



BSC1005 Syllabus

General Biological Science

BSC1005 / 80968 / Fall 2026

3 Credit Hours/ 3 Contact Hours

Pre-requisites/Co-requisites: Placement into college level reading is required while placement into college level English is recommended.

Contact Information

Instructor

Greg Robinson
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850-769-1551 x 2853

Natural Sciences Room 311
Office Hours Will be Posted to
Canvas
Expect responses to messages
within 48 hours (business days)

Division Chair

Dana Hutchinson
Chair, Natural Sciences
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Kathy Bleday
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Course Information

Catalog Description:

Cannot be used to satisfy degree requirements by students who already have credit in BSC2010 or BSC2011. This course applies the scientific method to critically examine and explain the natural world including, but not limited to, cells, organisms, genetics, evolution, ecology, and behavior.

Student Learning Outcomes:

Students will evaluate data regarding validity; students will read and interpret a variety of scientific data; students will describe the natural world; students will articulate and practice the scientific method.

Course Materials & Resources:

Biology: The Core, 3rd Edition/2020, by Eric Simon; *Required for Reading Assignments*

Soft/Bound Edition - ISBN 10: 0-134-8915-11; ISBN 13: 978-0-134-89151-4

Looseleaf Edition - ISBN 10: 0-135-27165-7; ISBN 13: 978-0-135-27165-0

eBook - ISBN-13: 9780135832646

Delivery Method:

This course meets face to face. Course material, assignments, and announcements may be offered via Canvas as a supplemental approach to learning at the discretion of the instructor. Please make sure that you have access to a computer with a webcam and internet service in the event a change in course delivery is needed.

Student Expectations

In this course, communication and feedback will occur through various channels, including GCSC email, Canvas Inbox, Canvas Announcements, Canvas Discussions, Microsoft Teams or Zoom, assignment feedback, and instructor office hours. Review the statements below so that you understand the expectations for communication.

As a student at Gulf Coast State College, you are expected to:

- **Adhere to Course Guidelines:** Follow the guidelines detailed in the course syllabus, along with any additional instructions provided by the instructor. This includes understanding and complying with the course objectives, grading criteria, and academic policies.
- **Maintain Regular Contact:** Keep in touch with your instructor and classmates via your GCSC email or other designated communication channels. Regular contact helps clarify doubts, share ideas, and foster a collaborative learning environment.
- **Active Participation:** Engage actively in class discussions and submit assignments on time. Your active participation is crucial for your academic success and contributes to a vibrant learning community.

As your instructor, my commitment to you is to:

- **Provide Timely Feedback:** I will review and provide feedback on your assignments and submissions promptly. My goal is to help you understand your strengths and areas for improvement, which is crucial for your academic growth.

- **Respond Via Canvas Inbox:** I will respond to your emails or messages within 24-48 hours (excluding weekends), unless otherwise noted. I understand the importance of clear and timely communication in addressing your questions and concerns.
- **Post Regular Announcements:** To keep you updated and help you manage your time effectively, I will send out weekly reminders via announcements. These reminders will include important dates, upcoming assignments, and any changes to the course schedule.
- **Maintain Weekly Office Hours:** I will maintain regular weekly office hours, but I can also be available by appointment. This is to ensure I'm available for any questions or concerns that may come up during the week.

