
BIOL 1240 - General Biology: Information Flow and Evolution

Course Description

From the University Catalog: "This course is part of the two-semester General Biology sequence, and is primarily focused on the core concepts of information flow and storage as well as evolution. Students will learn about the chemical and molecular basis of life, cell structure and function, gene structure, expression and heredity, reproduction, development, and evolution. As they learn concepts in biology, students will practice reasoning scientifically about real-world problems and applications."

Course Format and Schedule

Class meetings are on **Monday-Wednesday-Friday (MWF) at 11-11:50 am** in the **SSEC 211** classroom.

Instructor Information

Ms. Betsy Angeli, betsy.angeli@slu.edu, Drop-in hours- 3:00-4:00pm Thursdays, or email me to meet at a different time

Undergraduate Assistants and Supplemental Instruction Information

Learning Assistants:

Sai Utkarsh Kapu, saiutkarsh.kapu@slu.edu; Drop-in hour Sundays 5-6pm

Rocky Meadows, richard.meadows@slu.edu; Drop-in hour Mondays 4-5pm

Eelise Riddle, eelise.riddle@slu.edu; Drop-in hour Wednesdays 12-1pm

Locations TBD

Supplemental Instruction:

Sai Rathan Singirikonda; SI Sessions Mondays 7-8pm Ritter 334; Tuesdays 7-8pm Ritter 334; Thursdays 6-7pm Ritter 334

SLU Core Curriculum - Ways of Thinking: Natural and Applied Sciences

This course is part of the Saint Louis University Core, an integrated intellectual experience completed by all baccalaureate students, regardless of major, program, college, school or campus. The Core offers all SLU students the same unified approach to Jesuit education guided by SLU's institutional mission and identity and our nine undergraduate [Core Student Learning Outcomes](#) (SLOs).

Ways of Thinking: Natural and Applied Sciences is one of 19 Core Components. The University Core SLO(s) that this component is designed to intentionally advance are listed below:

University Core Student Learning Outcomes

The Core SLO(s) that this component is intentionally designed to advance are:

SLO 2: Integrate knowledge from multiple disciplines to address complex questions

SLO 3: Assess evidence and draw reasoned conclusions
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Additionally, the Core Component-level Student Learning Outcomes are listed below:
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Component-level Student Learning Outcomes

Students who complete this course will be able to:
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| <ul style="list-style-type: none"> • Acquire knowledge of the world through a scientific discipline (natural or applied sciences) |
| <ul style="list-style-type: none"> • Express how scientific disciplines approach complex questions |
| <ul style="list-style-type: none"> • Use scientific thinking to draw conclusions about multidimensional problems |
| <ul style="list-style-type: none"> • Assess data used to make evidence-based decisions |

Course Website and Required Materials

Canvas is the web-based learning management system (LMS) that we use at SLU. This is your **primary source of information** regarding the course. In the Canvas course site, you will find the course syllabus and schedule, PDFs of class slides, homework assignments, your grades, links to online resources and assignments, announcements, and other materials relevant to the course. You may access Canvas by logging into [mySLU](#) (Canvas is listed under the “Tools” tab), or into the Okta authentication portal (<https://auth.slu.edu/app/UserHome>), or directly at <https://canvas.slu.edu/>

Required Textbook: Hillis *et al.* (2022) *Achieve for Principles of Life Digital Update*, 3rd ed., Macmillan Learning (ISBN: 978-1-319-45027-4 (epub)).

This course is part of SLU's Inclusive Access Program.

In the Inclusive Access program, the required courseware and textbook for this course are being provided at a reduced cost to all students enrolled in all sections of the course.

The discounted cost of the required materials for this course will be charged directly to your SLU student account. This allows financial aid to be applied to these costs (if applicable) and means you will have no out-of-pocket costs for this course. See the [Frequently Asked Questions for Inclusive Access at SLU](#) to learn more about the program and how it works.

Important: You are enrolled into Inclusive Access by default. Access to Achieve and textbook is provided inside the Canvas course site starting on the first day of class, by clicking on the **SLU Inclusive Access tab** on our course's Canvas page.

You can **opt out** of Inclusive Access if you choose to do so. The last day to opt out is the course drop/add date, **Aug 26** (see the [Student Guide: Opting Out of/Into IA Materials in a Course](#) for instructions on how to opt out). **If you opt out of this program, you still will need to obtain access to the required courseware and textbook for this course on your own.**

Have questions? Here's what to do:

- **Questions about this class or accessing the required course materials:** Contact me.
- **Questions about the Inclusive Access program:** Contact Textbook Brokers, SLU's textbook provider, at billikenshop@textbookbrokers.com.
- **Questions about your student account/bill:** Contact Student Financial Services at sfs@slu.edu.

