College Biology I (LS)

BIOL - 1610 001

Course Description

This majors course introduces the essential concepts of biochemistry, molecular biology, cell biology, and genetics. Topics include biological macromolecules, mitosis, meiosis, DNA replication, transcription, translation, regulation of gene expression, metabolism, membrane function, cell signaling, evolution, and genetics. Additional lab component (BIOL 1615) required.

Pre-Requisite(s): MATH 0990 w/C or better, or appropriate placement score; ENGL 0990 w/C grade or better, or appropriate placement score; BIOL 1615 w/C grade or better or BIOL 1615 must be concurrent

Semester: All

Course Prerequisites

MATH-0980 or MATH-0990 with C or higher, or appropriate placement score.

BIOL-1615 (Lab) must be taken concurrently, or previously passed with a C or higher.

Required Textbook or Materials

Title: College Biology I
Subtitle: Custom OER Text for BIOL-1610
Authors: Melissa Hardy
OID: https://slcc.pressbooks.pub/collegebiology1/

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Course Presentation

Welcome to Biology 1610! I am looking forward to meeting you and introducing you to the exciting study of Biology. This course is interesting and fun, but it also requires a lot of work to do well. You should take this course only if you are committed to working hard and keeping up with the workload. You will need to do significant study outside class to do well in this course. If you do so, you will most likely find the class very interesting and fun, rather than overwhelming. For entry into your subsequent Biology or Health Sciences majors courses, you will need to earn a minimum grade of C. These programs are competitive, so the better your grade in this class the more likely you are to be accepted into your program of choice. **My goal is for all of you to pass with a good grade but the grade you earn is up to you.**

There are 24 Learning outcome modules you will complete during the semester. We will cover modules 1-6 for test unit 1. Make a plan to complete these modules on time, outside of class. In class I will explain more deeply about and you will have opportunity to practice what you are learning. We have only 7 or 8 class periods before the first exam so get started right away. **All study materials and assignments can be accessed as you work through the Learning Outcome modules 1-24.** Each Learning outcome Module contains links to reading assignments in the free OER textbook, links to explanatory videos you should watch, and links to the pre-class and post-class quizzes. Come to class prepared by completing the pre-class work in each module before you come to class. As you study, focus on learning new vocabulary and on describing how, where and why cellular processes take place. As you study, write down questions you have. Good preparation will make the class lecture time much more useful to you.

EXAM Information: You will have 3 unit exams worth 100 pts each, and a comprehensive final exam, worth 125 points. See the course schedule (posted in your canvas course) for the dates exams are available to take. All exams will be taken in a SLCC testing center. You should attend class every day, even on exam days. Schedule a time to take your exam at a testing center, that is not during class time, as class will be held as usual.

Advice for studying and performing well in Dr. Sperry's Biol 1610 class: Come to class prepared by completing the Module reading and video assignments, and taken the pre-quiz in each learning outcome module. The reading assignments are short and easy to read. They will introduce you to basic concepts and the vocabulary that you need to know. Learning biology is like studying a foreign language. It begins with mastering the vocabulary. Then you need to learn how to use the correct vocabulary to explain processes clearly. So, as you study, first Focus on Vocabulary. If you understand the terminology you have a much better chance of understanding the associated concepts. Make a list of new words to learn during class. Then after class, get together with fellow students to draw out diagrams, explain concepts to each other, finish in-class assignments and discuss what you are learning from the quizzes. To master a new language you have to practice speaking it. This is also true of Biology. The more you talk about what you are learning, and explain things to each other, the more you will learn and understand.

Each module has a skeletal outline posted. I recommend you use this as a guide for taking notes as you watch the pre-class videos. You can also use the list of the 24 course learning outcomes that is posted on canvas as a study guide. There are quizlet games at the end of each module where you can choose games and flashcards to practice vocabulary. Becoming proficient with the new vocabulary is a key step to success in this class. **You must do work outside class to do well in this class**. A college class typically requires 2 hours outside class work, for each hour spent in class. So **you should be spending a minimum of 6 hours a week studying.** Completing the assigned learning modules BEFORE attending class, and then attending class and taking good notes, is the most useful thing you can do to succeed. I strongly recommend you **FORM STUDY GROUPS.** After lecture, **get together with other students, review what you learned that day, and work on the quizzes, in class assignments and optional extra credit takehome assignment problems together.** Study and discuss what you are learning both inside and outside of class. ***This will help you practice what you have learned and correct any misconceptions you may have about the material.*** I recommend you study often with other students. This is your opportunity to talk about your ideas and explain things to each other. Learning biology is like learning a new language. It requires a lot of time and practice. The more you talk to each other, and learn to use the vocabulary correctly, the better you will understand the material and remember it when you need to use it.

ADVICE FOR PASSING THIS COURSE:

About 30% of students who begin this course, do not pass with a C or better. About half of students retake the course before they apply for their programs. Do the following to ensure that you only need to take this course once.

