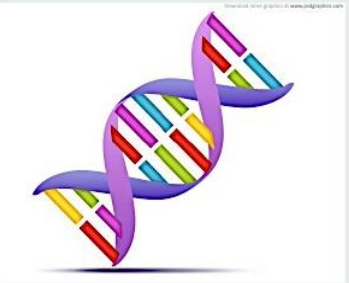
Note: This course will not count toward your UNM degree if you are thinking about majoring in Science, Technology, Engineering, and Math (STEM) fields

VALENCIA

Spring 2022

Section 550 (3Crd)
CRN# 50323
REMOTE & UNM Learn

Biology 1110: Intro. to Biology Non-STEM Majors Syllabus



COURSE INFORMATION

This course introduces non-STEM majors to basic biological concepts including, but not limited to, the characteristics of life, chemistry, cell biology, genetics, evolution, biodiversity, and ecology.

DR. T'S COURSE DESCRIPTION

I love teaching Biology. First, we will start off with a broad overview that lists the characteristics of life and the organization of life. The characteristics of life will serve as our narrative while we learn more about biology. We'll learn about the chemistry of cells and how everything we eat are composed of cells. Have you ever wondered when you are eating fruit, meat, or vegetables that you are eating cells that contain DNA? Yes, serve me a plate of DNA. Yum! Then, we will learn about the organelles of cells and how cells obtain energy. Think of them as energy-producing little bodies. Next- we will discuss our DNA and how it determines what we look like and how DNA contributes to the continuation of life with reproduction and potential adaptation of life to the environment. The last quarter of the semester we will learn more about life's origin and Biodiversity and the importance of evolution to biology.

Let's get started.

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COURSE LEARNING OUTCOMES (CLO)

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

Introduction to Biology **CLO 1**: Explain the central ideas and process of biology. **CLO 2:** Explain the value of the scientific method.
Introduction to Chemistry **CLO 3**: Explain how chemical and physical principles apply to biological processes at the cellular level.
Cells **CLO 4**: Understand the basic concepts of cell biology.
Genetics CLO 5: Understand fundamental processes of molecular biology.
Biodiversity **CLO 6:** Understand the mechanisms of evolution, including natural selection, genetic drift, mutations, random mating, and gene flow. **CLO 7:** Understand that all organisms share properties of life as a consequence of their common ancestry.

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 goal.

Instructor Information

Tammi R. Duncan, Ph.D.

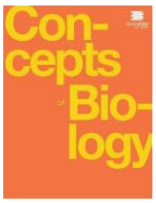
Office: Rm 132, Arts & Sciences Building
Phone: 505-925-8726
Email: tammid31@unm.edu

Drop-in Hours (Office hours):

- Face2Face: Mon. 10:30am-12pm, Tues. 9:30am-10:30am, Wed. 2-3:30pm, Thurs. 9:30am-10:30am & 12:30pm-1:30pm.
- Zoom: Fri. Available by appt. https://unm.zoom.us/j/5736149969
- Password: biology

I grew up riding horses on the Navajo Reservation. I found my passion studying bacteria at Diné College in Shiprock, NM in my first microbiology course.

REQUIRED LEARNING RESOURCES



1. Textbook: Concepts of Biology. This book is available for free in web view and PDF. I strongly recommend downloading a PDF and saving the copy- https://openstax.org/details/books/concepts-biology You can also get the digital version from Amazon for free or a printed copy for a low cost.

2. UNM Learn: https://learn.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, quizzes, tests and/or any changes to the syllabus will be posted on the webpage. Please check regularly.***

3. Technology and computer: In this course, you will need a dependable computer, reliable internet connection, computer speakers and webcam, Microsoft PowerPoint and Word, and Adobe Flash Player.

"If you can dream it, you can do it" — Walt Disney

TIPS FOR SUCCESS

PowerPoint Slides. Use the PowerPoint slides for each chapter to guide your reading and to identify the learning objectives. The Learning objectives should be used to test your knowledge of the material for each chapter.