The following link will take you to a video that walks you through the Achieve registration process. This video does skip the Inclusive Access component, so make sure if you are utilizing Inclusive Access, you do this first: [Student registration for Achieve via Canvas](#).

Here are some other helpful Achieve and eBook resource links:

- To register via Canvas, please follow these steps: [Students: Connect your Canvas and Achieve Accounts](#)
- [Canvas Integration Troubleshooting for Students](#)
- [Achieve Student User Guide](#)

- [How to: Use the ebook in Achieve](#)

Google Chrome is the preferred browser for Achieve. If you experience any technical issues, a good first step is to check your browser settings and [clear your cache/cookies](#) and general troubleshooting info is [here](#). If you require assistance with a technical issue please reach out to Macmillan customer support through the Chat option in the [support community](#). This chat function is used to initiate contact with Customer Support via email, phone, or online chat with a Customer Support Associate. If customer support cannot resolve your issue, please send your ticket number to your instructor, who will contact a Macmillan representative for additional assistance.

i>Clicker (aka “clicker”) will be used in class for interactive exercises, and free access is included with your Achieve account registration. For this section of the course, you may use the iClicker Student Mobile App or the iClicker Student Web App. [You can find information about downloading the app and using iClicker here](#). You are responsible for bringing your iClicker-enabled device with you to every class period.

Learning Outcomes and Assessment

Course learning goals

Upon completion of BIOL 1240, you should be able to:

1. define and describe key concepts and principles of biology relating to: ○ the common properties and chemical composition of living organisms; ○ the structure and organization of cells; ○ how cells store, replicate, and use genetic information; ○ how genes and traits are inherited through different modes of reproduction; ○ how populations grow, interact with their environment, and change over time; ○ the definition, mechanisms, and outcomes of evolution, and the origins of life's diversity.	Knowledge goals: As a result of this course, you will know (remember and understand) fundamental concepts and principles of biology.
2. apply your knowledge of biological concepts and principles to: ○ analyze case studies and examples of biological systems; ○ interpret data, models, and representations of biological systems and processes; ○ explain the causes and mechanisms underlying biological phenomena; ○ create scientific representations of biological systems (e.g., models, diagrams); ○ articulate and evaluate claims (conclusions) based on evidence (data, observations).	Higher-order Skills: There is much more to biology than knowing facts and concepts. With practice and feedback, you will learn to apply your knowledge of biology to interpret and explain real-world phenomena.

Assessment and Grades

Your grade for the course will be calculated as a weighted average of the scores you earn on the following categories:

Unit Exam 1	17.5%
Unit Exam 2	17.5%
Unit Exam 3	17.5%
Final Exam (cumulative)	17.5%
Assignments	20%
Participation	10%

In this course, there are **no individual student opportunities for extra credit**. Midterm and semester averages will be **rounded to the nearest tenth of a point** and translated to letter grades according to the following scale:

A	93.0-100%	A-	90.0-92.9%		
B+	87.0-89.9%	B	83.0-86.9%	B-	80.0-82.9%
C+	75.0-79.9%	C	70.0-74.9%	C-	65.0-69.9%
D	57.0-64.9%	F	0-56.9%		

Exams

In this course, there are **four units, each ending with an exam** (3 unit exams and a cumulative final exam). Each of the 3 unit exams will focus on the concepts you learned in the unit immediately preceding the exam (and following the previous exam); the final exam is cumulative (i.e., covers unit 4 content, plus everything we learned over the course of the semester). Each exam is worth 17.5% of the final grade.

- **Exam dates are in the course schedule. Mark your calendar right away, and do not schedule optional activities or travel on those dates!**
- You will take the unit exams **during regular class time**, in the same room where class normally meets, unless you have made arrangements to take exams out of class with an approved accommodation.
- Bring your **SLU student ID** with you on exam days, and show it if requested by the instructor or proctor.

What if you miss an exam?

