

# BIOL 1140.501- Biology for Health Sciences

Fall 2024 • CRN # 66764 • Lecture Syllabus



VALENCIA

## Face to Face

Lecture: Mon. & Weds.

1:30pm-2:45pm

Valencia Health Sciences (VAHS)

Rm. 101

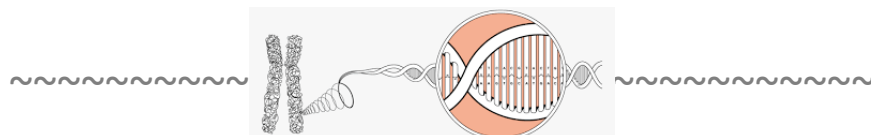


I love teaching Biology - the study of life. In this class we will start by learning about the molecules that are part of all cells. Yes - your cells and everything we eat are composed of molecules. Most of the semester we will spend learning about the cell - such wonderful little machines that do all the work within an organism. First, we will have to learn about all the cell components - think of them as little organs (organelles). Then, we will learn about how our cells obtain energy from food we eat. Next, we will discuss DNA - our chromosomes; they are the ones that determine what we look like and everything about us. Have you ever thought about cell division? Why do cells divide? Why do we need to make more cells? These questions will be answered during our discussion on Mitosis and Meiosis. We also will discuss how traits are passed from generation to generation. Look at your family and see what traits you share. The last part of the semester we briefly study anatomy & physiology of the human body. How amazing is this? Now do you know why I love teaching Biology - we learn about our body and how it works.

Bring the knowledge that you have and take the journey with me as you continue your educational goals.

### Course Description

This introductory biology course for students interested in health science careers focuses on the concepts of chemistry, cell biology, metabolism, genetics, and regulation of gene expression.



I started my educational path at Dine College, a community college on the Navajo Reservation. My passion is teaching Biology and Microbiology and studying bacteria. I'm very excited to meet and work with you. -Dr. T



Tammi Duncan-Teller, PhD

"I hope to continue to inspire our nation's youth to pursue careers in science, technology, engineering, and math so they, too, may reach for the stars."

--ELLEN OCHOA The First Hispanic Woman to Go to Space.

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# Student Course Learning Outcomes (CLO)

At the completion of this course, students will be able to:

<b>Introduction to Biology</b> CLO 1: Explain the central ideas and process of biology, including the organization of life, evolution, selection and adaptation, and application of the scientific method. CLO 2: Explain the role of science and critical thinking in society.
<b>Introduction to chemistry</b> CLO 3: Apply basic chemistry to the biology cells
<b>Cells</b> CLO 4: Describe the structures and functions associated with eukaryotic cells and compare/contrast to prokaryotic cells. CLO 5: Describe the components and mechanisms of cellular metabolism
<b>Genetics</b> CLO 6: Describe the DNA structure and replication, including mutation and DNA repair. CLO 7: Explain the central dogma of genetic flow; explain gene expression and how it's regulated. CLO 8: Explain the relationships between sexual reproduction, genetic diversity and inheritance. CLO 9: Describe and contrast the processes of mitosis and meiosis. CLO 10: Describe patterns of inheritance and human genetic disorders.
<b>Human Physiology</b> CLO 11: Explain homeostasis and identify major tissues, organs and organ systems and their function.

The overall goal of the course is to help you become literate in these scientific concepts and be able to apply them in your life as you move forward in reaching your educational goals.

## Dr. T's Contact Information

Email: [tammid31@unm.edu](mailto:tammid31@unm.edu)  
Office: 505.925.8726  
Front office: 505.925.8600  
Office: Rm 132, Arts & Sciences Building



- Mon. Face to Face (F2F) 10:30-11:30am
- Tues. F2F 9:00-10:30am
- Wed. None
- Thurs. F2F 9:00-10:30am (Office) and 1:00-2:00pm (Microbiology lab-VAHS 110)
- Fri. Remote-ZOOM only: 10:30-11:30am

Zoom meets: Available by appt.

