Chemistry for Health Sciences
The University of Toledo
College of Natural Sciences and Mathematics
Department of Chemistry and Biochemistry
CHEM1120–001, CRN 41749

Instructor: Dr. Kristi Mock
Email: kristi.mock@utoledo.edu
Office Hours: by appointment
Office Location: BO2086F
Instructor Phone: 419-530-4080
Term: Fall 2020

Course Website: Blackboard Learn
Class Location: Remote
Class Day/Time: MTWR 11:30 am -12:25 pm
Recitation Location: N/A
Recitation Day/Time: N/A
Credit Hours: 4

SPECIAL UNIVERSITY WIDE COURSE EXPECTATIONS DURING COVID-19

This is an unprecedented time for our Rockets community at the University of Toledo. In times of challenge, such as this, we come together to support each other and help keep the more vulnerable members of our community safe during the COVID-19 pandemic. If we all do our part, we will help to minimize the spread of infection and maintain engaging face to face class environments this fall. That is why we are asking all faculty, staff and students to adhere to the special course expectations described below. Please review these policies described below.

Course Attendance
In order to ensure that we self-quarantine if symptomatic, students, faculty and staff must perform a daily health assessment, based on based on CDC guidelines, before coming to campus each day, which includes taking your temperature. Students who are symptomatic/sick should not come to class and should contact the Main Campus Health Center at 419-530-3451. The University of Toledo has a missed class policy. It is important that you understand the attendance requirements for this course. Please engage with me if you have any questions about these requirements. Absences due to COVID-19 quarantine or isolation requirements are considered excused absences. You should notify me if you are in quarantine or isolation and these absences may not require written notice.

Face Coverings
To help keep each other safe, everyone must wear face coverings while on campus, except while eating, alone in an enclosed space, or outdoors practicing social distancing. Students will not be permitted in class without a face covering. If you have a medical reason that prevents you from wearing a face covering due to a health condition deemed high-risk for COVID-19 by the Centers for Disease Control and Prevention (CDC), you should submit a request for accommodation through the Student Disability Services Office (SDS) by completing this online application. You will need to provide documentation that verifies your health condition or disability and supports the need for accommodations. If you are already affiliated with SDS and would like to request additional accommodations due to the impact of COVID-19, please contact their accessibility specialist to discuss your specific needs.

Social Distancing
As further efforts to keep everyone safe, students should practice social distancing inside and outside the classroom, including when you enter and exit. Please maintain at least 6 feet of distance between yourself and
others, follow posted signage, and pay attention to the seating arrangements in the classroom. It’s important that you do not remove stickers or tape from seats and/or tables, as they are there to provide guidance on the appropriate classroom capacity based on recommended social distancing between individuals. Please be conscious of your personal space and respectful of the space of others in the class.

**Desks and Work Spaces**
An important part of keeping our classroom spaces safe involves keeping them sanitized. We ask all students to sanitize their desk and/or work space before class begins, with the sanitizing spray and paper towels provided in the classroom.

**Special Note**
Although we have developed a rigorous and evidence-based plan for keeping each other safe during COVID-19, it’s important to note that, based on the unpredictability of the virus, things can change at any time. So please be patient and understanding as we move through the semester. If at any point you have any concerns about class, completing course work/assignments, and/or health concerns related to COVID, please let me know.

Please also know that we recognize the COVID-19 situation has placed additional burdens on many of our students. If, at any point in the semester, you experience difficulties meeting your basic needs, managing your different responsibilities, or maintaining your physical or mental health, we have a variety of resources that can help. Please review and utilize our Student Success resources and let me know if you have any questions.

**CATALOG/COURSE DESCRIPTION**
The study of chemistry for students majoring in nursing and other health-related fields. This course includes general, organic, and biochemical topics in condensed form. The impact of chemistry in health fields will be emphasized.

**COURSE OVERVIEW**
CHEM 1120 is the second course in the Chemistry for Health Sciences series and builds upon the knowledge gained in CHEM1110. This course continues building a basic foundation in the principles of general chemistry, and then moves onto organic chemistry, and biological chemistry. CHEM 1120 is appropriate for non-chemistry majors who will require some knowledge of chemistry in their careers, but do not anticipate taking any further chemistry courses during their undergraduate career. This course is typically taken by nursing students, elementary education students, sports management students, and some science majors who do not want or need the more rigorous chemistry background that is provided by two or three years of chemistry courses. It is not appropriate for chemistry majors and may be too rigorous for non-science majors who are only interested in fulfilling their general education science core requirement. If you have any questions about course placement, please see me as soon as possible.