The expectation is that you will take exams on the scheduled dates. Exam rescheduling is only available in certain circumstances:

1. for **scheduled authorized absences** (defined according to [University Policy](#))
 - *Examples:* participation in Division 1 athletic games and associated travel, observation of religious holidays, legal obligation (e.g jury duty, required court appearance).
 - Make sure you provide appropriate documentation and schedule the make-up exam well ahead of the exam date.
2. for **unexpected authorized absences** (defined according to [University Policy](#))
 - *Examples:* an isolation/quarantine directive issued by a qualified health official, extended illness and/or hospitalization, bereavement, short-term service with the military and/or First Responders.
 - These unexpected circumstances may sometimes require extended absences, and *may* be communicated, if appropriate, to (and through) the [Dean of Students' Office](#).
 - Contact me as soon as you are able, and work with me to schedule a make up test; I will require appropriate documentation (or an email from the Dean of Students).
3. for **unanticipated emergencies**:
 - Contact me as soon as you are able, and work with me to schedule a make up test. Depending on the circumstances, I may require some documentation.

IMPORTANT: Please note that we do not give exams in advance of their scheduled date; exams can only be made up after their scheduled date. You have **at most 1 week from the date of the missed exam** to take a rescheduled exam. After 1 week, your exam will be considered missing. At the end of the semester, **one missed exam will be replaced by the grade you earn on the cumulative final**. Any additional missed exams will count as zeroes.

If your grade on the cumulative Final Exam is greater than that of any of the unit exams, the lowest unit exam score will be dropped, and **the final exam grade will replace it** (i.e., the final exam will count as 35% of your final grade). If you missed **one** exam and did not make it up within one week, **the final exam grade will replace the missed exam score**.

However, the final exam grade will NOT replace a zero that was assigned as a consequence of a violation of academic integrity.

Assignments and Participation

Course assignments will be primarily completed in Canvas outside of class, as homework quizzes, worksheets, etc. The total number of assignments and points varies from year to year, and may vary among different sections of the course. All assignment points you earn are added up into a single score, which is updated in My Grades (the Canvas gradebook) as “Assignments Running Total”. Your final total Assignments score, at the end of the semester, will correspond to 20% of the course grade. **Note that your Assignment total does not include exam scores.** Any assignments turned in after the due date will be considered late. If you miss an assignment due date, you may submit it up to 5 days late for a penalty of 20% off the total score. Any work that is more than 5 days late will receive a zero. This late policy does not apply when academic accommodations are being used.

We value and expect **participation in class activities**. Every day, in class, there will be some form of activity for participation credit; your responses may be recorded as paper-and-pencil work (individual or group worksheets), or through iClickers. All participation points will add up to a single “Participation Score”, which, at the end of the semester, will correspond to 10% of the course grade. As you will see in the syllabus section on attendance policy, **you are allowed up to 5 absences for personal reasons** (outside of any University-authorized absences) without consequence on your grade. Unauthorized absences beyond the first 5 will be marked as zeroes and affect the participation portion of your grade.

Grade discrepancies

In the event of a grading error, you should **submit a re-grade request to me by e-mail within one week** of the date that exams were returned in class. If you wish to challenge the correct answer to a question, you will need to cite the appropriate section of the lecture notes or textbook, and/or provide your reasoning. You do not need to return your exam with a re-grade request: I maintain copies of all exams, and can verify the mistake. Requests received later than one week after the exam was returned may not be considered.

Technology in the classroom

- **Cell phones** should not be used in class, unless required for a class activity (such as use of the iClicker app). If we observe you using a device for something not related to class, we may ask you to put it away, especially if it is distracting others. Please switch your phone to silent mode as a courtesy to others.
- Use of **laptop computers and tablets** in class is not encouraged, unless required for a class activity or for taking notes. If we observe you using a device for something not related to class, we may ask you to put it away, especially if it is distracting others.
- **Personal Response Devices (iClicker apps)** are NOT to be shared, lent, borrowed, exchanged or used on behalf of another student. Any instance of inappropriate use of clickers will be handled as a violation of academic integrity, and is subject to reporting and sanctions like any other act of academic dishonesty. Sanctions for students found violating these expectations may include a grade of zero for all clicker assignments for the entire semester.
- **No electronic devices may be used during exams.** This includes cell phones, smartwatches, computers, translators, and electronic tablets. Use of any electronic device during an exam will be considered an academic integrity policy violation and will result in a 0 for the exam.

Policies and Expectations

Attendance in BIOL 1240

Active participation in class is essential for success in this course. Attendance at all class meetings is **expected**, and you are responsible for all material covered in class. Each day, you will earn credit for participating in class work; your overall participation score will account for 10% of your final grade. Our attendance policy is based on the SLU [University Attendance Policy](#), which identifies and defines **authorized absences**, including for example documented illness, bereavement leave, court appearances, university-sponsored sports trips, and scheduled religious observations.

