



# Chemistry 102, General Chemistry B Lecture/Disc

## Summer 2020 Syllabus

**Chem 102-006, General Chemistry B Lecture/Disc (3 credit hours)**

**Summer Session II: June 29<sup>th</sup> – August 7<sup>th</sup>, 2020**

**Location: ONLINE**

**Prerequisite:** Chem 101 or Chem 105 and Math 118

**Lecture Location is ONLINE; all due dates, meeting times, exam times are Central Time Zone. Be mindful of this. Due dates/times are not adjusted for students in different time zones, no exceptions.**

**Course Meeting Times:** This course has both synchronous (real-time, virtual in ZOOM) and asynchronous (pre-recorded lectures, independent videos, Mastering Chemistry Homework, other activities) components. It is the student's responsibility to pay attention to all information regarding the course. As a student enrolled in the course, you agree to abide by, follow, and complete all course aspects including rules, requirements, class attendance, discussions, assignments, homework, quizzes/tests/exams, due dates, and other. This course requires your full commitment. This course is a combined lecture and discussion; the length of the meeting times reflects this.

- **Synchronous sessions in ZOOM: Tuesdays & Thursdays 9:00-11:40am (Central Time Zone)**  
The [ZOOM link](#) (meeting ID is 977 2264 9571) is accessed from the ZOOM tool in Sakai. You must log in to Sakai to join. Make sure your ZOOM name is first Full Name and Last Name. Odd or not recognizable usernames will not be allowed into ZOOM to combat any unauthorized access. Be mindful of this! The "waiting room" feature is utilized before access is granted into our ZOOM.
- **Asynchronous session (not meeting in real-time): Wednesdays 9:00-11:40am (Central Time Zone)** In the asynchronous session there will be lecture, discussion, or homework material assigned to students and this work is to be completed by the student. The lecture material in the asynchronous sessions is not covered in the Tues/Thurs synchronous sessions.

**Lecturer:** Dr. Katrina Binaku

**Office Hours:** [Mondays 4-5pm](#), [Thursdays 12-1pm](#), and by a scheduled ZOOM appointment.

**Office Hours Location:** ZOOM

**Email:** [kbinaku@luc.edu](mailto:kbinaku@luc.edu)

**Email Etiquette:** When sending emails please put Chem 102-006 in the subject line or there will be a delay in response time. Weekday emails to Dr. Binaku will get a response within a couple of hours. Weekday emails after 8:00pm may not be replied to until the following morning; weekday emails before 8:00am may not get a response until 8:30am. Do not wait until the last minute to email with questions. Dr. Binaku checks email on weekends, but email response time might be longer [up to 24-hours].

Welcome to Chem 102. I look forward to having you in my course in summer session II and sharing valuable knowledge pertaining to General Chemistry. These 6-weeks are going to fly by! Check Loyola email & log-in to Sakai often; keep up with the homework and lecture materials. Read the entire syllabus to understand the course expectations. By enrolling in this course, you agree to abide by every single aspect of the syllabus.

## Course Description:

The Chem 102 course is a combined lecture and discussion, and a continuation of Chem 101. Specific areas addressed include concepts such as states of matter, properties of solutions, kinetics, chemical equilibrium, acid-base equilibrium, chemical thermodynamics, and electrochemistry. Use/read the textbook as a supplement to what is covered in class lectures. There is a lot of material and major points will be discussed during lecture; the textbook enhances the information presented. Historical and current events in chemistry, including real-world problems, may be mentioned. The emphasis of this course is understanding the material, not memorization.

## Course Goals & Outcomes for Students:

- Teach chemical equilibrium, acid/base chemistry, kinetics, thermodynamics, electrochemistry, and other chemical theory and connect it to real-world applications.
- Coach students to develop critical thinking skills and apply it to chemical theory.
- Acquaint students with data collection methods in the laboratory [titration set-up or kinetics experiments for example] that connect to lecture material.