Study habits. Your study habits that might have worked for you in high school, might have to be adjusted for college. Use metacognition, awareness and understanding of one's own thought process, to help you make adjustments in time and methods of your study habits. It's an ongoing process throughout your educational career. Plan time to review your Biology concepts everyday. I was encouraged as an undergraduate to think of attending college as an 8am-5pm job. The more you practice reanswering your concepts and learning objectives, the more you can remember it. Look at figures and read the chapter. It may take more than one reading to understand the material presented. Learn the vocabulary.

Drop-in hours. I am available to help you succeed in the class; stop by my office for face-to-face Drop-in hours or online via Zoom Drop-in (Zoom- Meeting ID: 573 614 9969 PW:biology) and I can clarify information, coach you with homework, or bring up other methods besides flashcards to help you remember the material.

Learning Center. The learning center has tutors ready to help Biology 1110 students. To register and set up an appointment, go to the following link: https://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html

Study groups. Form online study groups or use the 6 ft guidelines at the UNM Valencia library. I always found that by hearing my explanation of the concept in my own words to my classmate helps me remember the information.

TIPS FOR SUCCESS continue…
Suggestions from students who have taken the class before.

Potential study methods

1. Record yourself reading the textbook and actively (meaning you are picturing what the words are describing) listen to it later.

2. You can also audio record the information on your flashcards to help you remember.

3. You can write a story in your own words about a mechanism to help you remember.

4. You can imagine you are tiny and picture yourself in one cell. Imagine you are on a trip through the cytoplasm, visualizing the mitochondria producing ATP or energy, and see how the DNA is being made.

5. You can use your body to picture things. For example, to picture the H_2O water molecule, your hands can be the Hydrogens and your head can be the Oxygen. Your head is bigger than your hands, so it would have more electrons "hanging out" near it, therefore it is more electronegative.

6. You can also imagine your dog as a bacteria and his/her tail as a flagellum. Then you can take sticky notes and start labeling him/her. Or you can draw a big cell on a large piece of paper (or tape six notebook pieces of paper together) and use sticky notes to label the parts. In this practice- you can color code the parts that are in plants with green, the parts for animal cells in pink, and the parts for bacterial cells in black.

7. You can draw logos to describe a mechanism.

8. You can rewrite your notes or draw your notes out.

9. You can draw a Concept Mapping: Chapter map of what you are going to learn for the Chapter to help you see the big picture and orient you while you read the material.

10. You can use the Learning objectives at the end of the powerpoints as your chapter outline and while you read you can answer the questions as you go.

11. You can create analogies to help you remember the concept.

12. You can pronounce terms with a specific kind of pronunciation that will help you remember. For example, microtubules are small, hollow cylinders about 25um in diameter and 0.2-25um in length. I think of hollow as something that echos… so I would pronounce microtubules as an echo…. (sounds gets fainter and fainter). MICROTUBULES-MICROtubules-microtubules… written as a way that would get fainter and fainter.

13. Draw pictures in the word. For example, a nonstop mutation is mutation that changes an amino acid to a STOP codon. You can draw one of the o's as a stop sign in the word, nonstop.

What's nice about making your own study tools is that you can save it and re-use it to study for your final and it could be one way to have fun. Use colors, color pencils, stick notes, music, smells, sounds. ~Dr. T

COURSE POLICIES

This is a three credit-hour asynchronous/remote course. Class does not meet face to face. It is 16 weeks long. Students are expected to complete readings, homework, study, Assignment Reviews, quizzes, and exams, on their own by posted deadlines. This class will require self motivation and holding self accountable for submitting completed assignments and assessments by the deadline. As your instructor, I will guide you through the material and please visit me in my face to face or online Zoom drop-in hours.

Participation. You must complete the weekly discussion board posts in order to receive participation points 1 point/discussion. You also can receive points toward your final exam score by attending Zoom drop-in hours at 1pt/visit for a total of 5 points.

Make-up Exams. Make-up exams will be given to students with a documented emergency. You must notify the instructor prior to the day of the missed exam. Due dates are firm.

Quizzes. Make-up quizzes will be given to students with a valid excuse/emergency. You must notify the instructor prior to the day of the missed quiz. Due dates are firm.