1. **It is your responsibility** to read the information in each module thoroughly, complete all the required assignments, and complete any optional activities you find helpful. How well you do in this class is entirely up to you. You are learning a new language, the language of life. Speaking a new language requires lots of practice. If you do the work to learn this material well now, it will make all of your future biology classes much easier. **The concepts learned in this class will be brought up again and again in future biology classes. Learning them well now will make those classes much easier and more enjoyable.** Work hard now and it will pay off later.
2. **USE the resources available to you:** Many resources to help you are available; you choose whether to use them or not. You should be spending at least 6-9 hours weekly, outside of class to study adequately. **Simply attending class is not sufficient to do well in this course.** Study regularly with your classmates, and work on assignments together so you can ask each other questions and become familiar with the new vocabulary as you explain concepts to each other. I recommend working on quizzes together and that you **discuss why wrong answers are wrong. Even more important than knowing what the right answer is, is being able to explain how you know that the wrong answers are wrong.** Practice this and it will make taking exams much easier.
3. **Class time:** Class meets Monday and Wednesday of each week. Try not to ever miss class. If you have a conflict during your regular class time, it is ok to attend a different section that I teach that day (see home page for times and locations). This course moves very quickly and can become overwhelming if you fall behind. So make a plan for when you will study. **Download the course schedule so you have an idea of what modules will be covered each day**, and when assignments are due. We typically cover 2 modules per week. I test heavily based on what I present in class. I will work to help you see how the different topics interconnect and and gain appreciation for why they are important. You also earn points for in-class participation. **To study effectively, focus on the logic of why, how and where cellular processes occur. If you just try to memorize everything you will likely become overwhelmed and confused.** But if you try to understand the logic of why things are happening, and how they are happening, as well as vocabulary, you will

be able to figure out right answers because they will make sense. **A key step to understanding is put things into your own words. You need to know the scientific terminology, but to really understand it you need to be able to define terms using your everyday language.**

4. **Complete graded quizzes and discussion assignments ON TIME so you do not fall behind.** Schedule time to work on assignments regularly, so you do not have too many to complete and once and become overwhelmed. It is very difficult to catch up again if you fall behind. Due dates are designed to help you stay on track. I realize life happens, and it is ok to turn in assignments late now and then. (a late penalty of 1% per day automatically applies). But if you get things done on time you will find the course much more enjoyable. Each topic builds on previous topics and it is difficult to move ahead if you have not mastered the earlier material. If you need an extension on a due date, contact me. I understand that you are very busy and I will try to be flexible with you as long as you do not abuse the privilege. See the course schedule linked on canvas for due dates and the lecture plan. Due dates are also posted on the canvas assignments. All graded work will be submitted through the canvas assignment links, except for Exams (which you will take in any SLCC testing center. I recommend the Jordan testing center- 045 JHS). In class assignments will also be turned in manually, not submitted online.

How to Earn Class Points

The class is graded out of 750 points possible. You need to earn 697.5 points to earn an A grade.

Grading Points Available Fall 2025 Biol 1610- Sperry

ASSIGNMENTS	POINTS POSSIBLE	% of GRADE
syllabus quiz	**7 pts possible**	**0.93%**
In class assignments	**25 possible**	**3.33%**
Signature assignment (9 separate assignments)	**75 possible**	**10.00%**
24 Pre-class quizzes (based on total % score)	**100 possible**	**13.33%**
24 post class quizzes (based on total % score)	**118 possible**	**15.7%**
3 Unit tests 1-3: (100pts each)	**300 possible**	**40.0%**
Comprehensive Final Exam (125 pts)	**125 possible**	**16.67%**

750 possible 100%

Extra Credit (EC) points available:

- 24 Practice/review- post class quizzes (based on total %) possible — up to 12 EC pts
- 5 extra Scientist spotlights, 1 pt Each possible — up to 5 EC pts
- 3 optional takehome assignments (up to 3 pts each) possible — up to 9 EC pts
- Class Attendance (based on total %) possible — up to 4 EC pts
- SLCC Course Evaluation completion — 2 EC pts possible
- other opportunities as they may arise

(Note: Maximum total EC pts. allowed is 30 pts)

Engagement Plan

I will typically respond to email within 1 or 2 days at the most. If you have not heard back from me by day 2, please send another email as I have probably missed it somehow. The best email to use is the canvas inbox. I check this daily. My response time is slower if you use my SLCC email address.

I will offer feedback on major assignments within 1 week usually.

The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

I will post communication with the whole class by using the Announcements. Please check the announcements each time you get on canvas.

Description of Assignments/Exams

HOW THIS CLASS RUNS:

1. You are graded based on how many points you earn. There are a total of 750 class points available. You earn these points from taking tests (425 pts), taking quizzes (225 pts), doing in class assignments (25 pts) and completing the Signature assignment tasks (which include reflections, scientist spotlights, and practice worksheets) 75 pts.
    1. NOTE: individual quizzes show as being worth 15 or 20 pts each. These are not "class points". The amount of class points you earn from the quizzes will be determined at the end of the semester, by calculating the percentage of total quizzes you have completed.
2. All course materials and assignments can be accessed using the Modules link on canvas.
    1. The first module is an introductory module with General information such as links to the course schedule, Learning outcomes list, info on workshops and tutoring, etc. to help you get started. Once you know what you are doing, you will not use this module much.
    2. Next comes the signature assignment module, with links to the assignments you will complete this semester
    3. Then you will find the Learning Outcome STUDY Modules. These Modules and are numbered 1-24. THESE MODULES ARE YOUR MOST IMPORTANT STUDY RESOURCE. You should be accessing these modules daily: to read the text, watch videos, study, access required assignments, and prepare for attending class. There are 24 Learning Outcome (LO) modules. Each test covers 6-8 of them. The final exam covers all 24. Each LO module contains links to the assigned Textbook reading, explanatory videos, optional skeletal outlines you can use as a study guide, and links to the REQUIRED quizzes associated with that topic.
        1. The LO modules show up on canvas in the order that you should follow to complete them. You should complete them sequentially. My class lecture will usually be in sync with your module progress, but sometimes I might be a little behind in class. You should complete pre-class quizzes as scheduled, even if we have not yet reached that topic in class yet. Post class quizzes are scheduled to be due a few days after we cover the topic in class. If I am behind, I will adjust post class quiz due dates. But Preclass quiz due dates will never be adjusted. Organize

yourself so you can submit assignments on time. The best thing to do is to complete the modules in the order they show up in Canvas, and you will be on track.