## By completing Chem 102, students will be able to:

- Demonstrate proficiency in chemical equilibrium, acid/base chemistry, electrochemistry, and other chemical topics [covered this term] through completion of Mastering Chemistry homework problems, discussion work, and passing exam grades.
- Use a titration curve as a map to predict the composition of a reaction mixture at different regions of an acid-base titration in homework and on the applicable exam(s).
- Apply course concepts to applicable real-world scenarios given in various exam questions.

## Required Materials:

- 1) Desktop or Laptop computer. Computer must have a microphone and speakers to participate in synchronous sessions and office hours. If you do not have a desktop or laptop computer, you need to contact the Information Commons [extended loan equipment program](#) within the first day of summer session and arrange the resource. Lecturer is not responsible for coordinating resource for students nor responsible for the loaned device. Everything in this course requires a computer for access.
- 2) High-speed Internet access: Wired (ethernet cable) preferred but WI-FI is ok. Make sure WI-FI connection is reliable. Lecturer is not responsible if internet goes out when you are working on course items. Contact the Information Commons [extended loan equipment program](#) within the first day of summer session and arrange this resource if you do not have internet at home. Lecturer is not responsible for coordinating this resource for students nor responsible for the loaned device.
- 3) Scientific OR graphing calculator. Suggested model: CALC TI30XA SCIENTIF/STAT FRAC. A graphing calculator is o.k. too. Calculator should be able to do logarithmic (base 10 and base e), exponential, trigonometric functions. Cell phone/tablet/laptop or other electronic devices are NOT calculators; do not use them for calculations.
- 4) Choose one of these options. E-text is cheaper than a hard copy book. **You must purchase the Mastering Chemistry Access Card at a minimum, with or without the textbook.** Course ID for Mastering is binaku07085. You can use an older edition of the textbook if you would like to.
  - 1) Chemistry: The Central Science (14<sup>th</sup> Edition) by Brown, Lemay, Bursten, Murphy, Woodward (w/Mastering Chemistry Access Card) ISBN: 9780134292816**OR**
  - 2) e-textbook Chemistry: The Central Science (14<sup>th</sup> Edition) by Brown, Lemay, Bursten, Murphy, Woodward ISBN: 9780134554570 AND the Mastering Chemistry Access Card without textbook ISBN: 9780134551258**OR**
  - 3) Mastering Chemistry Access Card without textbook ISBN: 9780134551258

Note that I typically teach with PowerPoint slides that pull essential information from the textbook; therefore, the textbook is a secondary resource to the course content. Purchase the Mastering Chemistry access early so you do not miss deadlines on homework. Extensions are not granted!

- 5) [Sakai access](#) via the internet to review/complete course content, resources, review grades, etc. The course site is CHEM 102 006 SU20. If you are unfamiliar with Sakai, contact the Lecturer. By enrolling in this course, a student recognizes Sakai is essential and must learn all course tools.
- 6) [ZOOM video & web conferencing software](#) (free for LUC/summer students). UVID username and password may be required to access and download ZOOM, enter synchronous course meetings, office hours, etc. See [ZOOM participation instructions](#) supplied by the University for more info. Links to ZOOM for synchronous sessions and office hours are provided in this syllabus and in Sakai.
- 7) Panopto (free for LUC/summer students). One format of recorded course content is Panopto videos. You may be prompted to log in with UVID username and password to view the videos. Links to videos will be provided in Sakai PANOPTO tool.
- 8) Optional: Composition style notebook is optional and can be utilized for note taking or working out practice problems.
- 9) Periodic table. There is a cool one provided for free by the [Museum of Science & Industry](#).

If the textbook is purchased, one can read the textbook as supplement to what is covered in lectures. Major points are discussed in lecture via PowerPoints. The textbook enhances the material. Emphasis of this course is understanding the material, not memorization. Practicing concepts/calculations is shown to enhance retainment of knowledge; that is why the Mastering homework is a required part of the course. A variety of avenues are offered to explore and master content: synchronous & asynchronous lectures, Mastering Chemistry homework, students' outside independent review/studying, and course exams.