<https://unm.zoom.us/j/5736149969>

Password: **biology**



# Grading Criteria

**Preps:** Preps are worth 3 pts and due to UNM Canvas at 11:59pm the evening before class. *Late -2pts.* Only accepted within 10 days late. Highest score of 2 attempts will be used.

**Follow up Assignments (FA):** FAs are worth 8 pts and are assigned at the end of each chapter. If submitted with no name will result in deduction of 1 point. *Late -2pts.* Only accepted within 10 days late.

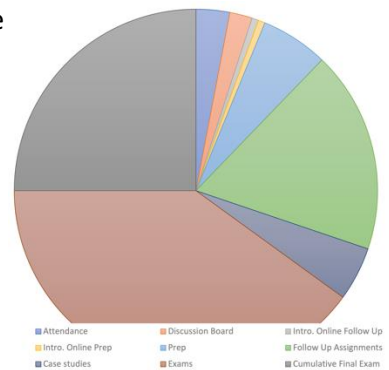
**Exams:** There are four exams. Three of the highest scores will count toward your grade. Each of these exams is worth 75pts and their total is 225 pts. You will be given one class period to complete each exam. Exam will only be given in class, unless student has Accommodations arranged through the Office of Student Affairs. You will not be able to use your notes, textbook, or online resources.


**Case studies:** There are two case studies that will help you build your critical thinking and self-assessment skills. *Late -2pts.* No name -1pt. Not all questions completed points are deducted to C. Only accepted within 10 days late.

**Attendance (A):** You must be in the class to get the most out of this course and participate in class discussions and Active Learning activities. You are Responsible for “signing in” to Sign In sheet in your attendance in class. Attendance for the week will be given via submission of class notes for the week. Class notes must be your own notes via handwritten, typed, but no pictures of whiteboard. -1pt no name on assignment.

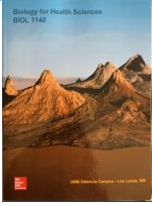
**Discussion Board (DB):** DB are assigned via UNM Canvas and are used to acknowledge time management, self-reflect on your class performance after exams, start preparing for your Career admissions, and learn about the Guiding Principles, Imposter Syndrome, and team-work.-0.5 for late DB submissions. Only accepted within 10 days late.

**Cumulative Final:** The Final is a 100pts exam at the end of the semester. You will have 2 hours to take this exam face to face during semester finals week.



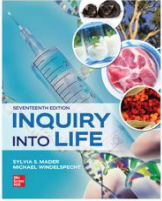
	Points per assignment:	Total Points:	Percentage of overall grade:
Preps (10 of 10)	3 pts each	30pts	6%
Follow up Assignments (8 of 9)	8 pts each	64pts	14%
Intro. Online Prep (1)	3pt	3pt	1%
Intro. Online Follow Up (1)	3pt	3pt	1%
Case studies (2)	12 pts each	24 pts	5%
Exams (3 of 4)	75 pts each	225 pts	42%
Attendance (15)	0.5pt/class	15 pts	3%
Discussion Board (10)	1pt	10 pts	2%
Cumulative Final (1)	100 pts	100 pts	26%
<b>TOTAL</b>		474 pts	100%
<b>A+ 100% or higher</b>	<b>B+ 88-89%</b>	<b>C+ 78-79%</b>	<b>D+ 68-69%</b>
<b>A 91-99%</b>	<b>B 81-87%</b>	<b>C 71-77%</b>	<b>D 61-67%</b>
<b>A- 90%</b>	<b>B- 80%</b>	<b>C- 70%</b>	<b>D- 60%</b>
			<b>F &lt;60%</b>

## Required learning sources



**Textbook:** Inquiry into Life by S. Mader and M. Windelspecht, 16th edition, 2020, McGraw Hill Publisher. The bookstore has a special edition of the book - Biology for Health Sciences-University of New Mexico-Valencia. There is one available via Course reserves, 2 hr checkout.

OR



**Ebook:** Inquiry into Life by S. Mader, 17<sup>th</sup> edition, 2024, McGraw Hill Publisher. The bookstore has eBook **EISBN: 9781264407125**. You'll be able to access the ebook on UNM Canvas.