**STUDENT LEARNING OUTCOMES**
This course directly emphasizes the Ohio’s Department of Higher Education’s OTM Learning Outcomes related to:

- Effective communication
- Evaluation of arguments in a logical fashion; e.g. critical thinking
- Employing the methods of inquiry characteristics of natural sciences
- Acquiring an understanding of our global and diverse culture and society
- Engaging in our democratic society
Upon completion of this course, the student will be able to:

1. Explain how chemical processes work in the body.
2. Use chemical concepts to explain how chemistry is used in health care.
3. Demonstrate the ability to think critically and employ critical thinking skills.
4. Read and interpret graphs and data.
5. Demonstrate an understanding of the impact of science on society.

General Education Courses: This course is part of our institutional General Education Program and supports the general education outcomes for Critical Thinking and Integrative Learning and Scientific and Quantitative Reasoning and Literacy.

TEACHING METHODOLOGY

Students entering chemistry are often nervous and unsure about whether they can do well. Being successful will require time and effort. However, you have met the pre-requisites for this course, you belong here and are in the position to learn, grow and meet the challenge: you can learn chemistry.

Because research has shown that learning occurs when the learner is actively involved in “doing” rather than just listening or watching, asking questions and solving lots of problems will be key elements in your success. With these ideas in mind, the following are used to facilitate learning in this course.

Readings: Even before watching the lectures, I recommend reading the textbook. Repetition is one key to learning! While doing this, it is beneficial if you write down definitions, equations, and small notes as you go along. I will post partial outlines of my lectures that include space for this. As you read attempt to work the problems through the chapter. Don’t get discouraged if you can’t do them. After watching the lecture and practicing there, come back and try again. If you are still struggling, there are tutors on campus and of course me!

Lectures: Lectures will be posted for you to watch at your own pace. Now lecture will truly be at a pace appropriate for YOU. Feel free to pause the recording to write down definitions or answer questions, and then continue when you are ready to see the solutions. Keep in mind that since this is a recording, I cannot gauge how well you are understanding the material. Please be sure to contact me with questions. I can always make supplemental videos over topics if a lot of you are struggling, meet with you in virtual office hours, or answer questions through email.

Class Participation Points: Throughout the lectures I ask polling questions through Learning Catalytics (LC). LC is packaged with your online HW system, Mastering Chemistry (MC) (information below). Each of these questions is worth 0.5 points if correct and 0.1 point if answered incorrectly. While it may be tempting to enter your answers after viewing my solutions, I suggest working through the problems and entering an answer, then viewing the solutions, just like we would in class. It may seem silly but doing the work on your own (or with a classmate) and coming to an answer before viewing the solution is a much better method than just watching me do it again. We learn best by making mistakes. Since there are so many extra (I offer not quite double) Participation points, you shouldn’t worry about getting them wrong. The LC questions are there to help you learn. You don’t learn a sport by watching others play. You go on the field, fall, and pick yourself back up to learn it. Use the LC questions as a safe place to fall.

Homework: We will be using the Modified Mastering Chemistry Homework System (MC). It is an online, web-based learning system that is packaged with your textbook. It is part of the inclusive access package for this course. You do NOT need to purchase an access code.

Problem sets will be posted in advance, feel free to work ahead. However, you must complete the assignments by the posted deadlines because I will not re-open the online homework assignment once the deadline passes!! For each problem in MC, you have 6 attempts to answer correctly. You will not have points taken away during these 6
attempts unless it is a multiple-choice question; a small deduction is made for each wrong answer to a multiple-choice question. If you do not exhaust your options or hit give up, MC may not assign points for that section; be sure to double-check for this before the submission deadline.

Additionally, I strongly encourage you to attempt the problems from the end of each chapter in your textbook until you are very familiar with that topic. If you are having difficulties working either the Mastering Chemistry assignments or the questions from the end of each chapter, you should either work with your classmates (a post on the discussion board of our class website on Blackboard is appropriate) or contact me.

