



## Biology 190 lab - Fall 2021 - Michelson

### *Principles of Modern Biology I - Laboratory*

#### COURSE INFORMATION

This laboratory course accompanies the BIOL 190 lecture and cannot be taken without concurrently enrolling in a lecture section. Many of the laboratory exercises are designed to reinforce principles from lecture; however, in many cases the material in the lab may not coincide with lecture material. Therefore it is important for the student to read the laboratory manual, and any pertinent areas of the course textbook, before coming to lab each week.

#### TEXTBOOKS

Lab exercises are downloaded from the Canvas shell.

#### SAFETY

The microbes used in this lab are NOT pathogenic to a normal individual. The chemicals used in this lab are not dangerous if handled appropriately. All the same, it is always prudent to treat things carefully. Eating, is forbidden in the laboratory, however you may eat in the hallway during lulls in activity. Extreme heat sources are utilized as well as chemicals that stain or possibly burn. Be prepared for messes and avoid fires. You might consider covering any body part you want to keep stain, burn and microbe free. Students are not allowed in the laboratory without an instructor present. You must be enrolled in the class to be in the laboratory at any time.

#### GRADING AND PARTICIPATION

**The quiz points will be nullified if the student does not participate in the laboratory exercise or leaves the laboratory early.** Satisfactory participation is defined not merely as attendance, but rather, includes involvement in and understanding of the exercises.

When absolutely necessary students may attend another lab section for a given week. The student must have permission from the lab instructor, and inform the instructor of two things: 1) that they are a visitor, and 2) which lab section they normally attend. The instructor who was visited is asked to forward the graded quiz points to the student's regular instructor ASAP. There will be no opportunity to make up missed labs once the week has passed.

Each quiz covers the material investigated during the previous weeks lab. 1 or 2 questions may also be taken

#### INSTRUCTOR

##### **Dr. Rhett Michelson**

Office: Cheyenne S221A  
Phone: 651-4569 (email is preferred and more likely to get a fast response)  
email: [rhett.michelson@csn.edu](mailto:rhett.michelson@csn.edu)  
Webpage: <http://learnbiology.org>

##### Office hours:

Mon/Wed: 5:00 - 6:00 p.m.  
Tue/Thu: 3:00 - 4:00 p.m.  
Mon: 7:30 - 8:30 p.m.

No appointment necessary during office hours. If you cannot meet during these times please call or write to set up a time.

##### LECTURE SECTIONS:

Cheyenne campus room S207  
T/Th 6:00-7:20 p.m. (section 2004)

##### LABORATORY SECTIONS:

Cheyenne campus room S238  
T 7:30-10:30 pm (section 2901)  
Th 7:30-10:30 pm (section 2902)

All students must be enrolled in the lecture section and one of the laboratory sections. Once enrolled, students may not switch from one laboratory section to another without special permission from the laboratory instructor.

from the lab scheduled for the day of the quiz to ensure that you have thoroughly read that lab prior to conducting it. Note that a term paper worth 85 points is required in the lab. Requirements and format are described in the lab manual and will be discussed further in the lab.

The lab generates points that are worth about 30% of the total grade. There are 11 scheduled participatory labs with the grade being determined as follows:

<b>Activity</b>	<b>Points *</b>	<b>Total</b>
Quizzes†	15 pts (x 9)	135 pts
Literature Review paper**	100 pts	100 pts
Assessment	15	15
<b>Total</b>		<b>250 pts</b>

\* Questions, problems, or challenges to quiz questions must be presented within one week of the day on which the quiz was returned to the student. All assignment grades will be considered final after that time.

\*\* You must turn in the graded first draft of the literature review paper with the scoresheet to receive any credit for the final draft.

† Full credit for the quizzes is only possible if the student participates in the entire laboratory exercise. The lowest quiz score of the semester is dropped.

#### PUBLIC HEALTH DIRECTIVES

Students must follow all active CSN public health directives while enrolled in this class, such as properly worn face coverings when required in classrooms as well as inside campus buildings. CSN public health directives are found at <https://at.csn.edu/covid-19>. Students who do not comply with these directives will be asked to leave the classroom. Refusal to follow the guidelines may result in further disciplinary action according to the CSN Student Conduct Code [https://www.csn.edu/sites/default/files/documents/student\\_conduct\\_code\\_policy\\_1.pdf](https://www.csn.edu/sites/default/files/documents/student_conduct_code_policy_1.pdf), including being dropped from the course.

#### CANVAS

CANVAS is CSN's Learning Management System (LMS). If you are a new student at CSN or you have not set up your CSN account, you will need to activate your CSN account before you can login to CANVAS. Follow the directions below. If you have already activated your account or have used CANVAS before skip to the "To access CANVAS site" directions.

