

SYLLABUS – CHEM 120B

Duration: Monday, December 20, 2021 – Saturday, January 08, 2022

ASYNCHRONOUS, ONLINE ONLY – NO MEETINGS ON CAMPUS

Instructor: Lynne A. Miller, Ph.D.

E-mail: lynnml@siue.edu (use your siue.edu account, put **CHEM120b** in the subject line)

Office hours: virtual, on-line office hours via Zoom (TBA), and by appointment

Blackboard website for CHEM 120b: <https://bb.siue.edu/webapps/login/>

**REQUIRED:**

- **Textbook:** *General, Organic and Biological Chemistry (6th Ed.)*
by Karen Timberlake.
ISBN: 0134762983
- **RELIABLE INTERNET ACCESS:** It is your responsibility to locate one or more computers compatible with our electronic homework program, Mastering Chemistry. *Link available on our Blackboard website.*
- **GOOGLE CHROME:** Internet browser required for use with Mastering Chemistry homework program.
- **Blank copy of our lecture notes packets to fill in as we go** (Blackboard site)
- **Computer with camera** (built-in or external USB port) and **microphone** for taking proctored, closed-book exams; **earbuds/earphones** for Zoom office hours.
- **Scanner -- or -- cell phone** with app that can **scan documents to PDF** format for upload into Blackboard (e.g. *Microsoft Lens*), if necessary
- **3-ring binder and hole punch** (for storing lecture notes)
- **5-subject homework notebook** (IMPORTANT for keeping track of your work throughout the term)

WORK FLOW for ONLINE FORMAT:

The work flow for the online version of CHEM 120b should be as follows:

(1) **READ THIS SYLLABUS IN ITS ENTIRETY**, and **REVIEW THE COURSE CALENDAR (tentative)**. A copy of the **syllabus** is available on our Blackboard site under "Course Materials" tab --> "Getting Started with CHEM 120b." **The course calendar** (also under "Course Materials --> Getting Started with CHEM 120b") **will be your guide in staying up-to-date with our class this semester. I suggest you print this out and keep it with you at all times.**

(2) **Download and print out the blank lecture notes from our Blackboard website.** These can be found in PDF form in the "Course Materials--> Getting Started in CHEM 120b" folder of our website. If you plan to print them from home, you may want to start with a fresh toner cartridge. If you plan to print them professionally, be prepared: it's eleven packets, and a large number of pages to print.

(3) **Hole-punch the blank notes and put them in a binder.** Many students prefer to print on one side of the page only so that they can use the back side of each sheet for their own handwritten notes. We do augment these PDF notes as we progress through each video lecture with items that I will jot down on our electronic tablet, so it's best to have some blank paper/extra space available if needed.

(4) **Consult the course calendar to keep track of your daily assignments.** The only way to survive a class as densely-packed as this one is to NOT FALL BEHIND!
Completing the tasks outlined for you by the end of each day for which they are scheduled is the BARE MINIMUM you will need to make it through the term.

Perform the daily tasks IN ORDER as follows:

- **READ:** your **reading assignment** (listed as textbook sections on the course calendar)
- **WATCH:** the **video module(s)** listed
- **FILL IN:** the **blank lecture notes** using the information found in the video modules
- **WORK:** your **Mastering Chemistry homework** (found on Blackboard website) that corresponds to that day's lecture (This homework is for **CREDIT!**).
- **WORK:** additional **practice problems** from the textbook (no credit, choose at your own discretion).

The daily assignments might seem excessive to you, but remember: We are squeezing 16 weeks of material into 3-week period. When you tell your friends and family that all you're doing this winter is taking organic/biochemistry, you're right: That's likely ALL you're doing. If you find that you simply cannot complete all of the reading AND the remainder of your daily work, it might be a better strategy for you to begin with the video

modules, then use the textbook to fill in those pieces which are still a bit fuzzy. Work to find the balance that is best for you.

(5) **Attend virtual office hours.** During the first week of the course, we will survey the class to find out which days and times each week you would be available to participate in virtual office hours. Virtual office hours will take place **in real time** via the Zoom live classroom, and will require the following minimum computer capabilities:

- Windows 2000+, Mac OS x 10.3+, or Linux
- 128 MB RAM (256 recommended)
- IE 6.0+, Safari 2.1+, Firefox 1.5-3.0 (Browser must be Java and JavaScript enabled)
- Internet access at 56K or above (NOTE: Broadband is strongly recommended; Wireless Internet is NOT recommended)
- Soundcard with microphone and speakers** (ITS recommends using headsets instead of external speakers or microphones, as these devices can cause severe audio interference during a synchronous classroom session).

During these office hours, you should be prepared to ask specific, problem-related questions. General requests like, "Could you please review everything I need to know about substitution chemistry," are inappropriate for this venue. More information regarding how to participate in virtual office hours will be provided during the first week of classes.