**Quizzes:** Once you feel you have mastered the material for the week you can attempt the quiz. Weekly quizzes will open on Bb each week at midnight on Thursday and close midnight Sunday. You will have unlimited attempts to earn the grade you want, but each attempt will have a time limit. Unlimited quizzing allows you to practice with the material in timed environment without the stress of getting everything right the first time. I allow unlimited attempts so you can relax and make sure you LEARN the material.

**Final Examination:** The final examination will require proctoring. For most of you this will require installing LockDown Browser and the use of a webcam. If for any reason you cannot get these to work, we can pair you with a live proctor. Please reach out if you have difficulties during the practice in week 1.

**WORK WEEK**

All assigned work is to be completed by 11:59 PM on the date specified in the Weekly Module on Blackboard. You are encouraged to work ahead so that if you have any difficulties with the material or your personal schedule you have enough time to meet the deadlines.

**PREREQUISITES AND COREQUISITES**

CHEM 1110 with a minimum grade of C, Health Science Chemistry Test with a score of 34, or ALEKS Health Sciences Placement test of 39%.

**TEXTS AND ANCILLARY MATERIALS**

**Required Materials:**

- Because this course is part of the inclusive access program you have already paid for access to the following items which can be accessed directly through Blackboard:
  - Mastering Chemistry
  - Learning Catalytics
- A webcam. This course requires the use of a webcam for online exams. The webcam can be the type that's built into your computer or one that plugs in with a USB cable. If you have difficulty with the Webcam requirement, please contact me as soon as possible to arrange for alternate live proctoring arrangements for the exams.
- LockDown Browser.
  - Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature [https://www.respondus.com/products/lockdown-browser/student-movie.shtml](https://www.respondus.com/products/lockdown-browser/student-movie.shtml)
  - Download and install LockDown Browser from this link: [https://download/respondus.com/lockdown/download.php?id=213815819](https://download/respondus.com/lockdown/download.php?id=213815819)
- A non-programmable calculator. Only non-programmable calculators are allowed when you take exams in this course. Examples of non-programmable calculators include: TI-30XIIS, TI-30Xa, TI-30XS Multiview, TI-32, TI-34 II, TI-34 Multiview, TI-36, TI-36X Solar, Casio FX-77, Casio FX-260, Casio FX-65. Many of these can be purchased for about $10. A calculator that has any of the following functions is not permitted for use
on General Chemistry exams: solver, integration, differentiation, unit conversions, or a calculator that allows you to type an equation. If you are not sure whether your calculator is acceptable, contact me and ask.

Optional Materials:

TECHNOLOGY REQUIREMENTS
Please view the technology considerations for this course, including technical skills needed, general technology requirements, and technology privacy policies.

Blackboard (https://blackboard.utdl.edu) and Modified Mastering Chemistry (available through the Blackboard course) will be used on a regular basis in this course. Students need to have access to a properly functioning computer throughout the semester. Student computers need to be capable of running the latest versions of plug-ins, recent software and have the necessary tools to be kept free of viruses and spyware. Updated software is available from the Online Learning Download Center. Other resources from UToledo Online can be found at http://www.utoledo.edu/dl/students/required-info-online-learners.html

For exams, students may use an approved calculator. Any calculator that is programmable, whether graphing or non-graphing, and any calculator based on a phone or other device that can receive or transmit data, are prohibited.

ACCESSIBILITY OF COURSE TECHNOLOGIES
Please view Accessibility of Course Technologies for information regarding the accessibility of Blackboard and other technologies used in this course.

ACADEMIC POLICIES
The University of Toledo has a number of academic policies intended to promote fairness and equity among students. These are wide ranging and include policies on adding and dropping a course, duel degree requirements, graduation with honors, academic dishonesty, confidentiality of student records and veteran assistance to name just a few. Please use the following URL to read a comprehensive list of academic policies that may pertain to you in this class and throughout your academic journey: Undergraduate Academic Policies. If you have any questions after reading through the policies, please let me know.

Refer to the university’s policy on Academic Dishonesty in the university catalogue. Violation of this policy can result in a course grade of F with additional university sanctions possible. You will be required to formally acknowledge the terms of our Academic Honesty Statement, by providing a statement through our Blackboard course page.

