work throughout the semester.
3. Learn from mistakes. Deep, connected learning involves hard work and reflection on your progress. Chemistry is a cumulative subject where the new topics build on prior knowledge and this system is designed for cycles of learning.

## Standards

The standards for each letter grade are listed here according to all required course components, listed in columns. You must meet or exceed all of the standards listed to earn the corresponding letter grade: standards are not averaged across components. These lists are intended for complete transparency: you do not need to do any extra work to figure out what is required for any grade, and we will revisit the standards and expectations after the early rounds of testing to help you gauge your progress in the course. Grades are only based on the criteria listed in the syllabus: no substitutions, and no additions. Descriptions of the components are found on the preceding pages.

### A Standards

Laboratory Work:  $\geq 90\%$  total  
ALEKS:  $\geq 95\%$  Overall Grade  
100% Pie Progress  
Final Knowledge Check  
Group Work:  $\geq 90\%$  reports  
 $\geq 9$  quiz completions  
 $\geq 3$  quiz keys  
MCQ Exams:  $\geq 90\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational: 6  
Total:  $\geq 11 + 1$

### B Standards

Laboratory Work:  $\geq 80\%$  total  
ALEKS:  $\geq 80\%$  Overall Grade  
 $\geq 85\%$  Pie Progress  
Final Knowledge Check  
Group Work:  $\geq 80\%$  reports  
 $\geq 8$  quiz completions  
 $\geq 2$  quiz keys  
MCQ Exams:  $\geq 75\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 5 + 1$   
Total:  $\geq 8 + 2$

### C Standards

Laboratory Work:  $\geq 70\%$  total  
ALEKS:  $\geq 70\%$  Overall Grade  
 $\geq 75\%$  Pie Progress  
Group Work:  $\geq 70\%$  reports  
 $\geq 7$  quiz completions  
 $\geq 1$  quiz key  
MCQ Exams:  $\geq 60\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 4 + 2$   
Total:  $\geq 5 + 4$

### A- Standards

Laboratory Work:  $\geq 90\%$  total  
ALEKS:  $\geq 90\%$  Overall Grade  
 $\geq 95\%$  Pie Progress  
Final Knowledge Check  
Group Work:  $\geq 90\%$  reports  
 $\geq 9$  quiz completions  
 $\geq 3$  quiz keys  
MCQ Exams:  $\geq 85\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational: 6  
Total:  $\geq 10 + 1$

### B- Standards

Laboratory Work:  $\geq 80\%$  total  
ALEKS:  $\geq 80\%$  Overall Grade  
 $\geq 85\%$  Pie Progress  
Final Knowledge Check  
Group Work:  $\geq 80\%$  reports  
 $\geq 8$  quiz completions  
 $\geq 2$  quiz keys  
MCQ Exams:  $\geq 70\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 5 + 1$   
Total:  $\geq 7 + 3$

### C- Standards

Laboratory Work:  $\geq 70\%$  total  
ALEKS:  $\geq 70\%$  Overall Grade  
 $\geq 75\%$  Pie Progress  
Group Work:  $\geq 70\%$  reports  
 $\geq 7$  quiz completions  
 $\geq 1$  quiz key  
MCQ Exams:  $\geq 55\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 4 + 1$   
Total:  $\geq 4 + 4$

### B+ Standards

Laboratory Work:  $\geq 80\%$  total  
ALEKS:  $\geq 80\%$  Overall Grade  
 $\geq 85\%$  Pie Progress  
Final Knowledge Check  
Group Work:  $\geq 80\%$  reports  
 $\geq 8$  quiz completions  
 $\geq 2$  quiz keys  
MCQ Exams:  $\geq 80\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 5 + 1$   
Total:  $\geq 9 + 2$

### C+ Standards

Laboratory Work:  $\geq 70\%$  total  
ALEKS:  $\geq 70\%$  Overall Grade  
 $\geq 75\%$  Pie Progress  
Group Work:  $\geq 70\%$  reports  
 $\geq 7$  quiz completions  
 $\geq 1$  quiz key  
MCQ Exams:  $\geq 65\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 4 + 2$   
Total:  $\geq 6 + 3$

### D Standards

Laboratory Work:  $\geq 55\%$  total  
ALEKS:  $\geq 55\%$  Overall Grade  
Group Work:  $\geq 55\%$  reports  
 $\geq 5$  quiz completions  
MCQ Exams:  $\geq 45\%$  (weighted)  
MO's: Mastery + Proficiency  
Foundational:  $\geq 2 + 1$   
Total:  $\geq 2 + 2$

Note: a student who fails to meet the standards for a grade of D will receive a grade of F for the course.



## Posting of Grades

Final course grades at the end of the semester are posted only LOCUS. Grades are never sent via email. ALEKS scores are automatically recorded in the ALEKS Gradebook for that system. Scores for all other required components will be made available on Sakai. Each student will see an estimated midterm grade in LOCUS before the withdraw deadline.

Missed or late assignments may not be accepted. Instructors may ask for documentation or other verification.