#### **Attendance/Instructional Format:**

- This course is 100% online. Online courses often require a different mindset when compared to classroom led courses face-to-face; they also offer students more independence for learning. We are all humans and this [online] is a new learning experience for many. Let's get through this together!
- It is the Lecturer's hope that there is 100% attendance in synchronous sessions (Tuesdays/Thursdays). As a student who signed up [and paid] for this course, make sure to get the most out of it. The lecturing portion of synchronous sessions will be recorded and can be re-watched if you do have to miss a session due to unforeseen circumstances. That way, students do not miss out on information presented. Other than office hours, the synchronous sessions are the only other "real-time" opportunity to ask questions, request specific practice problems, and communicate with Dr. Binaku in ZOOM. Emails work great, but they are not "real-time." There is a delay with an email reply. Keep that in mind.
- The asynchronous sessions on Wednesdays are designed as time set aside to review the previous day's work, complete homework, and watch Panopto lecture(s) for the day's new content. This is instead of meeting in ZOOM. Of course, you have access to homework and recorded Panopto 24/7 when they are open [homework has open/close dates] so you can choose when to work on the items. Use time wisely to complete the necessary work as a considerable amount of course work is asynchronous and has specific due dates that will not be adjusted. Due dates are set so the required work is spread out over the summer session and does not build up at the very end.
- Do note that I have "whiteboard/chalkboard" capabilities in ZOOM for lecture, discussion, and office hours. This is super cool because I can work on calculations with students in "real-time" or pre-record calculation work for specific types of problems. By me recording calculations in synchronous sessions will give students the ability to re-watch them all at any time and emphasize the thought process.
- See the course schedule on the last page of the syllabus. Note the chapters covered on synchronous and asynchronous days. Understand the demands of an accelerated summer course. Also, note the exam

days; exams will be given online on specific dates during a portion of the synchronous session time. Do not miss an exam. Lecturer may not give a make-up exam if a student misses an exam; if at the Lecturer's discretion a make-up exam is warranted for a proven unforeseen circumstance it will be an entirely different version of the exam and must be completed within 24 hours of the start time of the scheduled exam to avoid a failing exam grade of zero (0). If a student misses more than one exam or misses multiple homework items, the Lecturer may file a BCT Report for wellness check and contact the student's academic advisor with concern for student performance and well-being. No make-up exams are offered for the final exam. A student who misses the scheduled final exam fails the course.

- Discussion sessions in the synchronous class time will be flexible in content. Lecturer welcomes students to ask questions about topics, calculations, theory. Lecturer may provide practice problems and split students into groups in the ZOOM Breakout Rooms to work together and solve problems. Lecturer may also demonstrate practice problems using ZOOM whiteboard/chalkboard feature. Discussions will not be held on exam dates; they will be held on most synchronous sessions.