COURSE EXPECTATIONS
1. Check Blackboard and your UT email every day.
2. Participate in discussions on the Discussion Board.
3. Finish assignments in a timely manner.
4. At a minimum, answer the assigned HW and quiz questions. There are many problems found throughout the book that should be worked if you are having difficulty with a certain concept.
5. If you need extra help, make an appointment with your professor or reach out through email. You will not be graded or judged based on the questions that you ask! Additional resources are listed on page 8.
As your instructor, I am here to help, and will do my best to respond to email within 48 hours. Students are expected to check their UT email account and blackboard frequently for important course information.

Examinations
If you cannot take an exam at the scheduled time due to an irresolvable conflict with a major University related responsibility, you must provide written documentation to verify the conflict before the exam date and obtain instructor approval before the exam. This situation may occur for students on official university business. If the documentation is approved, you will be given an opportunity to take the exam at an arranged time before the scheduled test date.

The final exam cannot be excused. For all exams you must show a photo ID card. You may use a non-programmable calculator. You cannot use a programmable calculator or phone.

Students who unexpectedly miss an exam due to illness, car accident or similar extreme circumstance should inform their instructor ASAP. Documentation such as a physician’s note, an accident report, etc. is required. An email to the instructor or a telephone call within 24 hours is expected. In all other cases a missed exam will result in 0 on the exam.

COMMUNICATION GUIDELINES

Communication: This class is being taught for you so if you are having trouble understanding any of it, let me know. I am here to help! Although there are no regular office hours, please reach out with questions. You can email or leave a voice message on my office phone at any time; I will do my best to respond within 48 hours. We can also set up an appointment to meet virtually through Blackboard Collaborate. I have found that you, as a student, have more time constraints than I do so feel free to send an email or voice message with a few times you are available, and I will see what fits in my schedule. Remember it is my goal to give you as much individual attention as you need this semester, you just need to make the appointment.

Netiquette: It is important to be courteous and civil when communicating with others. Students taking online courses are subject to the Student Code of Conduct. To ensure your success when communicating online, take time to familiarize yourself with the “dos” and "dont's" of Internet etiquette.

Email: Students are expected to check their UT email account frequently for important course information. This information will also be posted on Blackboard.

Real-Time Communication: A link to Blackboard Collaborate Ultra, a real-time communication tool has been added to the course menu in Blackboard. We will not be using this tool as part of our course assignments; however, the tool is available for you to use if and when you need it. I would be happy to arrange a time to meet with you virtually if you feel that you have questions that would best be answered in real-time. Conversely, you could also use the tool to meet with fellow students online in order to enhance your understanding of course concepts.

OVERVIEW OF COURSE GRADE ASSIGNMENT
It is a very high priority to your instructor to ensure fairness and equity in all grading aspects of the course. There is nothing about this class that requires a certain number of students to get a certain grade. We don’t use a curve, so every one of you can achieve the grade that you are willing to earn!

If you decide you are not going to attend this class (or any other class you have registered for), you must formally withdraw (drop) from the course. You can do this by logging onto the myUT portal, clicking on the “Student” tab, and then under “My Toolkit” click on Register/Drop/Withdraw.
Final Grading
The following is the distribution of possible points in the course:

- Participation points* 60 pts 9%
- Mastering Chemistry (online HW)* 100 pts 14%
- Quizzes 100 pts 14%
- Midterm Exams – 2 @100 points each 200 pts 29%
- Final Exam 240 pts 34%

Total: 800 pts

*These categories will have extra points available to allow students a chance to reach the total points. However, points added to the total grade will not exceed total points for a category.

The grading scale for this class is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93%</td>
</tr>
<tr>
<td>A-</td>
<td>90%</td>
</tr>
<tr>
<td>B+</td>
<td>87%</td>
</tr>
<tr>
<td>B</td>
<td>83%</td>
</tr>
<tr>
<td>B-</td>
<td>80%</td>
</tr>
<tr>
<td>C+</td>
<td>77%</td>
</tr>
<tr>
<td>C</td>
<td>73%</td>
</tr>
<tr>
<td>C-</td>
<td>70%</td>
</tr>
<tr>
<td>D+</td>
<td>67%</td>
</tr>
<tr>
<td>D</td>
<td>63%</td>
</tr>
<tr>
<td>D-</td>
<td>60%</td>
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</table>

Drop, Withdrawal and Incomplete Grades: Dropped courses do not appear on your transcript. The deadline for dropping is August 31st. You may withdraw from the course and receive a grade of W. The deadline for withdrawal is October 23rd. W’s do not affect your GPA but do appear on your transcript. A course grade of incomplete is given only to those who have completed all but a small percentage of course requirements for an acceptable reason. You will retain all of your previously determined grades.