If you must miss class and your absence is **authorized (per SLU policy)**, you are excused from participation credit on that day. For foreseeable absences (e.g., varsity sports trips and religious observations), a minimum of 2 weeks' notice is expected.

It is possible, however, that you may need to miss a class day for reasons that do not amount to authorized absences. Examples of **unauthorized absences** include travel for personal reasons, appointments scheduled during class time, a headache, feeling generally ill, travel related to extracurricular activities other than varsity sports (e.g., club or intramural sports, dance competitions, musical performances, etc.). Participation points for **up to five** unauthorized absences will be waived at the end of the semester, and these will not count towards your grade. Any missed classes over the five day minimum will not be waived, and will be recorded as a zero.

Regardless of the reason for your absence, If you miss class please obtain notes from another student and check the Canvas site for the lecture slides and for any upcoming assignments and timely announcements. If you miss an exam, refer to the Missed Exam policy on page 3 of this syllabus.

Classroom Behavior and Decorum Expectations

Our goal is to provide a productive, interactive, inclusive, and respectful learning environment for all students, instructors, and supporting undergraduate LAs and SIs.

Here, we provide a few ground rules for class etiquette and behavior to support a positive and respectful learning environment.

- We expect you to be on time and stay for the whole class; if, occasionally, you need to arrive late or leave early: (a) make it an exception, not a rule, and (b) try to be as quiet and respectful as you can.
- Please refrain from having side conversations with your classmates during class; this is distracting not only to the instructor, but also to your classmates who are trying to listen to the instructor.
- This course involves in-class activities that require interactions and discussion between peers (student to student), between students and LAs/SIs, and between students and the instructor. We encourage you to be an active participant, and to elevate class activities to real learning opportunities for yourself and for others
- If a student engages in disrespectful, inappropriate, or aggressive conduct (whether through their words or actions) during class time, they may be asked to leave the classroom or even LA/SI office hours for that particular day. And a conduct concern may be submitted.

Saint Louis University Withdraw/Drop Policy and Dates

The deadline to drop a course without a "W" (with a full refund) is **Aug. 26**. The deadline to withdraw from the course with a "W" is **Oct. 28**. If you wish to drop or withdraw, please see your academic advisor for assistance with the process.

Saint Louis University Title IX Policy

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of discrimination on the basis of sex, including sexual harassment, sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. If you speak with a faculty member about an incident that involves a Title IX matter, **that faculty member must notify SLU's Title IX Coordinator that you shared an experience relating to Title IX.** This is true even if you ask the faculty member not to disclose the incident. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you are pregnant or experiencing a pregnancy related condition, the Title IX Coordinator can assist you in understanding your rights and options as well as provide supportive measures.

Anna Kratky is the Title IX Coordinator at Saint Louis University (DuBourg Hall, room 36; anna.kratky@slu.edu; 314-977-3886). If you wish to speak with a confidential source, you may contact the counselors at the University Counseling Center at 314-977-TALK or make an anonymous report through SLU's Integrity Hotline by calling 1-877-525-5669 or online at [SLU.EDU/INTEGRITYHOTLINE](https://www.slu.edu/integrityhotline). To view SLU's policies, and for resources, please visit the following web addresses:
<https://www.slu.edu/about/safety/sexual-assault-resources/index.php>.

Disability Accommodations

Students with a documented disability who wish to request academic accommodations must formally register their disability with the University. Once successfully registered, students also must notify their course instructor that they wish to use their approved accommodations in the course.

Please contact the Center for Accessibility and Disability Resources (CADR) to schedule an appointment to discuss accommodation requests and eligibility requirements. Most students on the St. Louis campus will contact CADR, located in the Student Success Center and available by email at accessibility_disability@slu.edu or by phone at 314.977.3484. Once approved, information about a student's eligibility for academic accommodations will be shared with course instructors by email from CADR and within Banner. Students who do not have a documented disability but who think they may have one also are encouraged to contact CADR. Confidentiality will be observed in all inquiries.

Student Success Center

The Student Success Center (SSC) supports students in reaching their goals in and out of the classroom. Providing a variety of resources, the Student Success Center houses both the Center for Accessibility and Disability Resources (CADR) and Academic Support, which includes Tutoring, Supplemental Instruction, University Writing Services, and Student Success Coaching. The Student Success Center is located in the Busch Student Center, Suite 331, and students can make an appointment with any SSC resource via EAB Navigate - Student. To learn more about the Student Success Center and its resources, please visit:
<https://www.slu.edu/life-at-slu/student-success-center/index.php>.