2. HINTS FOR SUCCESS: work through the modules and learn the material on your own, before coming to class. Sometimes you will be ahead of me. Do not worry about if we are not covering that material in class yet. Usually what we are covering in class coincides with the material in the modules, but sometimes I am a bit ahead or behind the modules. Do not worry about this. That is ok. Learning ahead, and working to figure things out on your own, will help you gain greater understanding when we do cover it in class. Modules will also introduce you to material that we may not cover in class. **There is not time to cover every detail in class, so it is important you are working on your own outside of class as well**. In class I will focus on key concepts, giving examples and answering questions to give you a deeper understanding. Quizzes will help you apply what you are learning. Module videos by Prof. Hardy will give you different examples to help you further grasp concepts. Ask questions if there is material in the modules that you are confused about, or if you still do not understand after completing modules and attending lecture. To succeed You should plan to spend at least 6 hours outside of class, studying each week.

4. After the last Learning outcome study module in each test unit, you will find A summary TEST UNIT #1 (or 2, or 3) Module. Here you can find links to my lecture powerpoints, and a summary list of things you should know for that Test unit. You also find links to the PRACTICE post-class quizzes here (The practice quizzes are copies of the original post class quizzes. Take these quizzes if you want to review a quiz you have already completed, without getting a late deduction for being after the due date).
5. The next module after the Summary test module, will be the first module of the next test unit.

3. There are 24 learning outcomes for this course. Go to “General Course Information”/ “learning outcomes List” on canvas to see the full list. I have them organized by test unit. There is a Learning outcomes module (with reading assignments, videos, quizzes and other supplemental materials) for each of the 24 learning outcomes.

1. These modules were prepared by a different biology professor, Melissa Hardy. So the order of how she covers things may be different than what I do in class. But the concepts you need to learn are the same. As you watch her explanatory lectures, use the skeletal outline to help you take notes and identify key concepts. Skeletal outlines are an optional study resource. They are not required, but students usually find them to be very helpful.
2. The required parts of each module are: 1- work through the textbook reading links and watch the videos. 2- complete the pre-class quiz and post class quiz for that module by the due date (so you do not lose late points).
    1. Class points for quizzes are assigned at the end of the semester, based on the % of quizzes you completed, and your percent of correct answers. They are also affected by when you complete them. Quizzes are open all semester, but you lose 1% pt for each day they are past the Due date. I strongly recommend taking quizzes multiple times since each quiz will have some new questions, and sometimes there is explanatory feedback. I will keep the highest score.
    2. NOTE: canvas will deduct late points if you take a quiz after the due date, even if you had already completed it on time. If you want to take a quiz again for review, after the due date, take the Practice post- quiz instead. Practice quizzes are similar to the original required post class quizzes that you have already completed, but they have no due date, so you do not get a late penalty if you want to retake the quiz for review before the exam. (these practice/review quizzes are located in the test unit summary modules)
        1. You can earn up to 100 class pts from Pre-class quizzes (if you get 100% on all of them, and submit them all on time)
        2. Post class quizzes are worth up to 118 class pts.
        3. Practice post class quizzes are not worth any points. But taking the practice post class quizzes can earn you up to 12 pts Extra credit.
4. (Modules 1-6 will prepare you for Test #1). I also recommend you complete the optional Takehome assignment #1 to review for this exam (and earn up to 3 pts Extra credit). You should complete the assigned reading, watch videos and take the Pre-class quiz from EACH MODULE, BEFORE coming to class. Use the syllabus

schedule to see which module is associated with which lecture so you can come to class prepared. After completing the reading, and watching videos, take the pre-class quiz. IT IS GOOD TO COMPLETE MODULES EARLY. When we cover the topic in class, you will gain deeper understanding, and get to ask questions. After class you can review and then take the pre-class quizzes again, until you fully understand the concepts. Then complete the Post class quiz for that module.