Homework. These will be assigned weekly to help you master the learning objectives. Make-up homework will be given to students with valid excuse/emergency. Due dates are firm. Be sure to include your name on your homework. One point will be deducted if not.

Assignments Review. There will be three Assignments Reviews over the chapters for each Exam. These will help you practice and apply the knowledge that you have gained. One will be due before each regular exam. Be sure to include your name on your homework. One point will be deducted if not.

Late assignment/homework. Late assignments/homework will only be accepted within the first week following the due date. There will be a 50% reduction in grade. I will not accept assignments after the first week.

Withdrawal. Last day to withdraw from class without a "W" on your transcript is Feb. 4, 2022 at 5:00pm using UNM Learn. Last day to withdraw from class with out Dean's signature/permission is Apr. 15, 2022.

Disruptive behavior. Please avoid any disruptive behaviors in online communications. For online communication and interactions follow the rules of netiquette and dress for the meeting like you are attending class.

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 two warnings with the assignment given a zero. A third time you will be dropped from the course and your Biology teacher and UNM Science & Wellness Department Chair notified.

Netiquette. The rationale of providing **Rules of Netiquette** for students is to provide guidelines for online behavior and communication between you and your classmates.
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. Email 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 "Bio 1110" in your subject line to me and a formal salutation.

Discussion Forum Netiquette

Include "topic-your name" in subject line.
Write concise paragraph (2-3 sentences) on the topic.
Write in your own words 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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THINGS TO KEEP IN MIND

Accommodations:

If you have a documented disability and you need a reasonable accommodation made for you in this course, please consult with me immediately or the campus tutoring center as soon as possible so we can meet your needs suitably and quickly.

Academic Dishonesty: 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 otherwise fails to meet the 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 includes, but not limited to, dishonesty in quizzes, tests, or assignments; Copying and pasting answers from Google; 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.
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COVID-19. You can prevent the spread of the Coronavirus to your family, fellow students, and your community.

Protocol as of 1/17/2022 for vaccinated individuals testing positive (No quarantine for exposure).

1. Upload your information to the Self-Reporting of Positive Covid-19 Diagnosis (https://lobowebapp.unm.edu/apex_ods/f?p=135:LOGIN_DESKTOP:16863389260097:::::).
2. Provide documentation (The Covid PCR Test) to me via email (you are not exempt from assignments or exams).
3. Isolate for 5 days- Day 0 is the onset of symptoms or positive viral test (The Covid PCR Test).

COVID-19 Symptoms and Positive Test Results:

Please do not come to a UNM campus if you are experiencing symptoms of illness or have received a positive COVID-19 test (even if you have no symptoms). Contact me and let me know that you should not come to class due to symptoms or diagnosis. Students who need support addressing a health or personal event or crisis can schedule an appointment with a counselor at UNM Valencia through the PASOS Resource Hub. To schedule an appointment call (505) 925-8591.

UNM Requirement on Masking in Indoor Spaces

All students, staff, and instructors are required to wear face masks in indoor classes, labs, studios and meetings on UNM campuses, see the masking requirement. Students who do not wear a mask indoors on UNM campuses can expect to be asked to leave the classroom and to be dropped from a class if failure to wear a mask occurs more than once in that class. Students and employees who do not wear a mask in classrooms and other indoor public spaces on UNM campuses are subject to disciplinary actions. Medical/health grade masks are the best protection against the omicron variant and these masks should be used, rather than cloth. *I strongly recommend that you keep your masks on at all times.

UNM Administrative Mandate on Required Vaccinations

UNM requires COVID-19 vaccination and a booster for all students, faculty, and staff, or an approved exemption (see: UNM Administrative Mandate on Required Vaccinations). Proof of vaccination and booster, or a medical, religious, or online remote exemption, must be uploaded to the UNM vaccination verification site. Failure to provide this proof may result in a registration hold and/or disenrollment for students and disciplinary action for UNM employees.

