Genetics Lab

BIOL2035

Instructor Information

Course Description

Coreq: BIOL 2030; required lab component of BIOL 2030. Hands-on and computer-simulated laboratory investigations of genetic processes. Lab emphasizes data analysis and complements information learned in the lecture. One laboratory session per week.

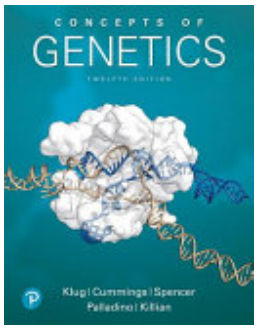
Semester: Fall & Spring

Course Prerequisites

Pre-Requisite(s): BIOL 1610; CHEM 1210. These classes must have been successfully completed (with a grade of C or better).

Co-Requisite(s): BIOL 2035

Required Textbook or Materials



Title: Concepts of Genetics
ISBN: 9780134604718
Authors: William S. Klug, Michael R. Cummings, Charlotte A. Spencer, Michael Angelo Palladino, Darrell Killian
Publication Date: 2019-01-01
Edition: 12th (The international edition or other editions of this book can be used as a substitute)

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

Course Presentation

We will devote time in class for group problem solving activities. We will learn logical thinking skills as an approach to solve story problems. I will present important material using Powerpoint slides and ask students questions to assess understanding.

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 Student Learning Outcomes

- Hands-on and computer simulated laboratory investigations of genetic processes. This lab emphasizes data analysis and complements the information learned in the lecture.

Course Learning Environment

My hope is that all of us together will create a learning environment that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.) To help accomplish this:

- No discrimination is tolerated based on anyone's race, gender, sexuality, religion, abilities, English language proficiency or socio-economic circumstances. Please always choose kindness and patience in our class communications, there is space for all of us here.

- If you have a name and/or set of pronouns that differ from those that appear in your Canvas handle, please let me know so I can address everyone in a way that makes them feel comfortable and safe.

- I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in any of the class materials and discussions (by anyone) that made you feel uncomfortable, please talk to me about it. You can

email me directly or send feedback via the anonymous open survey on our Canvas site.

- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to let me know and request extra time on your course work. I want to be a resource for you and help you learn these materials without adding to anyone's level of stress and I promise to treat everyone with compassion.

General Course Policies

Attendance:

Students are expected to attend and participate in lab each week for the entire lab session. Most credit is tied directly to participation in lab procedures.

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:

Work can be turned in up to 1 week late for 90% credit.

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. ~75%) with a passing grade.

SLCC Academic Policies: SLCC academic policies may be found in the SLCC 2023-2024 Catalog, and the Code of Student Rights and Responsibilities.

Keys to Success

Genetics is a challenging course and will require regular study time outside of class. Please plan to spend at least 7 hours each week.

Get to know other class members and study together

It is important to keep up - it will be hard to catch up if you fall behind

Practice working on story problem questions and using mathematical tools to analyze data

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!

How to Navigate to Canvas

Description of Assignments/Exams

You will receive one grade for the combination of BIOL 2030 and BIOL 2035. 80% of the points will come from BIOL 2030 and 20% from BIOL 2035. Total points = 600.

For BIOL 2030: 4 sectional exams: 360 points For BIOL 2035: 10 pre-lab assignments: 20 points

8 take home assignments: 80 points 10 post-lab assignments: 60 points

20 in-class assignments: 40 points 10 lab quizzes: 40 points

Students will work in groups to complete a project which they are expected to present to the class or in a department or college setting (such as the Bruin Brains symposium).

Communication Plan

Example language:

I will respond to email within 2 business days.

I will offer feedback on major assignments within one week.

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

Grading Scale

Total points = 600

A: >93% > 558 A-: 90 - 93% 540 - 557 B+: 87 - 90% 522 - 539 B: 83 - 87% 498 - 521

B-: 80 - 83% 480 - 497 C+: 77 - 80% 462 - 479 C: 73 - 77% 438 - 461 C-: 70 - 73% 420 - 437

D+: 65 - 70% 390 - 419 D: 60 - 65% 360 - 389 E: <60% < 359

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.

You can access the document by clicking on the following link: https://slcc.instructure.com/courses/530981/pages/institutional-syllabus

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, please visit the Institutional Syllabus under the Tutoring and Learning Support tab: https://slcc.instructure.com/courses/530981/pages/institutional-syllabus. 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, please visit the Institutional Syllabus under the Advising and Counseling Support Services tab: https://slcc.instructure.com/courses/530981/pages/institutional-

syllabus. 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
	Introduce Yourself	Discussion	0