ASSIGNMENT DESCRIPTIONS:

1. **Pre-class quizzes are REQUIRED**. Each learning outcome study modules contains a pre- and post class quiz for that topic. It is best to take these quizzes before we cover the topic in class. Due dates are set up to be near the day we cover the topic in class. You will earn up to 100 class points for completing these quizzes (13% of your grade). The points earned is based on your total % score from all the quizzes. You get multiple chances to take these and improve your score. I keep the highest score for each quiz. But remember, each day that you are late, the max score possible drops by 1 %.
2. **Post-class quizzes are also REQUIRED** and earn you up to 118 class points (16% of your grade). You can think of these as a homework program to assess your learning at no risk. Complete these after we finish a topic. Take them multiple times to improve your score and to see different kinds of questions. After the due date, you can continue to review these quiz questions by completing the PRACTICE version of these quizzes.
3. **Practice Post quizzes are OPTIONAL**: You can earn **up to 12 pts extra credit** based on the % of these completed correctly. You get multiple chances to take these quizzes. These quizzes are designed to help you learn what you should know for the exam, and what key concepts to study deeply.. You should complete all quizzes BEFORE you take the Unit exam. But Do not wait until just before the exam to take all the ppt quizzes or you will run out of time. You should take your first attempt when I introduce that concept in class. Then take it again as you master the material. I will keep the highest score.
4. **In Class Assignments (required):** You will earn participation class points for participating in "in class activity" assignments. I keep track of how many of these assignments you have turned in. They are worth a total of 25 class points, based on the percent that you complete (3.3 % of your grade). To get credit you will work on

in class activities as a group, then submit one copy of your group's work, as a hard copy, with all the names of your group on it, for grading. In class assignments will be due the day we do them, if there is time to complete them in class. If not, then they will be due at the beginning of the next class period. (NOTE: each person should complete their own copy of the inclass assignment. Then correct each other's work and turn in one copy for the group. These will be returned to you. Include all names of people in your group on the assignment.)
You must be in class to earn points, and you need to work with other people, not alone.
Exceptions will be made, for partial credit, in the case of a valid reason.

5. **Supplementary Study materials- (skeletal outlines and quizlets, etc): (Optional)** There are excellent study materials in each LO module that you may find helpful. Skeletal outlines can be used to take notes as you watch the module videos. The outline will help you identify new vocabulary, and focus on key concepts, and you can refer to these as you take the quizzes. There are also review quizlet games you can use to practice the vocabulary you are learning. These Supplemental materials have no points associated, and are optional study resources.
6. **Takehome assignments: (OPTIONAL**) There are 3 takehome assignments designed to help you master the material covered in class. These are sets of worksheets that guide you through how to study the key concepts in each test unit. These have multiple pages of work and you should begin working on them early in each test unit. These assignments are an excellent study resource, but they are not required. However, completing these strongly correlates with doing well in the class. This work will benefit you most if you complete it with other students. **You can earn up to 3 pts Extra credit (EC) for each,** if you: complete it with other students, post your work and complete a reflection. It is ok to just use these as a study guide.
7. **Scientist spotlight posts: REQUIRED** – part of the signature Assignment, (2a and 2b) is to help you better understand the scientific method, and to see how what you are learning was discovered, and why it is important. You will complete a reflection post for 2 different scientists (10 pts each). The first is assigned -Charles Darwin, the 2nd you get to choose one, from 6 scientists. If you wish, You can earn up to 5 pts extra credit for completing additional scientist spotlights (see the scientist spotlight extra credit assignment)

8. **7 Other Signature assignment posts: (REQUIRED)** See canvas assignments module for more information.

EXAM INFORMATION:

Proctored Exams: 3 Midterms and a Final exam. These Exams can be taken in the any SLCC Testing Center. The exams will be online format, similar to your quizzes. You will have a 3-5 day window in which you can schedule a time to take each exam. I recommend you make appointments for all exams ASAP, since the testing center is sometimes very busy and it gets hard to schedule an appointment at your desired time later in the semester. You can change your appointment time later, if needed, but I recommend you make an appointment for each exam now. Exams are not timed, but you should expect to spend about 1-1.5 hrs to take an exam well. If you read the text, complete the quizzes multiple times, complete the optional Takehome assignment, use the study guides and play an active role during group discussions, you should be well prepared for exams. I recommend forming study groups and using the review sheets and take-home assignment provided on Canvas to guide your study for each unit exam. The list of course curriculum outcomes is also a good study guide (see learning outcomes module under general course info module).

Cheating policy: If you are caught cheating you will receive a 0 score for that assignment. If you cheat again, you will fail the class. *To avoid the appearance of cheating on reflection assignments always use your own words when answering written questions. I*t is cheating to copy text from notes or from the book or from classmates. It is also cheating to get answers from another person when working on quizzes. But **it is okay to work together as you take quizzes, and discuss concepts and explain things to each other. Just do not have one person tell another what the answer is. If you do this you are cheating yourself, since you are not learning how to solve problems on your own**. The purpose of the quizzes is to teach you how to figure things out and be prepared for the exams. Figuring it out on your own, and then discussing together why wrong answers are wrong is a great way to fix misconceptions and learn the material. I strongly recommend that you work with others to study for exams. Talk out your answers together, on homework assignments, and make sure your reasoning makes sense to someone else. This is a great way to learn and is recommended for Take-home assignments and quizzes. (**Of course, discussing answers, or sharing test questions with others is NOT allowed on tests.** That is cheating).

The Final exam is worth 125 points and will be comprehensive over the whole year (16.7% of your grade).

HINT for success on tests: *When taking multiple choice tests, it is best to first identify answers you know cannot be the correct answer and rule them out. Then reread the question, and choose the correct answer from the remaining choices. To do this successfully, you must develop the skill of quickly identifying wrong answers. The test correction process described below will help you learn to do this. It will also help you not make the same mistake twice. I strongly recommend doing test corrections after each exam.*

To make an appointment to take an exam in a SLCC Testing Center do the following: go to SLCC.edu and Log into to MySLCC (using your SLCC username and password)

- Select the tab “Academics and Records”
- Midway down the page on the right; find “Testing Centers”
- Click on the "Jordan testing center" (or another testing center, if you prefer)
- Click on ‘My Exams’ on the top right of the page to see the exams for which you may schedule.
- Choose the exam called "Biol 1610 Exam 1- Sperry"
- Time slots fill up fast, so I recommend scheduling all of your tests now. I believe you can change an appointment time later, if you wish.