To activate your CSN account:

1. Go to <https://csnstudent.csn.edu/stuverify/>
2. Fill in your NSHE ID, Last name and pin number (last 4 digits of your social security number)
3. Click the "Next" button and follow the directions to activate your account and set up your password.

To access CANVAS site:

1. Go to the CSN homepage (<http://www.csn.edu>)
2. On the left side of the page click the link titled "Online Campus."
3. In the upper right hand corner of the page click the button that says "LOGIN NOW."
4. This will take you to CSN ONLINE CAMPUS page. You should bookmark this page for later use.
5. Enter your user name and password. Your user name is your ten digit NSHE #. Your password is the password you have set up when you activated your account.
6. Once you have logged on, you can find all of the courses you are enrolled in under the 'Courses' drop down menu at the top of the page.

## RESEARCH PAPER

Most of the information about the format of the laboratory research paper can be found at: on Canvas but more information, and possibly assignments, will be added during class.

- A digital copy of the research paper must accompany the hard copy and the graded first submission, with scoresheet, must accompany the final draft for credit. This assignment is not accepted after the due date.

**Plagiarism: Plagiarism (especially within the Review Paper assignment) constitutes academic fraud and is dishonest. It is considered as open cheating and any assignments containing plagiarized material will receive 0 points, and further disciplinary action may also be taken against the student.**

## CLASS POLICIES

Phones and beepers must be turned off during class. Please arrive on time, and avoid coming and going during class. Food is not permitted in the classroom, but caffeinated beverages are encouraged!. **During class no electronic devices are permitted except for those authorized by your instructor. This is not a public space. You do not have my permission to photograph or collect video**, although audio recordings are allowed. No internet publication of lecture material is permitted under any circumstances (e.g. YouTube, Facebook, etc.) and is illegal under Nevada law.

No electronic devices of any kind may be used during exam and quiz sessions and must be completely stowed away. You may be asked to remove any large-billed hats during the examination period.

If the instructor is late, you must wait at least 20 minutes from the usual start time before assuming class will be canceled.

Cheating, plagiarism, and other acts of academic dishonesty are held as serious offenses. Instructors have the responsibility to report any such incident in writing to the Vice President for Academic Affairs. Serious penalties may be imposed which, depending on the nature of the incident, could range from loss of points to permanent expulsion from the class or the college. You can find more information about CSN's Academic Integrity Policy at <https://at.csn.edu/documents/student-academic-integrity-policy>

## STUDENT SERVICES

Students' rights and responsibilities pertaining to CSN policies and services are found in the College Catalog and on the CSN website. (<https://www.csn.edu/policies-procedures>)

## COUNSELING/ADVISING

Helps students select courses, complete degree audits, obtain transfer information, and provide personalized assistance in developing educational and vocational plans appropriate to personal interests and abilities. If you are a returning student go to <https://www.csn.edu/academic-counseling>, if you are a new student go to <https://www.csn.edu/future>.

## CENTERS FOR ACADEMIC SUCCESS

Centers for Academic Success (CAS) and Office of Technology Services (OTS) partner to provide quality academic and technology assistance in the Learning Commons on the Henderson and North Las Vegas campuses and all Charleston campus centers. We offer academic support services to all students enrolled in for-credit courses at CSN. Tutors are available for most general education courses and some historically challenging courses. Academic learning support includes assistance with learning strategies, reading, writing, oral presentations, math, and science. CAS tutors also provide assistance for placement test preparation in reading, writing, and math. CAS is open Monday through Sunday to be more accessible to the entire student population. You may visit [www.csn.edu/centers-academic-success](http://www.csn.edu/centers-academic-success) for details on locations and hours. You may also contact us at one of our

offices: Charleston Centers (651- 5732), North Las Vegas Learning Commons (651-4232), Henderson Learning Commons (651- 3125).

#### MYCOYOTEPLAN

The College of Southern Nevada uses MyCoyotePLAN (Personal Learning & Advising Network) as a communication tool between students, faculty and campus support services. Emails are sent to CSN student email accounts from MyCoyotePLAN regarding course grades or academic performance. Instructors or advisors may schedule meetings with students to discuss course progress or refer students to campus services (subject tutoring, writing assistance, and academic coaching). Appointments with Advisors, Counselors and some support services will be made through MyCoyotePLAN. To access MyCoyotePLAN, log in to GoCSN and click the MyCoyotePLAN tile. To learn more about MyCoyotePLAN, visit “MyCoyotePLAN for Students” at [www.csn.edu/crm](http://www.csn.edu/crm). If you need assistance with MyCoyotePLAN email [mycoyoteplanhelp@csn.edu](mailto:mycoyoteplanhelp@csn.edu).