UNIVERSITY POLICIES
Policy Statement on Non-Discrimination on the Basis of Disability (ADA)
The University is an equal opportunity educational institution. Please read The University’s Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.

Academic Accommodations
The University of Toledo embraces the inclusion of students with disabilities. We are committed to ensuring equal opportunity and seamless access for full participation in all courses. For students who have an accommodations memo from Student Disability Services, I invite you to correspond with me as soon as possible so that we can communicate confidentially about implementing accommodations in this course. For students who have not established affiliation with Student Disability Services and are experiencing disability access barriers or are interested in a referral to healthcare resources for a potential disability or would like information regarding eligibility for academic accommodations, please contact the Student Disability Services Office (http://www.utoledo.edu/offices/student-disability-services/) by calling 419.530.4981 or sending an email to StudentDisability@utoledo.edu.

Additional Policy Statements
Students can find other university policies listed by audience on the University Policy webpage (http://www.utoledo.edu/policies/audience.html/#students).

ACADEMIC AND SUPPORT SERVICES
Please view the Learner Support page for links and descriptions of the technical, academic, and student support services available to UT students. The university provides a variety of academic and support services on campus to help you succeed and reach your fullest potential. Whether you need to ask a question, get help with an
assignment, seek advice from a counselor, find a job or join a club, UTtoledo is there for you! Just use the following URLs to find the academic support or service you need:

**Chemistry Help from Teaching Assistants:** Virtual/online help will be available. The link for the Help Center is [https://us bbwcollab.com/guest/ce2a41f345ed4e9d939dd6e7b0ef0c63](https://us bbwcollab.com/guest/ce2a41f345ed4e9d939dd6e7b0ef0c63) No appointment is necessary!

**Tutoring through the Learning Enhancement Center:** [http://www.utoledo.edu/success/lec/](http://www.utoledo.edu/success/lec/)

**Library:** [http://www.utoledo.edu/library/](http://www.utoledo.edu/library/)

**Success Coaching:** [https://www.utoledo.edu/successcoach/](https://www.utoledo.edu/successcoach/)

**Student Affairs:** [http://www.utoledo.edu/studentaffairs/](http://www.utoledo.edu/studentaffairs/)

**Career Services:** [http://www.utoledo.edu/success/career/](http://www.utoledo.edu/success/career/)

**Course scheduling assistance:** Chemistry Department Secretary, Ms. Samples. You can find her in Room BO 2022, ; email: [pamela.samples@utoledo.edu](mailto:pamela.samples@utoledo.edu), or telephone 419-530-2698. Ms. Samples takes care of all scheduling changes.

**SAFETY AND HEALTH SERVICES FOR UTOLEDO STUDENTS**
Please use the following link to view a comprehensive list [Campus Health and Safety Services](http://www.utoledo.edu/library/) available to you as a student.

**Copyright Notice**
The materials in the course website are only for the use of students enrolled in this course for purposes associated with this course and may not be retained or further disseminated.

A summary of the weekly assignments and anticipated course schedule are provided on the following pages. Note the Exam date. As instructor, I reserve the right to modify the schedule of topics if I believe it to be in the best interest of the class, however, the Exam dates will NOT change.

**Be Sure That Your Travel & Employment Plans Do Not Conflict with the Exam Schedule.**
## CHEM 1120 – Chemistry for Health Sciences