TESTING CENTER HOURS: The testing center is open 8:00am – 8:00pm Monday – Thursday and 8:00am – 5:00pm Friday. It is closed on weekends. Be sure to choose a time slot that gives you 2-3 hours before closing, so you do not feel rushed. BRING your current valid ID and a pencil.

Exam Return Policy: Due to Biology department policy, I cannot return Biol1610 Exams to you. If you wish to review your exam, come to my office hours and you may do so. However, I think reviewing your exams and understanding why you missed a problem is one of the most important ways to learn. Therefore I offer an opportunity to do test corrections, but they must be done in my office.

Grading Scale

Your class grade will be based on your total points earned out of the 750 total pts available, according to the scale below. I grade based on total points earned.

A .... 93% 697.5 - 750 pts

A- .... 90% 675 - 697.5 pts

B+ .... 87% 652.5 - 675 pts

B .... 83% 622.5 - 652.5 pts

B- .... 80% 600 – 622.5 pts

C+ .... 77% 577.5 - 600 pts

C .... 73% 547.5 – 577.5 pts

C- .... 70% 525 – 547.5 pts

D+ .... 67% 502.5 - 525 pts

D .... 63% 472.5 – 502.5 pts

D- .... 60% 450 – 472.5 pts

E .... <60% <450 pts

Tracking your scores: Autograded Assignment scores will post in the canvas gradebook as you complete them. You can use canvas to track your current grade as you submit work. The grade estimate on canvas is pretty accurate, but not exact. Extra credit points will not be added in until the end of the semester, after you have completed the final exam. Also, the canvas summary % score will look artificially low if you have not yet completed an assignment for which the due date has passed, and will look artificially high if you do not yet have a 0 entered for assignments you have not completed on time.

Free STEM Tutoring

STEM Learning provides free tutoring services and textbook checkout to students enrolled in various courses offered by the School or Science, Math, and Engineering.

Tutoring is provided as a drop-in service only, except in certain circumstances.

Please visit https://www.slcc.edu/stem/tutoring/index.aspx for more information!

Academic Integrity

I recommend you do not cheat in this class. It is good to work with others, but it is important you do your own work. Do not copy others' answers. Do not write your name on a group assignment if you did not participate in answering the questions. If you cheat, what you are really doing is cheating yourself, because if you do not try to figure things out yourself, you will not be learning how to think about a concept and make good decisions. You will be paying a lot of money for school but not actually becoming educated. Cheating will only hurt you in the long run, and will potentially hurt your future patients/customers as well, when you don't actually know what you are doing in your job.

Be excited about what you are learning. Be excited to develop new study skills so you will become a good decision maker who can handle stressful situations and perform well in your job. Don't be afraid of hard work. Hard work can be very satisfying, especially when you see the results of your effort paying off. If you actually learn the concepts in Biol 1610, and develop good study habits for success in college, it will make all of your future classes much easier and much more enjoyable. Biol 1610 requires a lot of work to succeed. But it pays off. Don't cut yourself short.

General Education Information

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This course fulfills the above requirement for the General Education Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning.

General Education courses teach basic skills as well as broaden a student’s knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one’s life.

While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants.

Keys to Success

Advice for studying and performing well in Dr. Sperry's Biol 1610 class: Come to class prepared by having done the reading and taken the pre-quiz in each learning module. The text is short and easy to read. It will help to you if you read it. As you study, Focus on Vocabulary. If you understand the terminology you have a much better chance of understanding the associated concepts. Use the list of learning outcomes posted on canvas as a study guide. I also have review sheets for each test posted which I highly recommend you use as a study guide. You must do work outside class to do well in this class. A college class typically requires 2 hours outside class work, for each hour spent in class. So you should be spending a minimum of 6 hours a week studying. Working meaningfully with other students to complete the group takehome assignments AND doing the learning modules BEFORE class are the most useful things you can do. **FORM STUDY GROUPS.** After lecture, get together with other students, review what you learned that day, and work on the takehome assignment problems together. Studying and discussing outside of class, will help you practice what you have learned and correct any misconceptions you may have about the material. I recommend you study with other students often. Talk about your ideas and explain things to each other. Learning biology is like learning a new language. It requires a lot of time and practice. The more you talk to each other, and learn to use the vocabulary correctly, the better you will understand the material and remember it when you need to use it.

Study checklist: To improve your study habits, Ask yourself, Am I doing the following?