**Technology and computer:** In this course, you will need a dependable computer, reliable internet connection, computer speakers, Microsoft PowerPoint and Word, access to pdf files, and Adobe Flash Player.

**UNM Canvas:** <http://canvas.unm.edu> The webpage contains resources you need to succeed in the course. Login using your UNM username and password. ***You are responsible for all announcements, assignments, tests and/or any changes to the syllabus that will be posted on the webpage. Announcements are sent every Friday. Please check email regularly.***



## Course Policies/Information

**This is a three credit-hour Face to Face course.** Class meets face to face for two 75-minute session of direct instruction for sixteen weeks during the current semester. Students are expected to complete a *minimum* of six hours of out-of-class work (readings, homework, study, assignment completion, and class preparation) each week.

**Attendance.** You must be in the class on time to get the most out of this course, participate in class discussions, and to get a good grade. You are responsible for "signing-in" to document your attendance in class. The student will be held responsible for all material and information regardless of whether the student was in class. Exception will be made per student basis dependent on emergency. **\*\*Students will earn 1pt for Attendance points each week (.5 pts from each lecture class) from submitting completed hand written or typed class notes from both days. Pictures of the whiteboard will not be accepted for this assignment. Be sure to write your name and date on the assignment.-.5pts if submission of picture of whiteboard.**

**Make-up Exams.** Make-up exams will be given to students with a documented emergency. It is critical that you notify the instructor prior to the day of the missed exam. For semester final, if an emergency comes up, you must contact instructor within 24hours of final. No final makeup after 24hours. Documentation of emergency ill be needed to make up final.

**Prep.** These will be assigned weekly to help you master the concepts presented. They are due to UNM Canvas at 11:59pm the evening before class where we cover the topic.

**Late assignments.** Late assignments will only be accepted within 10days of the following the due date. There will be a 50% reduction in grade for Discussion board posts. See guidelines for Discussion board, Preps, Follow ups, and Case Studies. Exam will not be accepted after 1 week after the Exam was given in class. Be sure to take the Exam as soon as possible. No assignments will be accepted from before Fall Break in the second half of the semester. No Assignments in the second half of the semester will be accepted after the last day of class.

## Course Policy/Information Continue

**Withdrawal.** Last day to withdraw from class without a “W” on your transcript is **Sept. 6, 2024** at 5:00pm using UNM Canvas. Last day to withdraw from class with out Dean’s signature/permission on LoboWEB is **Nov. 8, 2024**. See <https://registrar.unm.edu/semester-deadline-dates/index.html> Fall 2024-Full Term (16weeks). I don’t submit “W” after the 12<sup>th</sup> week of classes.

**Cell phones.** As a courtesy to the class, please silence any cell phones during class and before taking your tests. If you need a to step out during a test/quiz, please leave your phone on your table before stepping out.

**Disruptive behavior.** Please avoid any disruptive behaviors in the classroom and online communications. For class, this includes excessive talking and going in and out of the class and arriving late to class. For online communication and interactions follow netiquette.

**Plagiarism.** Only submit work that is yours. Always cite any work used using APA format. <https://libguides.unm.edu/c.php?g=326014&p=2187071> Copy and Paste from Google, your classmates, or your book is considered plagiarism. Write answers in your own words.  
*You will receive one warning. A second time you the UNM Science & Wellness Department Chair notified. A third time you will be dropped from the course.*

**Netiquette.** The rationale of providing **Rules of Netiquette** for students is to provide guidelines for online behavior and communication between you and your classmates. We (myself included) are all held to the following guidelines that will provide a safe and respectful online classroom space for constructive critiques, discussion, and scholarly reports between you and your classmates. These guidelines are expected to be upheld in any online communications (Email, Discussion Board Forums, Messaging, and Blogs) between all of us.