Booster Requirement: Individuals who received their second dose of a Pfizer or Moderna vaccine on or before June 15, 2021, or their single dose of a Johnson & Johnson vaccine on or before October 15, 2021, must provide documentation of receipt of a booster dose no later than January 17, 2022. Individuals who received their second dose of a Pfizer or Moderna vaccine after June 15, 2021 or who received their single dose of Johnson & Johnson after November 15, 2021 must provide documentation of receipt of a booster within four weeks of eligibility, according to the criteria provided by the FDA (6 months after completing an initial two-dose Moderna vaccine, 5 months after completing the Pfizer sequence, and 2 months after receiving a one-dose Johnson and Johnson vaccine).

Exemptions: Individuals who cannot yet obtain a booster due to illness should request a medical, religious, or online remote exemption (which may have an end date) and upload this to the vaccination verification site.

Medical and religious exemptions validated in Fall 2021 (see your email confirmation) are also valid for Spring 2022 unless an end date was specified in the granting of a limited medical exemption. Students must apply for a remote online exemption every semester.

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). 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). For more information on the campus policy regarding sexual misconduct, see: https://oeo.unm.edu/title-ix/index.html

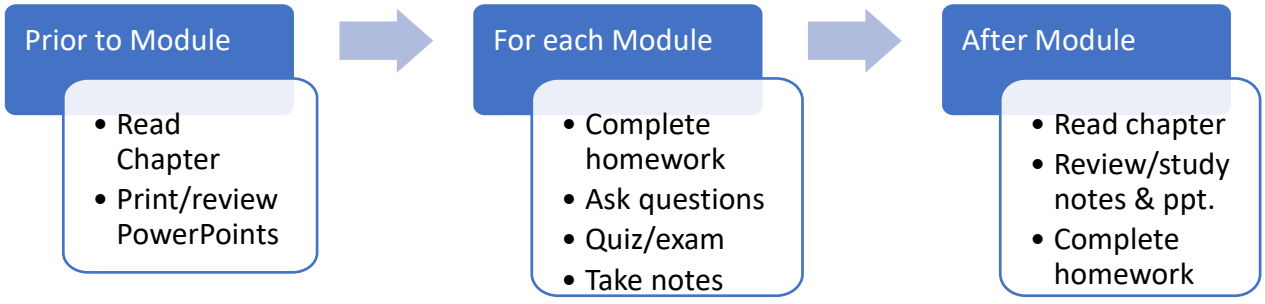
Citizenship and/or Immigration Status: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused 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/.

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 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.

Land Acknowledgement: (see https://diverse.unm.edu on appropriate use) Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

DEVELOP GOOD STUDY HABITS. DON'T WAIT UNTIL THE LAST MINUTE.

Review notes and readings everyday.



GRADING Policy: Grade earned for UNM Valencia Remote BIOL 1110 will be worth 100% on your performance on completing the listed assignments.

Quizzes: Every week you will take a quiz. Each of these quizzes are worth 8pts and their total is 80pts. Quizzes are timed (20min). No notes, textbook or online resources.

Exams: There are three exams. Two of these exams will be counted toward your grade. Each of these exams is worth 50 pts and their total is 100 pts with dropping the lowest score. You will be given one hour to complete the exam. No notes, textbook, or online resources.

Homework: Homework are practice question sets that are each worth 8pts and their total is 80pts. To get the points you must demonstrate that you are attempting to understand the information. The goal of the homework is to give you more practice and a better understanding of current material. The Introduction Homework helps you practice submitting HW.

Reviews: There are three Reviews. Each of these Reviews are worth 15 pts each and their total is 45pts. Reviews are due before your exam.

Discussion Board: There are 15 Discussion Board posts that are each worth 1pt and their total is 15pts. These Discussion board posts help you reflect on your class performance, practice time management, and begin career planning.

Final: The Final is a 100pts exam at the end of the semester. The Final will be cumulative. You will have 1.5 hours to take this exam online.