- Attending class every day
- Doing pre-class work before I come to class so I come to class prepared to learn
- Show up early to class and take the daily review quiz
- Making friends with other students

- Taking meaningful notes in class
- Asking questions to ensure I understand
- Creating a list of vocabulary words to learn during/after each class
- Don't try to memorize answers. Instead, Study concepts. (understand both why and how things happen)
- Drawing out biochemical processes (identify each step in order, why it is needed and where/how it occurs). Do I understand the logic of why a step is necessary, and what is happening in each step that enables the next step to take place?
- Scheduling time to study outside class and then actually studying during this time
- Completing quizzes and other class assignments on time
- Working daily to complete the optional extra credit group take-home assignments with other students
- Participating in class discussions in meaningful ways (asking questions, correcting others, drawing diagrams)
- Doing test corrections immediately after each test
- Using the test review sheets before tests, to focus on key ideas and identify things I do not yet understand
- Talking with other students (to practice and review new concepts and to do test corrections)
- Attending weekly Exam Topic Review sessions and asking questions while there
- Attending tutoring sessions at the JHS 102 learning center or DUMKE center on Redwood campus
- Meeting with my teacher to get help as needed or to discuss concepts more in depth
- Reflecting on what I am learning and why it matters so I will remember it and know how to use it

If you are not doing as well as you would like, use the list above to decide what you can do to change your study habits so you can succeed in this course.

General Course Policies

Attendance: This is a face to face class. You should attend class daily, in person. **Attendance is required and is mandatory the first week of classes. Sign the roll daily.** You may earn up to 4 pts extra credit based on your % attendance. If you do not attend the first week you may be dropped from the course. (Contact me if you need to miss in the first week so you won't be dropped. Also, note that it is your responsibility to drop the courses if you decide not to complete it.) - if something comes up and you cannot attend your class, it is okay to attend a different section. I teach Biol 1610 at 8:30 am, 10 am and 1 pm on M and W. All are taught in the same classroom.

Academic Integrity:

Generative artificial intelligence (AI) software is a rapidly emerging tool that students may be interested in using. If doing so, SLCC students are expected to adhere to the same standards as the Code of Student Rights and Responsibilities statement on plagiarism. Presenting generative AI software content as your own is a violation of academic integrity. If you use generative AI in your work, you must indicate that you have done so.

Due Dates and Late Work Policy:

Drop, Withdraw or Incomplete Grade: Last day to drop from class with refund is September 10th, withdraw without refund is October 22nd. A grade of "I" (Incomplete) is at the instructor's discretion and can be given if a student is facing extenuating circumstances preventing them from finishing the semester. In order to receive an incomplete, most of the course work must be completed (e.g. ~70%) with a passing grade. If you have any questions about grades or grading policies please visit: https://www.slcc.edu/student/enrollment/grade-policies.aspx.

SLCC Academic Policies: SLCC academic policies may be found in the SLCC 2024-2025 Catalog, and the Code of Student Rights and Responsibilities.

Course Student Learning Outcomes

- Describe the biological hierarchy of organization from atoms to ecosystems and the attributes that living organisms share. Describe the chemical basis of life, including the structure and function of molecules that are essential for life.
- Compare the key metabolic processes that are carried out by living organisms and describe how they are interrelated. Describe the structure and function of cells and

compare cellular organization between the major groups of life.

- Describe the structure and function of the cell membrane and determine how and why various substances enter and leave the cell. Describe the process of cell signaling and compare the various types of cell signaling.
- Describe the major events of the cell cycle and compare asexual and sexual reproduction.
- Analyze transmission of genetic traits and predict offspring resulting from various genetic crosses.
- Describe the processes of DNA replication, transcription, and translation.
- Describe the Theory of Evolution, including mutation and selection, and predict the results of natural selection.
- Describe the scientific method as a process of obtaining knowledge based on empirical evidence and how it relates to society.

College Wide Student Learning Outcomes

SLCC has identified nine essential capacities all students should strengthen, regardless of academic major or career plans, that will serve students in all aspects of life.

- Acquire substantive knowledge in the intended major and throughout General Education
- Communicate effectively
- Develop quantitative literacies necessary for the chosen field of study
- Think critically
- Express themselves creatively
- Develop civic literacy and the capacity to be community-engaged learners who act in mutually beneficial ways with community partners

- Develop the knowledge and skills to work with others in a professional and constructive manner
- Develop information literacy
- Develop computer literacy

Course Learning Environment

As you work with others this year, keep in mind: Comments on others' work should be polite and helpful. When voicing opinions on other people's opinions, there is no right or wrong answer. You are free to agree or disagree with opinions. Your comments in group discussions should be thoughtful and evidence based. When you are discussing factual information, do your best to speak correctly, but it is ok to make mistakes. This is how we learn. Don't be afraid to speak up in class. A big part of science is putting your work out there, then getting constructive criticism from others, so you can improve. As you work with others, consider if you agree that the factual information is correct and offer suggestions for improvement. In particular, try to identify misconceptions. These are things that you think you understand correctly, but there are actually errors. It is really important to identify and correct misconceptions BEFORE you take exams. In your study, focus on correct use of appropriate vocabulary. You will find it is difficult to state exactly what you mean initially, but as you learn to use correct vocabulary and be precise in your language it will get easier. When you can put a concept into your own words and write a simple and factually correct explanation of a difficult concept, then you understand the concept. Writing and then receiving comments to correct our work is a big part of the scientific method. We learn when we collaborate with others and have to organize our thoughts into written words. So do your best, but do not be afraid to say something wrong. Be bold in putting your ideas out there and then be eager to discover misconceptions you may have. In this way we help each other to master the material. It is good to point out and correct factual errors, and to accept criticism of our work, in order to help us overcome misconceptions and more fully understand difficult topics. It is also good to ask follow up questions in order to gain deeper understanding. Read what some other students had to say and see if you learn anything new, or see if you can help them correct misconceptions they may have.