## Final Exam

The University sets the schedule for all final exams, and has posted the schedule for Fall 2021: [link to schedule](#). The final will be held on Friday December 17<sup>th</sup>, 1:00pm. There will be no make-up final exams given under any circumstance, and the exam will not be given early, either.

Instructors may not reschedule final exams for a class for another day and/or time during the final exam period. There can be no divergence from the posted schedule of dates for final exams. Individual students who have four (4) final examinations scheduled for the same date may request to have one of those exams rescheduled. If a student reports having four final examinations scheduled for the same date, students should be directed to e-mail a petition to Adam Patricoski, Assistant Dean for Student Academic Affairs, CAS Dean's Office ([apatricoski@luc.edu](mailto:apatricoski@luc.edu)).

## Loyola University Absence Policy for Students in Co-Curricular Activities:

Students missing classes while representing Loyola University Chicago in an official capacity (e.g. intercollegiate athletics, debate team, model government organization) shall be allowed by the faculty member of record to make up any assignments and to receive notes or other written information distributed in the missed classes. Students should discuss with faculty the potential consequences of missing lectures and the ways in which they can be remedied. Students must provide their instructors with proper documentation (develop standard form on web) describing the reason for and date of the absence. This documentation must be signed by an appropriate faculty or staff member, and it must be provided as far in advance of the absence as possible. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to give the student the opportunity to take the examination at another time. (<https://www.luc.edu/athleteadvising/attendance.shtml>)

## Accommodations for Religious Reasons

If you have observances of religious holidays that will cause you to miss class or otherwise effect your performance in the class you must alert the instructor **within 10 calendar days of the first class meeting of the semester** to request special accommodations, which will be handled on a case by case basis.

### **Other scheduled items**

- A link to the official Loyola calendar can be found here: <https://www.luc.edu/academics/schedules/>
- The Withdraw deadline for the semester is on Friday November 5<sup>th</sup>.
- Loyola is using SmartEvals to provide instructor & course feedback. [OIE](#) will send emails near the end of the term.

### **Practices for Success**

Supporting claims with evidence, making applications, solving and analyzing problems, and using chemical principles to explain phenomena are critical skills in the field of chemistry. The development of these skills is not without some frustration, but it carries the reward of deepening one's ability to think critically and solve problems in any field. To do this, one may have to assess, evaluate, and possibly revise approaches to learning. The use of targeted, guiding questions, regularly scheduled work, and strategic study plans can greatly assist the learning of chemistry. With such a focus, hopefully any frustration will quickly turn to appreciation and fascination for the relevance and connectedness of chemistry in your life and within the world around you. Solving and analyzing problems is the most important feature of this work. If, at any time, you need assistance framing such plans for your work in chemistry, please do not hesitate to ask the instructor.

### **Norms of Course Proceedings**

The classroom is to be a safe place to question and explore ideas. Student and teacher voices are important to this work. Collegial disagreement can be a healthy part of this process, but must always include respect for all members of the class.

Course activities will be designed to help students reach the goal of learning chemistry content and developing thinking skills. This will more often be driven by the use of data and reasoning to discover concepts and solutions rather than the identification and exchange of chemical facts and algorithms.

Class sessions will begin and end on time. All students should attend class regularly and participate in class discussions. Multiple absences could affect one's ability to learn chemistry during this semester. Anticipated absences should be discussed with the instructors in the first two weeks of the semester. Proper documents may be requested to verify the reason for any absence.

Cell phones and the use of texting devices should be used in appropriate and professional manner. These devices should not distract other participants in the course.

Email messages among students in the course should also be respectful, appropriate, and professional. Response time to email messages is acceptable within 24-48 hours.

Completed course assignments must be submitted by the time specified on the due date. Late assignments may not be accepted.

This is a co-taught course, so please email both Drs. Daubenmire and Helquist for questions related to lecture course policies, and email Dr. Basner with respect to lab proceedings.

### **Course Repeat Rule**

Effective with the Fall 2017 semester, students are allowed only THREE attempts to pass Chemistry courses with a C- or better grade. The three attempts include withdrawals (W). After the second attempt, the student must secure approval for a third attempt. Students must come to the Chemistry Department, fill out a permission to register form or print it from the Department of Chemistry & Biochemistry website: <http://www.luc.edu/chemistry/forms/> and personally meet and obtain a signature from either the Undergraduate Program Director, Assistant Chairperson, or Chairperson in Chemistry. A copy of this form is then taken to your Academic Advisor in Sullivan to secure final permission for the attempt.

### **Privacy Statement**

Assuring privacy among faculty and students engaged in online and face-to-face instructional activities helps promote open and robust conversations and mitigates concerns that comments made within the context of the class will be shared beyond the classroom. As such, recordings of instructional activities occurring in online or face-to-face classes may be used solely for internal class purposes by the faculty member and students registered for the course, and only during the period in which the course is offered. Students will be informed of such recordings by a statement in the syllabus for the course in which they will be recorded. Instructors who wish to make subsequent use of recordings that include student activity may do so only with informed written consent of the students involved or if all student activity is removed from the recording. Recordings including student activity that have been initiated by the instructor may be retained by the instructor only for individual use.