#### TRIO

One stop shop for first-generation college, financial aid-eligible and disabled students offering tutoring, academic advising, career exploration, college-transfer assistance, and development of college success strategies. Go to <https://www.csn.edu/trio>

#### LIBRARY SERVICES

College Library Services offers ongoing research workshops throughout the semester. Bring your topic or assignment to one of the workshops on the basics of locating and citing quality information and receive in-depth assistance with a librarian. Go to <https://www.csn.edu/library>

#### ACADEMIC COACHING SERVICES

Trained specialists/advocates help students assess personal strengths and limitations, determine the root of a variety of academic struggles, develop college success strategies, implement action plans, learn to navigate the educational system, benefit from campus and community resources, and connect to campus life. Go to <https://www.csn.edu/academic-coaching-services>

#### FINANCIAL AID

Provides information and assistance to students applying for financial aid programs such as grants, work study, scholarships and loans. Apply for federal financial aid ([www.fafsa.gov](http://www.fafsa.gov)) early every year. Go to <https://www.csn.edu/financial-aid>

#### COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS)

The Counseling and Psychological Services (CAPS) offers short-term, problem-focused counseling to CSN students who may feel overwhelmed by the responsibilities of college, work, family, and relationships. Clinicians are available to help students cope with stresses and personal issues that may interfere with their ability to perform in school. The service is provided confidentially and free to currently enrolled students. To schedule an appointment, please call CAPS at WC (702) 651-5518, at NLV (702) 651-4099, and at HN (702) 651-3099.

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact Counseling & Psychological Services (CAPS), for a list of resources and support.

#### VETS CENTER

Certifies enrollment of veterans and their dependents using veterans' educational benefits; acts as liaison with the Veterans Affairs Office. Recommend that eligible students visit the office immediately after submitting the student admissions application. Go to <https://www.csn.edu/vets-center>

DISABILITY RESOURCE CENTER

Disability Resource Center (DRC) – The College of Southern Nevada is committed to making physical facilities and instructional programs accessible to students with disabilities. If you have a disability that may have some impact on your work in this class and for which you may require accommodations, please visit the Disability Resource Center (DRC) so that such accommodations can be considered. All discussions will remain confidential. The Disability Resource Center (DRC) has offices at all three campus locations as the focal point for coordination of services for students with disabilities. If you have a physical, emotional, or mental disability that “substantially limits one or more major life activities (including walking, seeing, hearing, speaking, breathing, learning and working),” and will require accommodation in this class, please contact the DRC at WC (702) 651-5644 , or email at [WCDRCStaff@csn.edu](mailto:WCDRCStaff@csn.edu) at NLV (702) 651-4045, or email at [CYDRCStaff@csn.edu](mailto:CYDRCStaff@csn.edu) and at HNC (702) 651-3795, or email at [HCDRCStaff@csn.edu](mailto:HCDRCStaff@csn.edu). For Deaf and Hard of Hearing Services contact (702) 651- 4448, or email at [Deaf.HH.Services@csn.edu](mailto:Deaf.HH.Services@csn.edu). Students that receive accommodation letters, please meet with me to discuss the provisions of those accommodations as soon as possible.

SYLLABUS IS SUBJECT TO CHANGE

This document is subject to change with advance notice by the instructor, either digitally or in-person.

## Schedule for Biology 190 Lab, Fall 2021 - Michelson

Week	Laboratory Topic	Quiz Points	Paper Points	Total Points
Aug 30	NO LABS FIRST WEEK <i>Complete pre-assessment on Canvas</i>	(7.5)†		(7.5)†
Sep 6	NO LABS (Labor Day)			
Sep 13	The Scientific Method	Participation required for following week's points		
Sep 20	Library Visit and Writing Discussion <i>Topic for Research Paper - 5 pts.</i>	15	5	20
Sep 27	Proteins and Chromatography <i>List of Sources Due for Paper - 5 pts.</i>	15	5	20
Oct 4	Microscopy and Cells	15		15
Oct 11	ELISA <i>Outline of Paper Due - 5pts.</i>	15	5	20
Oct 18	Enzymes	15		15
Oct 25	DNA Replication and PCR	15		15
Nov 1	PCR results and DNA purification <b><i>Review Paper Due - 65 pts.**</i></b>	15	65	80
Nov 8	NO LABS (Veteran's Day)			
Nov 15	Photosynthesis	15		15
Nov 22	NO LABS (Thanksgiving)			
Nov 29	Gene Expression/Transformation <i>Complete post-assessment on Canvas</i>	15 (7.5)†		22.5
Dec 6	Transformation results and Final Quiz <i>Revised Paper Due - 20 pts.</i>	15	20	35
	<b>Total Laboratory Points</b>	<b>150*</b>	<b>100</b>	<b>250*</b>

\* Points for the quiz are only possible through **full participation in the lab**. The lowest quiz score is dropped.

\*\* A digital copy must also be submitted.

† To receive any of the 15 points for the assessment quizzes you must complete both.