### **Recording Policy & Course Content Policy:**

- ZOOM will be used to record/hold live synchronous sessions. Lecturer intends to only record the lecture portion(s), but as a student in this class, it is possible your participation in live class discussions may be recorded. The synchronous recordings will be made available only to students enrolled in the course, via Panopto, to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. All recordings will become unavailable to students in the class when the Sakai course is unpublished (i.e. shortly after the course ends, per the [Sakai administrative schedule](#)). Students who prefer to participate via audio only will be allowed to disable their video camera so only audio will be captured during recording. Lecturer will announce when recording starts so that students can turn their cameras off. Students are not allowed to record any aspect of the course.
- The use of all video recordings will be in keeping with the University Privacy Statement shown below: 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. Recordings are not shared outside of this course. The above bullet point states when live recordings will occur in this course (synchronous sessions). Recordings including student activity that have been initiated by the Lecturer may be retained by the Lecturer only for individual use.
- ZOOM chats are not private. Be mindful of what you type in the chat box when messaging other students and the Lecturer. Breakout Rooms are sometimes utilized too & are monitored by Lecturer.
- All activities pertaining to the course must be completed as an INDIVIDUAL. Any collaboration on course material and/or graded materials can constitute cheating. Failure of the course may result if an instance of copying or sharing answers to graded content is discovered by the Lecturer.
- **Course content is designed for use ONLY by students in this course. All materials are subject to privacy and copyright laws. Students are NOT allowed to share any course resources, Panopto, PowerPoints, homework/quiz/test/exam questions, documents, etc. with anyone nor post to any outside media. The Chem 102 syllabus and all course materials are NOT allowed for distribution outside of class nor outside of the University. Uploading, posting, copying, or sharing electronic or non-electronic Chem 102 materials outside of class [i.e. share sites] is NOT allowed. If discovered that a student completes such action, the Dean and University get notified immediately.**

- **Chegg, Course Hero, Reddit, among other webpages, are monitored by the Lecturer.** If any Chem 102 course content is posted on these sites or other, the Dean and University will be notified. Student(s) involved may fail the content the posted material pertains too and/or fail the course. Posting any course content online to facilitate getting answers from others is a form of cheating and will not be tolerated.

### **Course Repeat Rule:**

Effective as of 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 access it from the Department of Chemistry & Biochemistry website, 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.

### **Blanket Statement About “Technical Difficulties:”**

It is *strongly encouraged* that all required submissions to Sakai, completion of Mastering Chemistry Homework, use of electronic resources, opening course files, etc. be done on a reliable wired (ethernet) internet connection. WI-FI is perfectly o.k. if the connection is reliable. The internet user must determine the reliability of their WI-FI. Excuses of “technical difficulties” are generally not accepted as this syllabus is stating all students should use wired (ethernet) internet connection and/or ensure their WI-FI connection is reliable [not prone to outages]. Lecturer realizes that campus is closed, and University computer labs are not accessible. Even so, students should ensure their internet connection is reliable enough to complete an online course without interruption. If an outage arises, the Lecturer may ask for proof of the outage. The best advice the Lecturer can give is to NOT complete assignments at the last minute, to avoid glitches with internet, since every part of the course work needs reliable internet to submit. Lecturer is not responsible for technical difficulties of personal devices [phone, tablet, home/work/public wireless internet, or computer]; it is also understood that sometimes unforeseen things happen. It is best to always contact the Lecturer if there are legitimate difficulties. Do not submit items in Sakai using a cell phone or a tablet device.

### **Academic Integrity:**

The standard of academic integrity and personal honesty delineated in the [College of Arts & Sciences Statement on Academic Integrity](#) is expected of every student and will be enforced. Cheating can take many forms in a course, but the most common forms are copying data and answers to homework or exam questions, sharing files for homework, completing Sakai or Mastering Homework with others, etc. Findings of dishonest academic behavior are reported to the Chair of the Chemistry Department and to the Dean’s Office; it is also noted on an individual’s record. Copied answers to any graded course work will result in penalty for all students involved. Dr. Binaku encourages students to converse with each other about chemistry outside of the classroom. Virtual group study sessions and practicing end of chapter questions in the textbook with others is appropriate. There is a difference between sharing knowledge and cheating. The Mastering Homework must be completed individually; it is not group work. Exams will be online and are to be completed as individuals. There are ways to detect cheating in online exams. Copying others work and presenting that work as one’s own is an example of academic dishonesty. Cheating and plagiarism take many forms. Academic dishonesty during an exam can take many forms, including but not limited to, sharing materials with another student during the exam, etc. This list is not exhaustive but highlights several dishonest situations. If course materials are plagiarized or shared by students (current/past), no credit will be given for the work and all students involved are reported to the Dean. If any students see or find out that others in this course or other summer session II courses are cheating, you can anonymously forward me that information at any point during the summer session.