### Rules of Netiquette continue.

1. Your online behavior and communication should be similar to how you would treat and speak to a person in standing in front of you.
2. Be mindful of different backgrounds, which include cultural, linguistic, political, and religious differences.
3. Be respectful of other’s views and opinions and try to remain open minded. You can have respectful disagreements. Avoid flaming, which is publicly attacking or insulting another person’s view.
4. Provide constructive and concise responses to the subject of the posts in Discussion Forums and Blogs. Stay on topic, read all comments/viewpoints in discussion before contributing to discussion, avoid slang and profanity, be prepared to correct information if your comment is misunderstood or misinterpreted, and avoid using personal identifying information.
5. Practice good grammar and spelling skills. Use 12 pt. font Times New Roman or Calibri, avoid text shortcuts, define acronyms, use correct spelling, limit use of emoticons, and use clear and concise language.
6. Avoid the use of all CAPITAL LETTERS. It suggests shouting, impoliteness, or can be aggressive. Reread you post, checking for sarcasm, slang or anger, before submitting it. Avoid sending a message out of anger or written if you are angry.
7. Call your instructor if you are in conflict with them or another student.
8. In relation to security, protect your passwords and don’t send confidential information through email. If you suspect your password has been used, change your password.
9. There are specific listings of practices for email netiquette and message board netiquette below.



## Email Netiquette

- Write a concise email to @unm.edu accounts.
- Include "Biol 1140" in your subject line to me.
- Ask for permission of author before forwarding an email to classmate.
- Include a formal salutation to your recipient.



## Discussion Forum and Journal Netiquette

Include "topic-your name" in subject line.

Write concise paragraph in-your-own words on the topic.

Paraphrase and cite your references with APA and credit classmates work if appropriate.

Read all messages in thread before replying.

Don't repeat another person's post.

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**Accommodations:** UNM-Valencia is committed to providing courses that are inclusive and accessible for all participants. As your instructor, it is my objective to facilitate an accessible classroom setting, in which students have full access and opportunity. If you are experiencing physical or academic barriers, or concerns related to mental health, physical health and/or COVID-19, please consult with me after class, via email [tammid31@unm.edu](mailto:tammid31@unm.edu) or during talk-to-me hours. I am not legally permitted to inquire about the need for accommodations. We can meet your needs by collaborating with the Director of Student Affairs, Hank Vigil, by email [vigilh@unm.edu](mailto:viglih@unm.edu) or by phone (505) 925-8581.

## Academic Integrity:

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: <https://policy.unm.edu/regents-policies/section-4/4-8.html>.

The policy states:

*Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.*

Academic Dishonesty is defined as:

*"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records."*

**Student Support:** Our campus is dedicated to your successes, and we provide services that offer guidance. If you are not sure, please feel free to ask. Whether it is academic or not.

- PASOS Resource Center: <http://valencia.unm.edu/campus-resources/pasos/pasosresource-center/resource-guide.html>
- TimelyCare (<https://valencia.unm.edu/campus-resources/pasos/pasos-resource-center/timelycare.html>) is available to deliver a new virtual health-and well-being platform for all students. TimelyCare provides 24/7 access to virtual care from anywhere in the United States at no cost. You can talk to a licensed provider to get the care you need via phone or secure video visits. For additional questions or support in downloading the app and creating your profile, contact PASOS Resource Center ([pasos@unm.edu](mailto:pasos@unm.edu)).
- UNM-Valencia Learning Commons (Tutoring): <http://valencia.unm.edu/campusresources/learning-commons/index.html>
- TRIO Student Support Services: <http://valencia.unm.edu/students/ssstrio/index.html>
- UNM-Valencia Campus Food Pantry (free snacks, meals, goodies): <http://valencia.unm.edu/campus-resources/pasos/pasos-resource-center/campusfood-pantry.html>
- Jobs on campus: <https://valencia.unm.edu/students/financial-aid/studentemployment.html>

Equal Opportunity and Non-discrimination In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see page 15--[offices/list/ocr/docs/qa-201404-title-ix.pdf](https://oeo.unm.edu/office/list/ocr/docs/qa-201404-title-ix.pdf)). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct, and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity ([oeo.unm.edu](http://oeo.unm.edu)). For more information on the campus policy regarding sexual misconduct, see: <https://oeo.unm.edu/title-ix/index.html>

Citizenship and/or Immigration Status: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration’s welcome is found on our website: <http://undocumented.unm.edu/>.