	Points per assignment:	Total Points:	Percentage of overall grade:
Intro. Online Homework (1)	5pts	5pts	~1%
Intro. Online Quiz (1)	5pts	5pts	~1%
Discussion Board (15)	1pt	15pts	~3%
Homework (10)	8pts	80pts	~19%
Quizzes (10)	8pts	80pts	~19%
Review (3)	15pts	45pts	~10%
Exams (2 of 3)	50pts	100pts	~23%
Final Exam (1)	100pts	100pts	~23%
TOTAL		**430 pts**	**100 %**
A+ 100% or higher **A** 91-99% **A-** 90%	**B+** 88-89% **B** 81-87% **B-** 80%	**C+** 78-79% **C** 71-77% **C-** 70%	**D+** 68-69% **D** 61-67% **D-** 60% **F** <60%

COURSE SCHEDULE

Week	Date	Chapter: Topic	Items Due	Due Date @ 11:59pm
1	1/18 to 1/22	Introduction to Online Class HW, Quiz, Discussion Board Submission	Discussion 1	Fri. 1/21
2	1/23 to 1/29	Ch 1: Introduction to Biology (Feb. 4 Last day to drop class without "W")	Intro. Online HW Intro. Online Quiz Discussion 2	Wed. 1/26 Thurs. 1/27 Fri. 1/28
3	1/30 to 2/5	Ch 2: Chemistry of Life	Homework 1: Ch 1 Quiz 1: Ch 1 Discussion 3	Wed. 2/2 Thurs. 2/3 Fri. 2/4
4	2/6 to 2/12	Ch 3: Cell Structure & Function	Homework 2: Ch 2 Quiz 2: Ch 2 Discussion 4	Wed. 2/9 Thurs. 2/10 Fri. 2/11
5	2/13 to 2/19	Review 1 (Ch. 1, 2, & 3) **Exam 1 (Ch. 1, 2, & 3)**	Homework 3: Ch 3 Quiz 3: Ch 3 Discussion 5	Wed. 2/16 Thurs. 2/17 Fri. 2/18
6	2/20 to 2/26	Ch 4: How Cells Obtain Energy Ch 5: Photosynthesis (Section 5.1 only)	Review 1 Exam 1 Discussion 6	Wed. 2/23 Thurs. 2/24 Fri. 2/25
7	2/27 to 3/5	Ch 9: DNA Structure & Function	Homework 4: Ch 4/5 Quiz 4: Ch 4/5 Discussion 7	Wed. 3/2 Thurs. 3/3 Fri. 3/4
8	3/6 to 3/12	Ch. 6: Cell Reproduction	Homework 5: Ch 9 Quiz 5: Ch 9 Discussion 8	Wed. 3/9 Thurs. 3/10 Fri. 3/11
9	3/13 to 3/19	UNM SPRING BREAK	No Homework, No Quiz, No Discussion	
10	3/20 to 3/26	Review 2 (Ch. 4/5.1, 9, & 6) **Exam 2 (Ch. 4/5.1, 9, 6)**	Homework 6: Ch 6 Quiz 6: Ch 6 Discussion 9	Wed. 3/23 Thurs. 3/24 Fri. 3/25
11	3/27 to 4/2	Ch. 7: Cellular Basis of Inheritance	Review 2 Exam 2 Discussion 10	Wed. 3/30 Thurs. 3/31 Fri. 4/1
12	4/3 to 4/9	Ch. 8: Patterns of Inheritance (Apr. 15 Last day to drop class without Deans Permission)	Homework 7: Ch 7 Quiz 7: Ch 7 Discussion 11	Wed. 4/6 Thurs. 4/7 Fri. 4/8
13	4/10 to 4/16	Ch. 11: Evolution and its Process	Homework 8: Ch 8 Quiz 8: Ch 8 Discussion 12	Wed. 4/13 Thurs. 4/14 Fri. 4/15
14	4/17 to 4/23	Review 3 (Ch. 7, 8, 11) **Exam 3 (Ch. 7, 8, 11)**	Homework 9: 11 Quiz 9: Ch 11 Discussion 13	Wed. 4/20 Thurs. 4/21 Fri. 4/22
15	4/24 to 4/30	Ch. 12: Diversity of Life 4/29 Course Evaluations open	Review 3 Exam 3 Discussion 14	Wed. 4/27 Thurs. 4/28 Fri. 4/29
16	5/1 to 5/7	Final Exam Review Week 5/6 Course Evaluations close at 5pm	Homework 10: Ch 12 Quiz 10: Ch 12 Discussion 15	Wed. 5/4 Thurs. 5/5 Fri. 5/6
Final	5/8 to 5/14	**Cumulative Final Exam**	Final Exam	Tues. 5/10