University of Toledo

**TENTATIVE Course Schedule – Fall 2020**

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Chapter Sections and Topics</th>
<th>Assignments*</th>
<th>SLOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 17-21</td>
<td>Welcome 6.6-6.9 Ionic and Molecular Compounds</td>
<td>Meet and Greet Getting Started Quiz Read Ch 6.6-6.9 Guided Note-Taking LC questions Ch 6 HW in MC Ch 6 quiz in Bb</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>2</td>
<td>Aug 24-28</td>
<td>9. Solutions</td>
<td>Read Ch 9 Guided Note-Taking LC questions</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>3</td>
<td>Aug 31-Sept 4</td>
<td>9. Solutions (Continued) 10. Reaction Rates and Chemical Equilibrium</td>
<td>Read Ch 10 Guided Note-Taking LC questions Ch 9&amp;10 HW in MC Ch 9&amp;10 quizzes in Bb</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>4</td>
<td>Sept 7-11</td>
<td>Labor Day, Mon. Sept. 7 – no class 11. Acids and Bases</td>
<td>Read Ch 11 Guided Note-Taking LC questions Review - Gen Chem in MC</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>5</td>
<td>Sept 14-18</td>
<td>12. Intro to Organic Chemistry: Hydrocarbons</td>
<td>Midterm Exam 1: Mon. Sept 14 Ch 1-10 Read Ch 12 Guided Note-Taking LC questions Ch 11 HW in MC Ch 11 quiz in Bb</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>6</td>
<td>Sept 21-25</td>
<td>12. Intro to Organic Chemistry: Hydrocarbons (Continued)</td>
<td>Guided Note-Taking LC questions Ch 12 HW in MC Ch 12 quiz in Bb</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>7</td>
<td>Sept 28-Oct 2</td>
<td>13. Alcohols, Phenols, Thiols, and Ethers 14. Aldehydes, Ketones, and Chiral Molecules</td>
<td>Read Ch 13&amp;14 Guided Note-Taking LC questions Ch 13 HW in MC Ch 13 quiz in Bb</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Week</td>
<td>Dates</td>
<td>Topics</td>
<td>Read/Handouts</td>
<td>Sections</td>
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</tbody>
</table>
| 8    | Oct 5-9   | 14. Aldehydes, Ketones, and Chiral Molecules (Continued)  
15. Carbohydrates  
16. Carboxylic Acids and Esters | Read Ch 15&16  
Guided Note-Taking  
LC questions  
Ch 14&15 HW in MC  
Ch 14&15 quizzes in Bb | 1,2,3,4,5 |
| 9    | Oct 12-16 | 16. Carboxylic Acids and Esters (Continued)  
17. Lipids | Read Ch 17  
Guided Note-Taking  
LC questions  
Ch 16&17 HW in MC  
Ch 16&17 quizzes in Bb | 1,2,3,4,5 |
| 10   | Oct 19-23 | 18. Amines and Amides  
19: Amino Acids and Proteins | Read Ch 18&19  
Guided Note-Taking  
LC questions  
Ch 18 HW in MC  
Ch 18 quiz in Bb | 1,2,3,4,5 |
| 11   | Oct 26-30 | 19: Amino Acids and Proteins (Continued)  
20. Enzymes and Vitamins | Midterm Exam 2: Mon. Oct 26 Ch 11-18  
Read Ch 20  
Guided Note-Taking  
LC questions  
Ch 19&20 HW in MC  
Ch 19&20 quizzes in Bb | 1,2,3,4,5 |
| 12   | Nov 2-6   | 21. Nucleic Acids and Protein Synthesis | Read Ch 21  
Guided Note-Taking  
LC questions  
Ch 21 HW in MC  
Ch 21 quiz in Bb | 1,2,3,4,5 |
| 13   | Nov 9-12  | Veteran's Day Wed. Nov. 11 – no class  
22. Metabolic Pathways for Carbohydrates  
23. Metabolism and Energy Production | Read Ch 22&23  
Guided Note-Taking  
LC questions  
Ch 22 HW in MC  
Ch 22 quiz in Bb | 1,2,3,4,5 |
| 14   | Nov 16-20 | 23. Metabolism and Energy Production (Continued)  
24. Metabolic Pathways for Lipids and Amino Acids  
- Climate Change | Read Ch 24  
Guided Note-Taking  
LC questions  
Ch 23&24 HW in MC  
Ch 23&24 quizzes in Bb | 1,2,3,4,5 |
| 15   | Nov 23-26 | Review  
Thanksgiving Break Wed. through Fri. Nov. 24-26 – no class | Final Reviews due in MC | 1,2,3,4,5 |
| Finals Week | Nov 30-Dec 4 | ***** Comprehensive Final Exam *****  
Monday, Nov. 30 from 12:30-2:30 PM  
You Must Take the Final at This Time. | | |