### **Student Accessibility Center (SAC) Policy:**

If you have a documented disability and wish to discuss academic accommodations, discuss this with the Lecturer via ZOOM via Breakout Room as soon as possible, ideally the first week of summer session. The Coordinator of Student Accessibility Center (SAC) is in Sullivan Center and must be contacted independently by a student. Necessary accommodations will be made for students with disabilities who procure a SAC letter. However, to receive any accommodations self-disclosure, proper documentation, and registration with the SAC office at Loyola University Chicago is required. Accommodations cannot be made until the Lecturer receives proper documentation, in a timely manner. Furthermore, accommodations are not retro-active and begin only once appropriate documentation has been received by the Lecturer in a timely manner. Only those accommodations that are specifically listed in the SAC letter will be provided. If an accommodation letter suggests the Testing Center be utilized to take an exam, remember the University is not open so that cannot be facilitated. Read [SAC Policies and Procedures](#).

### **Smart Evals:**

Feedback on the course is important so that Lecturer can gain insight into how to improve the course, the teaching style, and so the department can learn how best to shape the curriculum for future semesters. Students are welcome to email the Lecturer at any point in summer session to voice feedback. Towards the end of the summer session, students will receive an email from the Office of Institutional Effectiveness with a reminder to provide feedback on the Chem 102 course. This office will send constant reminders during the open period of feedback until the evaluation has been completed. The evaluation is completely anonymous. When the results are released, no one will be able to tell which student provided individual feedback. Feedback is not released until after the semester is over, therefore any feedback given will not impact student grades.

### **Exams:**

There will be a total of two (2) ninety-minute exams given and one (1) cumulative final exam for 2.5 hours. Exams #1 and 2 are each worth 150 points. The class will meet in ZOOM for instructions promptly at 9:00 am on the day of the exams; then the exam will open in Sakai and is timed for 90-minutes and students **MUST** stay in ZOOM while the exam is being taken. Student who are late to class and/or late to opening the exam lose time, extended time for late students is not granted. **Students must take all exams on the assigned dates noted in the syllabus. Plan ahead and make sure exam dates are noted.** If a student misses Exam #1 or #2, the student earns 0 out of 150 points. The Lecturer has the discretion on whether to offer a make-up exam or not. If a make-up exam is granted, it will be a different exam version and must be completed within 24-hours of the original exam day/time. If a second exam is missed, a make-up is not offered and the student cannot pass the course and will be reported to the University through BCT Report and the student's academic advisor. **The final exam is cumulative. No make-up exams are granted for the final exam under any circumstances!** Students are not allowed to take the final exam early. If a student does not show up in ZOOM on final exam day at 9:00am [Thursday, August 6, 2020] to take the final exam in Sakai, the student receives a zero (0) for the final exam and fails the course automatically. There is no exception to this rule and *no* make-up final exam offered under ANY circumstances.

**All exams are open book and open note (the Internet is not allowed) unless otherwise specified.** Exams must be completed as an individual. Exams are timed to ensure that students are studying the material; if the exam is not finished in the 90-minutes allotted, it is graded as is. If a student relies too much on notes and does not finish the exam, it is graded as is and unanswered questions earn zeros (0). Do not waste time relying on class notes; make sure you know the material you are being tested on. Graphing and/or scientific calculators *are* allowed for use on exams. Phone use is not allowed. It is the student's responsibility that their calculator is in working order. A periodic table will be provided on an exam if needed.