***I reserve the right to make necessary changes.**

Grade Breakdown Chart

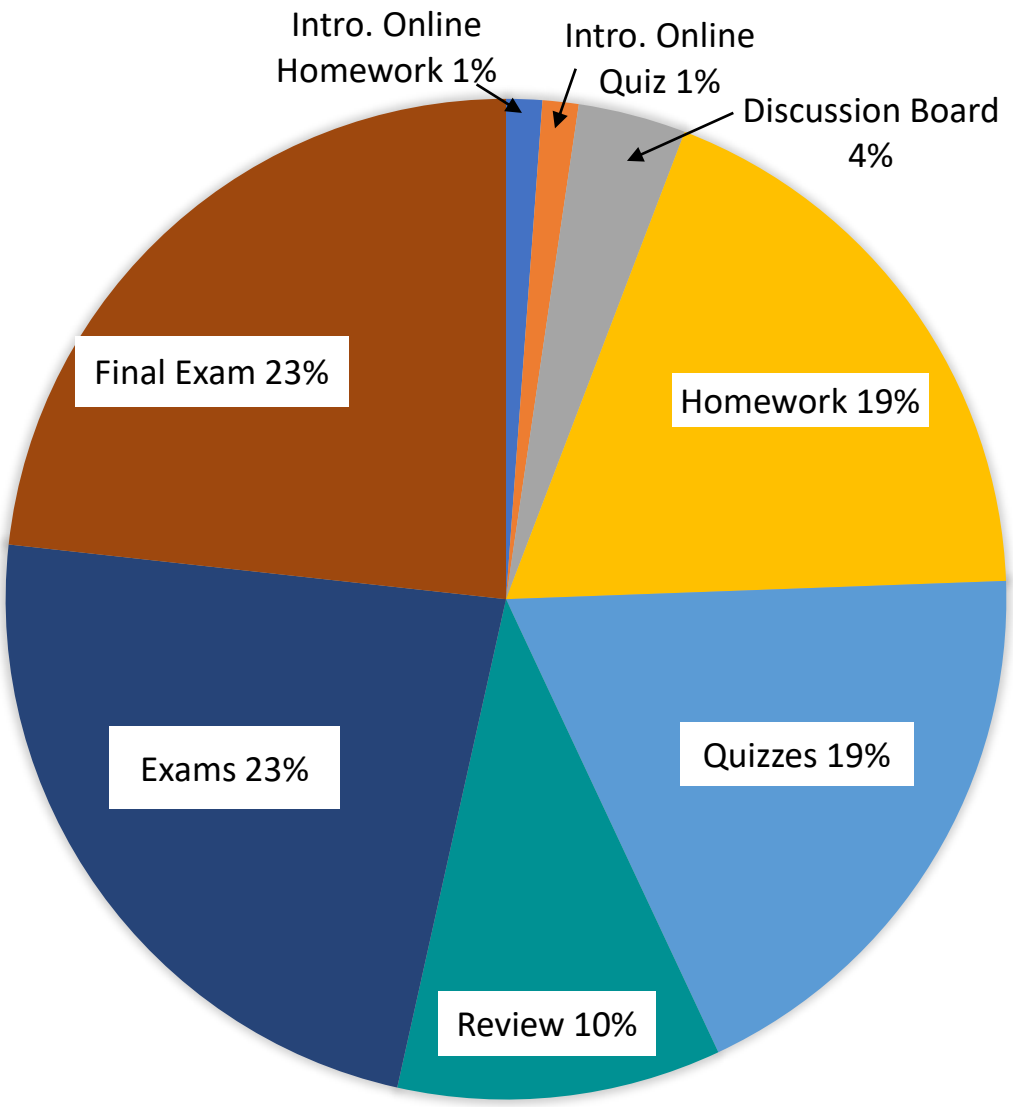


Figure 1. Grade breakdown of points in percentages. Notice that many of your points will be from quizzes, exams, and final exam. However, the homework and the reviews are also important. To pass the course you will have to receive a 71% C or better. Try your best and contact me tammid31@unm.edu for guidance if you need help.