(6) **Take online exams.** All students this semester **will be required to take your exams online during the date and time period listed on the Course Calendar, NO EXCEPTIONS.** All exams must be submitted by 2:00 PM on exam day; please arrange your schedule accordingly. Students will have 3 hours to complete each exam, which will be proctored by web-camera the entire time via Respondus LockDown Browser and Monitor. Exam dates are listed later in this syllabus. **You should be prepared to present your photo ID on exam day, and demonstrate a secure exam environment prior to the start.**

(7) **Give us your feedback.** Although this is not the first time that Dr. Miller has taught in an online format, the tools and technology used vary from student to student, so you should expect a few minor glitches along the way. As long as we continue to communicate well with one another, and you, as students, let me know when there is a problem with our resources, we all should hopefully enjoy a productive summer convenient to all of our work schedules.

(8) **Finally, practice, practice, practice!** Chemistry, like tap dancing, requires a distinct set of SKILLS. I intellectually understand how to tap dance, I've studied the steps, memorized my fair share of Gene Kelly movies, but by NO MEANS do you want to see me attempt it on my own. Organic/biochemistry is much the same way. Provided you put in the man-hours required, you will soon have a wealth of useful items in your toolbox. Sitting back watching lectures thinking, "Yeah, this makes sense," won't get you very far on exam day.

VIDEO MODULES:

The video modules listed in your course calendar represent the “lecture” portion of our class. Each day you will find a series of Quicktime movies available for your viewing by clicking on the “Video Modules” link under the “Course Materials” heading of our website. You should watch ALL of the modules listed for that day. For example, if the course calendar instructs you to “Watch Module 01,” you should watch ALL video modules starting with the prefix 1 (e.g. 1a, 1b, etc.) listed under the “Module 1” folder. Have your blank lecture notes open in front of you as you watch, and fill in the missing information (words, products, intermediates, transition states, mechanistic arrows, etc.) as needed. This “kinetic” practice is meant to help you make the connections needed between your hand and your brain in learning organic/biochemistry.

To make sure that you do not fall behind, I suggest you try to work ahead on your reading schedule as posted in the course calendar.

**HOMEWORK (Mastering Chemistry – GRADED):**

Homework will be submitted electronically through Mastering Chemistry, a drawing program available through the publisher of your textbook. **There will be up to two Mastering Chemistry Homework Sets for every active day of lecture** (no sets on dates labeled “Exam” or “Review”).

YOU SHOULD DO YOUR BEST TO COMPLETE EACH HOMEWORK SET BY 11 PM ON THE DUE DATE FOR WHICH IT IS ORIGINALLY SCHEDULED IN OUR COURSE CALENDAR.

That said, because this is a winter course, and we have many students who work or will be celebrating holidays this term, etc., **all M/T/W sets for a given week will OFFICIALLY be due by 11 PM the Friday of that week, while Th/F/Sa/Su sets will OFFICIALLY be due by 11 PM the Sunday of that week.**

Mastering Chemistry homework sets account for 20% of your final point total in CHEM 120b. Please note that we do not offer individual extensions on the Mastering Chemistry quizzes. No exceptions.

To access these homework assignments, click on the “Mastering Chemistry Homework” link on the left-hand side of our Blackboard site.

HOMEWORK (Textbook – not graded):

It is highly recommended that students get additional practice for exams by working problems from our textbook. These problems are not assigned by the instructor, and no credit is given for textbook homework problems, but they are excellent practice in preparing for hour exams, and I am happy to answer questions regarding these problems during our virtual office hours.

EXAMS:

There will be **two (200-point) exams** given during the semester:

Exam 1 – Wednesday, December 29 – (3-hour exam) between 9:00 AM and 2:00 PM

Exam 2 – Friday, January 07 – (3-hour exam) between 9:00 AM and 2:00 PM

The material covered on each exam will include all topics covered in lecture up to the Wednesday before each Friday exam. **YOU MUST TAKE BOTH EXAMS AS SCHEDULED IN ORDER TO PASS THE COURSE.**

All CHEM 120b exams are cumulative. That is to say, the nature of the material in any organic chemistry/biochemistry course is that it builds upon itself. Each exam will, of course, **focus primarily on the material covered since the previous exam**, but do not “core dump” prior material. It may come back to haunt you!

GRADES:

Your grade for CHEM 120b is based on a 500-point scale:

2 exams (200 points each)..... 400 pts

Mastering Chemistry online HW (% correct, 100-pt scale)..... 100 pts

TOTAL points possible: **500 pts**

The grading scale for CHEM 120b is as follows:

85-100%	A
75-84.99%	B
65-74.99%	C
55-64.99%	D
<55%	F

It should be noted that it is quite common in organic/biochemistry chemistry courses to see low class averages on exams. Exams are written to serve as learning experiences, so consider them a challenge, strive to do your personal best, and do not overly concern yourself with absolute percentages. The instructor reserves the right to further curve final grades at the end of term if indicated.

ACADEMIC INTEGRITY:

It is expected that all students enrolled and/or participating in a course at SIUE adhere our student academic code: <http://www.siue.edu/policies/3c2.shtml>. Any student found participating in activities deemed inappropriate by the guidelines outlined in said code are subject to punishment ranging from failure in the course to expulsion from a degree program/the university.