Exams have a timer in Sakai; once the time is up, the exam closes and is no longer accessible. Unanswered questions earn a zero (0). Exams are graded as soon as reasonably possible. Students' exams and/or answer sheets are downloaded. Sakai records when a student opens an exam, how long a student takes on the exam, and the time the exam is submitted [if done faster than max. time]. Any discrepancies or questions about grading on exams (#1 and 2) must be discussed with the Lecturer no later than two business days after the graded exam & feedback has been returned to the student in Sakai. After two business days, no grading discrepancies or changes will be made on exams. No exceptions. The final exam will be graded the night of Thursday, August 6<sup>th</sup> and scores/feedback released. Students will have 24-hours to review & ask questions about the final exam score. After said time/date graded final exams are sealed and can no longer be viewed and the Sakai site will be unpublished. Grades will go in LOCUS on the morning of Saturday, August 8<sup>th</sup>.

<b>Exam Dates:</b> Thursday, July 16, 2020	Exam #1, Chapters 11, 13-15 (90 min., 9–10:30 am)
Thursday, July 30, 2020	Exam #2, Chapters 16, 17, 19 (90 min., 9–10:30 am)
Thursday, August 6, 2020	Cumulative Final Exam (2.5 hours, 9–11:30 am)

### **Tutoring:**

To find more information visit the [Tutoring Center webpage](#). Chemistry is fascinating but a challenge. Daily studying must be done to master principles taught in this course. Contact me if persistent troubles arise. Use office hours to help clarify subject matter/other questions. Complete (optional) end of chapter book problems for extra practice! Lecturer cannot provide copies of end of chapter questions due to copyright; students must have the eBook or hard copy textbook to see the end of chapter questions. There is also free [success coaching](#).

### **Additional Student Resources:**

A considerable amount of technology is utilized in this course. Below are links of information guides to Sakai, Panopto, ZOOM, and the University Help Desk, if students need more structured guidance on using the tools in the course to be successful. Students can always email the Lecturer, but the guides provided below likely reveal the answer more quickly when a student reads them on their own. These guides are written by the pros.

[SAKAI student guide](#)

[Panopto Information](#)

[ZOOM Information](#) and [Contacting ZOOM Support](#)

[Information Technology Service Desk](#) (ITS Help Desk)

[Loyola Library Webpage](#)

[LUC First and Second Year Advising](#)

[LUC Writing Center](#)

**Grading:** The established grading scale is subject to change at the Instructor's discretion. Please note Loyola University uses a +/- grading scale system and it is implemented in this course.

<b>Grading Category</b>	<b>Points</b>
Mastering Chemistry Homework	<b>110</b>
Exam #1	<b>150</b>
Exam #2	<b>150</b>
Cumulative Final Exam	<b>200</b>
<b>Total</b>	<b>610</b>

**Grading Scale:** The scale to determine the letter grade earned in the course is as follows:

**A** 100–93%, **A-** 92–87%, **B+** 86–82%, **B** 81–77%, **B-** 76–73%, **C+** 72–69%, **C** 68–65%, **C-** 64–61%, **D** 60–53%, **F** ≤ 52%

**Mastering Chemistry (online) Homework:**

The course ID is binaku07085. There will be Mastering Chemistry homework problems assigned for each chapter covered in this course. *These homework problems are required and are be graded.* Late homework submissions will not be accepted.

Chapters	Due Date (by 11:55pm CST)
11, 13	Tuesday, July 7 <sup>th</sup>
14	Friday, July 10 <sup>th</sup>
15, 16	Monday, July 20 <sup>th</sup>
17	Monday, July 27 <sup>th</sup>
19	Monday August 3 <sup>rd</sup>
20	Thursday, August 6 <sup>th</sup>

**Norms of Course Proceedings:**

The classroom is a safe place to question and explore ideas involving chemistry! Student and Instructor voices are important to this work. Feel comfortable asking questions during lecture and discussion, during office hours, etc. If disagreements arise with respect to an exercise answer or a topic of discussion, remember to respect fellow peers when proceeding to offer explanations or points of view.

Class sessions will begin and end promptly on time. Students should attend all synchronous sessions [but note if you have to miss, they will be recorded in Panopto] and actively participate in discussions. Summer courses are intensive and missing even one class [falling behind on watching Panopto videos] will put a student behind in terms of knowledge. If an absence is anticipated over the course of the semester, discuss this with the Instructor as soon as possible. Make-up examinations are at the discretion of the Instructor and likely not offered.