My hope is that all of us together will create a learning environment that supports a diversity of thoughts, perspectives and experiences. Don't be afraid to speak up, and treat each other with respect.

- If you feel like your performance in the class is being affected by an emergency or any other situation outside of class, please let me know so that we can discuss the best course of action. I will not be disappointed in you if you can't complete everything on time, or don't perform to your full potential. I know everyone has a lot going on, and I understand that sometimes coursework is one of many priorities in your life. But I can't help you unless you communicate with me!

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the Institutional Syllabus page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the Institutional Syllabus page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any

questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the Institutional Syllabus page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	% of 750 pts	Assignment	0
	% Post Quiz	Assignment	0
	% Practice Post quiz (for EC)	Assignment	0
	% Pre Quiz	Assignment	0
	attendance EC (up to 4 pt)	Assignment	0
	Error fix EC	Assignment	0

Due Date	Assignment Name	Assignment Type	Points
	Final exam % score	Assignment	0
	In class Activity points	Assignment	25
	Post quiz class pts earned	Assignment	100
	Practice Post quiz EC pts (up to 12)	Assignment	0
	Practice quiz (post 1)- What is Life?	Quiz	20
	practice quiz (post 2)- scientific method	Quiz	20
	Practice quiz (post 3) - Evolution I	Quiz	20
	Practice quiz (post-10) - Cell Transport	Quiz	20
	Practice quiz (post-11) - Cell signaling	Quiz	20
	Practice quiz (post-12) - Nucleic acids & DNA Replication	Quiz	20
	Practice quiz (post-13) - Transcription	Quiz	20
	Practice quiz (post-14) - Translation	Quiz	20
	Practice quiz (post-15) - Mutation	Quiz	20
	Practice quiz (post-16) - Cell Cycle & mitosis	Quiz	20

Due Date	Assignment Name	Assignment Type	Points
	Practice quiz (post-17) - Cell cycle & Cancer	Quiz	20
	Practice quiz (post-18) - Meiosis and Sexual Reproduction	Quiz	20
	Practice quiz (post-19) - Genetics 1 (Mendelian) 1	Quiz	20
	Practice quiz (post-20) - Genetics 2 (non-Mendelian)	Quiz	20
	Practice quiz (post-21) - ATP and Energy (for EC)	Quiz	20
	Practice quiz (post-22) - ETC and Chemiosmosis	Quiz	20
	Practice quiz (post-23) - Cell Respiration	Quiz	19
	Practice quiz (post-24) - Photosynthesis and the Carbon Cycle	Quiz	20
	Practice Quiz (post-4)-chemistry	Quiz	20
	Practice Quiz (post-5) - Life in Water	Quiz	20
	Practice quiz (post-6) - Carbon and biomolecules	Quiz	17

Due Date	Assignment Name	Assignment Type	Points
	Practice quiz (post-7) - Proteins	Quiz	20
	Practice quiz (post-8) - Enzymes	Quiz	20
	Practice quiz (post-9) - Lipids and Membranes	Quiz	20
	Practice Quiz Module 1 - What is Life?	Quiz	0
	Practice Quiz Module 10 - Cell Transport	Quiz	0
	Practice Quiz Module 11 - Cell Signaling	Quiz	0
	Practice Quiz Module 12 - Nucleic Acids	Quiz	0
	Practice Quiz Module 13 - Transcription	Quiz	0
	Practice Quiz Module 14 - Translation	Quiz	0
	Practice Quiz Module 15 - Evolution 2	Quiz	0
	Practice Quiz Module 16 - Cell Cycle and Mitosis	Quiz	0
	Practice Quiz Module 17 - Cell Cycle and Cancer	Quiz	0

Due Date	Assignment Name	Assignment Type	Points
	Practice Quiz Module 18 - Meiosis and Sexual Reproduction	Quiz	0
	Pre-quiz class pts earned	Assignment	100
	Roll Call Attendance	Assignment	100
	sig. Assign. class PTs earned	Assignment	75
	Sig. Assignment %	Assignment	0
	Test 1 corrections (extra credit)	Discussion	0
	Total points	Assignment	750
10/26/24	Test 2 corrections	Discussion	0
11/23/24	Test 3 corrections	Discussion	0
8/29/25	Pre-class Quiz - What is Life? R	Quiz	15
8/30/25	Signature assignment part 1b: "what is life?" discussion	Discussion	5
8/30/25	Preflection (GE reflection 1)	Assignment	5
8/30/25	Syllabus Quiz-First Day	Quiz	7
9/1/25	Pre-Class Quiz - The Process of Science H	Quiz	15

Due Date	Assignment Name	Assignment Type	Points
9/6/25	Post-Class Quiz - The Process of Science (R)	Quiz	20
9/6/25	Pre-Class Quiz - Evolution 1 H	Quiz	15
9/6/25	Scientist Spotlight #1: Charles Darwin	Assignment	10
9/8/25	Post-class Quiz - What is Life? (R)	Quiz	20
9/9/25	Pre-Class Quiz - Fundamentals of Chemistry-R	Quiz	15
9/10/25	Post-Class Quiz - Evolution 1 (R)	Quiz	20
9/13/25	Post-Class Quiz - Fundamentals of Chemistry	Quiz	20
9/13/25	Pre-Class Quiz - Life in Water	Quiz	15
9/16/25	Pre-class Quiz - Carbon and Biomolecules	Quiz	15
9/17/25	Post-Class Quiz - Life in Water	Quiz	20
9/18/25	Takehome assignment #1(3 pts EC) : chemistry of life (optional-use as study guide for exam 1)	Assignment	0