Respectful and Responsible Learning: We all have shared responsibility for ensuring that learning occurs safely and equitably. UNM has important policies to preserve and protect the academic community, especially policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<https://pathfinder.unm.edu>) and the *Faculty Handbook* (<https://handbook.unm.edu>). Please ask for help in understanding and avoiding plagiarism or academic dishonesty, which can both have very serious consequences.

Support in Receiving Help and in Doing What is Right: I encourage students to be familiar with services and policies that can help them navigate UNM successfully. Many services exist to help you succeed academically and to find your place at UNM, see [students.unm.edu](http://students.unm.edu) or ask me for information about the right resource center or person to contact. UNM has important policies to preserve and protect the academic community, especially policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<https://pathfinder.unm.edu>) and the *Faculty Handbook* (<https://handbook.unm.edu>) Please ask for help in understanding and avoiding plagiarism or academic dishonesty, which can both have very serious disciplinary consequences.



•••• Fall 2024 Course Schedule ••••

Week	Date Mon. & Wed.	Chapter: Topic	Items Due	Due Date @ 11:59pm
1	Aug. 19 Mon.	Class Introductions/ 1: Study of Life Book sections to read for Ch 1: 1.1, 1.2, 1.3	Prep 1: Ch 1	Fri. 8/23
	Aug. 21 Wed.	1: Scientific Method	Intro. Online Prep Intro. Online Follow Up <i>Discussion 1-Intro.</i> Attendance 1	Sun. 8/25 Sun. 8/25 Fri. 8/23 Fri. 8/23
2	Aug. 26 Mon.	2: Basic Chemistry Book sections to read for Ch 2: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8	Prep 2: Ch 2	Tues. 8/27
	Aug. 28 Wed.	2: Molecules of Life I	Follow Up 1: Ch 1 Attendance 2 <i>Discussion 2-Time Management/Study Habits</i>	Sun. 9/1 Fri. 8/30 Fri. 8/30
3	Sept. 2 Mon.	<b>No Class- Labor Day</b>		
	Sept. 4 Wed.	2: Molecules of Life II-DNA Structure <i>Review 1 Ch 1, 2 Practice</i> Sept. 8 Last day to drop class without "W" with 100% tuition refund on LoboWeb.	Follow Up 2: Ch 2 Attendance 3 <i>Discussion 3-Imposter Syndrome</i>	Wed. 9/4 Fri. 9/6 Fri. 9/6
4	Sept. 9 Mon.	<b>Exam 1 (Ch 1 &amp; 2)</b>	Prep 3: Ch 3	Sun. 9/8
	Sept. 11 Wed.	3: Cell Biology Book sections to read for Ch. 3: 3.1, 3.2, 3.3, 3.4	Attendance 4	Fri. 9/13
5	Sept. 16 Mon.	3: Cell Structure	<i>Discussion 4-Reflection 1</i>	Fri 9/20
	Sept. 18 Wed.	3: Cell Structure	Follow Up 3: Ch 3 Attendance 5	Sun. 9/22 Fri 9/20
6	Sept. 23 Mon.	4: Cell membrane Book sections to read for Ch. 4: 4.1, 4.2, 4.3	Prep 4: Ch 4	Sun. 9/22
	Sept. 25 Wed.	4: Cell membrane <i>Review 2 Ch 3, 4 Practice</i>	Attendance 6 <i>Discussion 5-Career Admission</i> Follow Up 4: Ch 4	Fri. 9/27 Fri. 9/27 Mon. 9/30
7	Sept. 30 Mon.	<b>Exam 2 (Ch 3 &amp; 4)</b>		
	Oct. 2 Wed.	6: Energy and Enzymes I Book sections to read for Ch. 6: 6.1, 6.2, 6.3, 6.4 <b>Case Study 1</b>	Prep 5: Ch 6 Attendance 7	Tues. 10/1 Fri. 10/4
8	Oct. 7 Mon.	6: Energy and Enzymes II	Follow Up 5: Ch 6	Sun. 10/6
	Oct. 9 Wed.	7: Cell Respiration Book sections to read for Ch. 7: 7.1, 7.2, 7.3, 7.4	Prep 6: Ch 7 Attendance 8	Tues. 10/8 Mon. 10/11

\*I reserve the right to make necessary changes.