CHEM 120b Course Calendar (Tentative)

WINTER 2021 (Textbook: Timberlake, 6th Edition)

MONDAYS	TUESDAYS	WEDNESDAYS	THURSDAYS	FRIDAYS	SATURDAYS	SUNDAYS
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
READ: SYLLABUS WATCH: How to Register for MC FILL IN: N/A WORK: Print out Lecture Packet A (Packets B-K, too, if you can!)	READ: 12.1-12.2 WATCH: Module 02 FILL IN: Packet A, pp. 7-18 WORK: Mastering Chemistry 02	READ: 12.5-12.6 WATCH: Module 04 FILL IN: Packet C, pp. 1-7 WORK: Mastering Chemistry 04	READ: 12.8 WATCH: Module 06 FILL IN: Packet C, pp. 17-24 WORK: Mastering Chemistry 06	READ: 13.3-13.4 WATCH: Module 08 FILL IN: Packet D, pp. 14-19 WORK: Mastering Chemistry 08	NO CLASS Christmas Day	READ: 15.2 WATCH: Module 10 FILL IN: Packet E, pp. 12-23 WORK: Mastering Chemistry 10
READ: 6.6-6.9, 7.1 (Review) WATCH: Module 01 FILL IN: Packet A, pp. 1-6 WORK: Mastering Chemistry Intro, Mastering Chemistry 01	READ: 12.3-12.4 WATCH: Module 03 FILL IN: Packet B WORK: Mastering Chemistry Set 03	READ: 12.7 WATCH: Module 05 FILL IN: Packet C, pp. 8-16 WORK: Mastering Chemistry Set 05	READ: 13.1-13.4 WATCH: Module 07 FILL IN: Packet D, pp. 1-14 WORK: Mastering Chemistry Set 07	READ: 14.2-14.4 WATCH: Module 09 FILL IN: Packet E, pp. 1-12 WORK: Mastering Chemistry Set 09 MC Sets 1-5 due (11 PM)		READ: 16.1-16.5 WATCH: Module 11 FILL IN: Packet F, pp. 1-7 WORK: Mastering Chemistry 11 MC Sets 6-11 due (11 PM)
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan
READ: 16.1-16.5 WATCH: Module 12 FILL IN: Packet F, pp. 7-13 WORK: Mastering Chemistry 12	READ: 18.1-18.6 WATCH: Module 14 FILL IN: Packet F, pp. 22-27 WORK: Mastering Chemistry 14	EXAM 1 <i>Exam length: 3 hours</i> Available 9:00 AM - 2:00 PM	READ: 15.5-15.6 WATCH: Module 16 FILL IN: Packet G, pp. 14-24 WORK: Mastering Chemistry 16	READ: 17.4-17.7 WATCH: Module 18 FILL IN: Packet H, pp. 15-28 WORK: Mastering Chemistry 18	NO CLASS New Year's Day	READ: 19.1-19.3 WATCH: Module 20 FILL IN: Packet I, pp. 1-13 WORK: Mastering Chemistry 20
READ: 18.1-18.6 WATCH: Module 13 FILL IN: Packet F, pp. 14-21 WORK: Mastering Chemistry 13	READ: 15.1-15.4 WATCH: Module 15 FILL IN: Packet G, pp. 1-14 WORK: Mastering Chemistry 15		READ: 17.1-17.4 WATCH: Module 17 FILL IN: Packet H, pp. 1-14 WORK: Mastering Chemistry 17	READ: 17.6 WATCH: Module 19 FILL IN: Packet H, pp. 28-40 WORK: Mastering Chemistry Set 19 IMPORTANT MATERIAL - should be review MC Sets 12-15 due (11 PM)		READ: 19.4-19.6 WATCH: Module 21 FILL IN: Packet I, pp. 14-28 WORK: Mastering Chemistry 21 MC Sets 16-21 due (11 PM)
3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan
READ: 20.1-20.6 WATCH: Module 22 FILL IN: Packet I, pp. 28-35 WORK: Mastering Chemistry 22	READ: 23.1-23.3 WATCH: Module 24 FILL IN: Packet J, pp. 28-39 WORK: Mastering Chemistry 24	READ: 21.1-21.3 WATCH: Module 26 FILL IN: Packet K, pp. 1-9 WORK: Mastering Chemistry 26	READ: 21.6-21.7 WATCH: Module 28 FILL IN: Packet K, pp. 18-26 WORK: Mastering Chemistry 28	EXAM 2 <i>Exam length: 3 hours</i> Available 9:00 AM - 2:00 PM		
READ: 22.2, 22.4-22.5 WATCH: Module 23 (LONG!!!) FILL IN: Packet J, pp. 1-27 WORK: Mastering Chemistry 23	READ: 24.2, 24.4, 24.7 WATCH: Module 25 FILL IN: Packet J, pp. 40-51 WORK: Mastering Chemistry 25	READ: 21.4-21.5 WATCH: Module 27 FILL IN: Packet K, pp. 10-18 WORK: Mastering Chemistry 27	READ: 21.8-21.9 WATCH: Module 29 FILL IN: Packet K, pp. 27-28 WORK: No set 29	MC Sets 22-27 due (11 PM)		MC Set 28 due (11 PM)