Due Date	Assignment Name	Assignment Type	Points
9/20/25	Post-Class Quiz - Carbon and biomolecules	Quiz	20
9/23/25	Pre-Class Quiz - Proteins	Quiz	15
9/26/25	Biol 1610 Exam 1 F25-SPERRY-001,303	Quiz	104
9/27/25	Post-Class Quiz - Proteins	Quiz	20
9/27/25	Pre-Class Quiz - Enzymes	Quiz	15
9/30/25	Part 3: Enzymes and Biochemistry (GE signature assignment 2)	Assignment	10
9/30/25	Pre-Class Quiz - Lipids and Membranes	Quiz	15
10/1/25	Post-Class Quiz - Enzymes	Quiz	20
10/4/25	Post-Class Quiz - Lipids and Membranes	Quiz	20
10/4/25	Pre-Class Quiz - Cell Transport	Quiz	15
10/7/25	Pre-Class Quiz - Cell Signaling	Quiz	15
10/9/25	Post-Class Quiz - Cell Transport	Quiz	20

Due Date	Assignment Name	Assignment Type	Points
10/11/25	Post-Class Quiz - Cell Signaling	Quiz	20
10/11/25	Pre-class Quiz - Nucleic Acids and DNA	Quiz	15
10/12/25	Takehome assignment #2 (3 pts EC)(enzymes, energy transformations and cellular respiration- OPTIONAL- USE as a STUDY GUIDE for test 2)	Assignment	0
10/16/25	Post-Class Quiz - Nucleic Acids and DNA Replication	Quiz	20
10/18/25	Pre-Class Quiz - Transcription	Quiz	15
10/20/25	Biol 1610 Exam 2 F25-SPERRY 001,303	Quiz	104
10/21/25	Pre-Class Quiz - Translation	Quiz	15
10/22/25	Post-Class Quiz - Transcription	Quiz	20
10/25/25	Post-Class Quiz - Translation	Quiz	20
10/25/25	Pre-Class Quiz - Mutation and Variation- Evolution 2	Quiz	15

Due Date	Assignment Name	Assignment Type	Points
10/28/25	Part 4: Central Dogma: DNA Replication, Transcription, and Translation (GE signature assignment 3)	Assignment	10
10/28/25	Pre-Class Quiz - Cell Cycle, Mitosis	Quiz	15
10/29/25	Post-Class Quiz - Mutation and Variation	Quiz	20
11/1/25	Post-Class Quiz - Cell Cycle and Mitosis	Quiz	20
11/1/25	Pre-Class Quiz - Cell Cycle and Cancer	Quiz	15
11/4/25	Pre-Class Quiz - Meiosis and Sexual Reproduction	Quiz	15
11/6/25	Post-Class Quiz - Cell Cycle and Cancer	Quiz	20
11/8/25	Post-Class Quiz - Meiosis and Sexual Reproduction	Quiz	20
11/11/25	Pre-Class Quiz - Genetics 1	Quiz	15
11/14/25	Biol 1610 Exam 3 F25 SPERRY 001, 303	Quiz	104.5
11/15/25	Post-Class Quiz - Genetics 1	Quiz	20

Due Date	Assignment Name	Assignment Type	Points
11/15/25	Pre-Class Quiz - Genetics 2	Quiz	15
11/19/25	Oompah Loompah Practice Quiz- take this to check your worksheet answers and earn your EC pt	Quiz	1
11/20/25	Post-Class Quiz - Genetics 2	Quiz	20
11/22/25	Part 5: Genetics (GE signature assignment 4)	Assignment	10
11/22/25	Part 6: Pedigree Analysis (GE signature assignment 5)	Assignment	7
11/22/25	Pre-Class Quiz - Energy and the ATP Cycle	Quiz	15
11/26/25	Post-Class Quiz - Energy and the ATP Cycle	Quiz	20
11/29/25	Pre-Class Quiz - Chemiosmosis	Quiz	15
12/1/25	Scientist Spotlight 2 - access scientist information here. (Submit your reflection(s) into the previous assignment: spotlight 2)	Assignment	0

Due Date	Assignment Name	Assignment Type	Points
12/1/25	Scientist Spotlight #2 (GE signature assignment 1))	Assignment	10
12/2/25	Pre-Class Quiz - Cellular Respiration	Quiz	15
12/3/25	Post-Class Quiz - Chemiosmosis (R)	Quiz	20
12/6/25	Post-Class Quiz - Cellular Respiration (R)	Quiz	20
12/6/25	Pre-Class Quiz - Photosynthesis	Quiz	15
12/10/25	Review Quiz-R-Respiration (practice/review for EC)	Quiz	14
12/11/25	Post-Class Quiz - Photosynthesis	Quiz	20
12/11/25	Takehome practice exam (Respiration and Photosynthesis- for 3 pts extra credit)	Quiz	53
12/13/25	Part 7: End-of-Semester Reflection (GE Reflection 2)	Assignment	8
12/17/25	Biol 1610-Final exam F25-SPERRY 001, 303	Quiz	130