••••• Course Schedule •••••

Week	Date Mon. & Wed.	Chapter: Topic	Items Due	Due Date @ 11:59pm
9	Oct. 14 Mon.	7: Cellular Respiration	<b>Case Study 1</b>	Fri. 10/17
	Oct. 16 Wed.	7: Cellular Respiration <i>Review 3 Ch 6, 7 Practice</i>	<i>Discussion 6-Midsemester Self Evaluation Attendance 9</i>	Fri. 10/20 Fri. 10/18
10	Oct. 21 Mon.	<b>Exam 3 (Ch. 6 &amp; 7)</b>	Follow Up 6: Ch 7	Mon. 10/21
	Oct. 23 Wed.	25: DNA Replication <i>Book sections to read for Ch. 25: 25.1, 25.2, 25.3, 25.5</i>	Prep 7: Ch 25 <i>Discussion 6-Career Admission Attendance 10</i>	Tues. 10/22 Fri. 10/27 Fri. 10/25
11	Oct. 28 Mon.	25: Gene Expression	<i>Discussion 7-Guiding Principles</i>	Fri. 11/1
	Oct. 30 Wed.	25: Mutations <b>Case Study 2</b>	Attendance 11 Follow Up 7: Ch 25	Fri. 11/1 Sun. 11/3
12	Nov. 4 Mon.	5: Cell Cycle <i>Book sections to read for Ch. 5: 5.1, 5.2, 5.3, 5.4</i>	Prep 8: Ch 5	Sun. 11/3
	Nov. 6 Wed.	5: Cell Division <i>Nov. 8 Last day to drop class without Dean's Permission</i>	Attendance 12	Fri. 11/8 Fri. 11/10
13	Nov. 11 Mon.	5: Meiosis <i>Review 4 Ch 25 &amp; 5 Practice</i>	Follow Up 8: Ch 5	Sun. 11/10
	Nov. 13 Wed.	<b>Exam 4 (Ch. 25 &amp; 5)</b>	<i>Discussion 8- Teams Attendance 13</i>	Fri. 11/17 Fri. 11/15
14	Nov. 18 Mon.	23: Genetic Inheritance I <i>Book sections to read for Ch. 23: 23.1, 23.2, 23.3, 23.4</i>	Prep 9: Ch 23 <b>Case Study 2</b>	Sun. 11/17 <b>Fri. 11/22</b>
	Nov. 20 Wed.	23: Genetic Inheritance II	Attendance 14 <i>Discussion 9-Reflection 2 Follow Up 9: Ch 23</i>	Mon. 11/22 Fri. 11/22 Sun. 11/24
15	Nov. 25 Mon.	24: Chromosomal Inheritance I <i>Book sections to read for Ch. 24: 24.1, 24.2</i>	Prep 10: Ch 24	Sun. 11/24
	Nov. 27 Wed.	24: Chromosomal Inheritance II <i>Nov. 12 UNM Course Feedback open UNM Canvas</i>	Attendance 15	Mon. 12/2
16	Dec. 2 Mon.	24: Chromosomal Inheritance III	Follow Up 10: Ch 24	Sun. 12/1
	Dec. 4 Wed.	11: Human Organization <i>Book sections to read for Ch. 11: 11.3, 11.5 Dec. 12 UNM Course Feedback close at 5pm</i>	Attendance 16 <i>Discussion 10-Motivation</i>	Fri. 12/6 Fri. 12/6
<b>Final</b>	<b>Dec. 11 Wed.</b>	<b>Cumulative Final Exam 1:30-3:30pm</b>	<b>Review 4 Final Exam</b>	<b>Wed. 12/13 Wed. 12/13</b>

\*I reserve the right to make necessary changes.