Envision the following for class sessions: class will promptly begin at 9:00 am, starting with an approximately 55 minute lecture, followed by a short break, then a 30 or so minute discussion/group work (sample problems, students ask questions, group work on practice problems, etc.), a short break, and finally a 55 minute lecture. Of course, this plan is not guaranteed under any circumstances and may fluctuate depending on the topic at hand and the pace of the class.

**Chem 102-006 Tentative Lecture Schedule (subject to change\*)**

\*This schedule is a general guideline of what to expect. The schedule herein is subject to alteration at the discretion of the Instructor based on the pace of the course. Exam dates will NOT change.

WEEK & Class Dates	Meeting Type (Sync / Async)	Lecture Topic(s), Chapters Discussed
<b>WEEK 1</b>		
<b>Tuesday, June 30</b>	Synchronous in ZOOM	Introductions, Syllabus Lecture, & Sakai Demo CHAPTER 11 → Liquids and Intermolecular Forces
<b>Wednesday, July 1</b>	Asynchronous	CHAPTER 11 → Liquids and Intermolecular Forces CHAPTER 13 → Properties of Solutions
<b>Thursday, July 2</b>	Synchronous in ZOOM	CHAPTER 14 → Chemical Kinetics



<b>WEEK &amp; Class Dates</b>	<b>Meeting Type (Sync / Async)</b>	<b>Lecture Topic(s), Chapters Discussed</b>
<b>WEEK 2</b>		
<b>Tuesday, July 7</b>	Synchronous in ZOOM	CHAPTER 14 → Chemical Kinetics
<b>Wednesday, July 8</b>	Asynchronous	CHAPTER 15 → Chemical Equilibrium
<b>Thursday, July 9</b>	Synchronous in ZOOM	Recap of CHAPTERS → 11, 13, 14, 15
<b>WEEK 3</b>		
<b>Tuesday, July 14</b>	Synchronous in ZOOM	CHAPTER 16 → Acid-Base Equilibria
<b>Wednesday, July 15</b>	Asynchronous	CHAPTER 16 → Acid-Base Equilibria
<b>Thursday, July 16</b>	Synchronous in ZOOM	<b>EXAM #1 (Ch. 11, 13, 14, 15), Join ZOOM at 9:00am for directions.</b> Lecture after exam on CHAPTER 17 → Additional Aspects of Aqueous Equilibria
<b>WEEK 4</b>		
<b>Tuesday, July 21</b>	Synchronous in ZOOM	CHAPTER 17 → Additional Aspects of Aqueous Equilibria
<b>Wednesday, July 22</b>	Asynchronous	Practice problems on Chapter 17 via Panopto
<b>Thursday, July 23</b>	Synchronous in ZOOM	CHAPTER 19 → Chemical Thermodynamics
<b>WEEK 5</b>		
<b>Tuesday, July 28</b>	Synchronous in ZOOM	CHAPTER 19 → Chemical Thermodynamics
<b>Wednesday, July 29</b>	Asynchronous	CHAPTER 20 → Electrochemistry
<b>Thursday, July 30</b>	Synchronous in ZOOM	<b>EXAM #2 (Ch. 16, 17, 19). Join ZOOM at 9:00am for directions.</b> Discussion after exam.
<b>WEEK 6</b>		
<b>Tuesday, August 4</b>	Synchronous in ZOOM	CHAPTER 20 → Electrochemistry Review for final exam.
<b>Wednesday, August 5</b>	Asynchronous	Review/Study for Final Exam. Asynchronous review problems posted in Panopto & Resources.
<b>Thursday, August 6</b>	Synchronous in ZOOM	<b>CUMULATIVE FINAL EXAM. Join ZOOM at 9:00am for directions.</b>