Basic Needs Security

Students experiencing food insecurity, housing insecurity, and any other challenges that are impacting their personal and/or academic wellbeing are encouraged to contact the Dean of Students Office for support. Students can submit an [intake](#) form, email deanofstudents@slu.edu, or call 314-977-9378 to connect with their office. Students may also communicate directly with their instructors about any challenges they are experiencing to receive support and resource referrals.

Academic Integrity at SLU

Academic integrity is the commitment to and demonstration of honest and moral behavior in an academic setting. Since the mission of the University is "the pursuit of truth for the greater glory of God and for the service of humanity," acts of integrity are essential to its very reason for existence. Thus, the University regards academic integrity as a matter of serious importance. Academic integrity is the foundation of the academic assessment process, which in turn sustains the ability of the University to certify to the outside world the skills and attainments of its graduates. Adhering to the standards of academic integrity allows all members of the University to contribute to a just and equitable learning environment that cultivates moral character and self-respect. The full University-level Academic Integrity Policy can be found on the Provost's Office website at:

<https://www.slu.edu/provost/policies/academic-and-course/academic-integrity-policy.pdf>.

Academic Integrity in BIOL 1240

Academic dishonesty in any form is taken seriously and will not be tolerated in this course. It is the responsibility of any student who observes dishonest conduct to bring it to the attention of a faculty member. All instances of academic dishonesty will be reported to the Academic Honesty Committee and the Dean of the College of Arts and Sciences. The minimum penalty for an act of academic dishonesty is the assignment of a grade of 0 for the assignment or exam in question; other possible penalties include lowering of the course grade and assignment of a failing grade for the course. The Academic Honesty Committee may impose these or other sanctions, including disciplinary probation, suspension, and dismissal from the University.

Statement prohibiting the use of generative AI

Generative AI, including but not limited to ChatGPT, Gemini, Microsoft Copilot, Midjourney, DALL-E or Github Copilot, may not be used for work in this class. The use of such generative AI tools may compromise your learning by undermining your ability to analyze data and formulate/create non-derivative creative work. ***The only exception to this rule is the use of the "AI tutor" that is embedded in our Achieve course. This tool has been specifically trained on material that is only sourced from our textbook. Use of outside AI may lead to outdated, incorrect, or incomplete explanations of natural phenomena, or otherwise explanations that are contradictory to those found in our text.***

You may not use generative AI to brainstorm, compose theses, or compose arguments based on theses provided by generative AI. You may not use generative AI to in any way augment your original work. For example, asking an AI to polish an answer or presentation you have created is not allowed. You may not use generative AI to compose work as a whole or in part for any assignment in this course. Please review item three in the section labeled Plagiarism in the [Saint Louis University Academic Integrity Policy](#).

Wellness

With our Jesuit commitment to *cura personalis*, the University sees your academic success as connected to your health and well-being and provides resources to support your holistic wellness.

All students experience stressors and challenges at some point, and seeking support is both normal and beneficial. Such challenges may be the result of academic concerns (such as those related to particular assignments or content in a course), or they may be more personal in nature (such as concerns related to relationships, mental health, medical issues, loss, identities, alcohol or drugs, housing or food security, finances, or local/world events, among other things). If you experience these or other difficulties that are impacting your well-being and/or academic work, please consider seeking support from the resources available to you.

- For questions or concerns related to this course, please contact me. I am invested in your success and will support your success in the ways I can.
- Additionally, you have access to the many resources SLU provides in support of your personal wellness. You will find a list of available resources on [the Well-being page of the SLU website](#).

If you or someone you know is experiencing a crisis: please consult [Crisis Support and Warning Signs on the University Counseling Center website](#) or call the University Counseling Center at 314-977-TALK (8255) and press #9 to be connected to a behavioral health nurse 24/7.

[University Counseling Center](#)

The University Counseling Center (UCC) offers free, short-term, solution-focused counseling to Saint Louis University undergraduate and graduate students. UCC counselors are highly trained clinicians who can assist with a variety of issues, such as adjustment to college life, troubling changes in mood, and chronic psychological conditions. To make an appointment for a wellness consultation, call 314-977-8255 (TALK), visit [the UCC website](#) or walk into the clinic on the second floor of Wuller Hall. For after-hours needs, please press #9 after dialing the clinic number and ask for a mental health specialist. Free virtual teletherapy is also available through UCC partner, [TimelyCare](#) (timelycare.com/slu).