Course Schedule

Dates	Module	Description
Weeks 1-2	1	<p>Introduction to Biology and Biochemistry</p> <p>In Chapter 1, we will learn about the basic properties of living organisms and the many levels at which life can be studied scientifically. We will also learn about the scientific method and how this process can be used in our everyday lives to make sound decisions and identify disinformation. In Chapter 2, after a quick introduction to the fundamentals of chemistry, we will explore how water and four basic types of organic "macromolecules" combine to build cells and carry out the processes of life.</p> <p>Textbook Readings: Chapters 1 & 2 Assessments: Vocab/Concept Quizzes 1 & 2, Unit 1 Exam</p>
Weeks 3-5	2	<p>Cell Biology and Metabolism</p> <p>In Chapter 3, we will discuss the different types of cells and learn to identify their components and how they interact with their surroundings. Chapter 4 is all about how living organisms get and use energy. We'll learn about photosynthesis and cellular respiration, the two processes that power the biosphere, and discuss how humans use the energy and nutrients in the food that we eat.</p> <p>Textbook Readings: Chapters 3 & 4 Assessments: Is It Food?, Vocab/Concept Quizzes 3 & 4, Unit 2 Exam</p>
Weeks 5-8	3	<p>The Cell Cycle, Genetics, and DNA</p> <p>Chapter 5 is broken up into two large sections. Part 1 covers the different processes cells use for reproduction and how chromosomes carry and sort out the information necessary for</p>

		<p>organisms to live. In Part 2, we will explore the various different ways that the information carried on the chromosomes is passed down and used by organisms' offspring. In Chapter 6, Part 1, we will take an in-depth look at how the cell decodes DNA and uses the genetic instructions to build the functional molecules of the cell: proteins and RNAs. We'll also discuss what happens when the genetic code is corrupted by mutations. Chapter 6 Part 2 will offer a broad survey of biotechnology topics, including genetic engineering and the production of genetically modified organisms (GMOs).</p> <p>Textbook Readings: Chapters 5 & 6 Assessments: Vocab/Concept Quizzes 5 - 8, Unit 3 Exam</p>
Weeks 9-12	4	<p>Evolution and Microbial Life</p> <p>Chapter 7 Part 1 has us briefly joining Charles Darwin on his famous voyage on the <i>HMS Beagle</i>, where he discovered the evidence that led to his proposal of one of the most significant scientific theories: Evolution by Natural Selection. In Chapter 7 Part 2, we explore how the various evolutionary processes have shaped life on Earth for billions of years, and learn how biologists categorize and classify the millions of species that live here today. Chapter 8 introduces the Abiogenesis Hypothesis, a model by which life could have developed on Earth from nonliving chemical precursors. We will then more deeply investigate the different groups of prokaryotes, the single-celled eukaryotes, and nonliving parasites and pathogens like viruses and prions.</p> <p>Textbook Readings: Chapters 7 & 8 Assessments: Lizards in an Evolutionary Tree, Classification Activity, Vocab/Concept Quizzes 9 & 10, Unit 4 Exam</p>
Weeks 13-15	5	<p>Biodiversity of Fungi, Plants, and Animals</p> <p>In Chapter 9, we will cover the structure and ecological roles of fungi before learning about the 400+ million year evolutionary journey the plants took that made them the foundation of all terrestrial ecosystems. Part 1 of Chapter 10 begins with the evolutionary development of true animals from colonial eukaryotes called Protozoa and covers the highlights of the many different invertebrate phyla. Part 2 focuses on the Chordates, and we'll move step-by-step through the various adaptations that gave rise to the terrestrial vertebrates like reptiles, birds, and mammals.</p> <p>Textbook Readings: Chapters 9 & 10 Assessments: Vocab/Concept Quizzes 11 - 13, Unit 5 Exam</p>
Week 16	6	<p>Ecology</p> <p>Chapter 12 explores the interactions between biodiversity, the evolutionary processes, and the physical and chemical processes</p>

		<p>of the environment at the ecosystem level. We will learn about population growth and demographics, trophic web composition and energy flow, and the effects of human activities on ecosystem function.</p> <p>Textbook Readings: Chapter 12</p> <p>Assessments: Vocab/Concept Quiz 14, Comprehensive Final Exam</p>
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Grading

GCSC Grading Scale

All grades will be posted in the student grade book in Canvas and will be assigned according to the following scale:

- A 90%-100%
- B 80%-89%
- C 70%-79%
- D 60%-69%
- F 59% and below

Calculation of Grades

Quiz and Assignment average: 30% of grade

Unit Exam average: 50% of grade

Comprehensive Final Exam: 20% of grade

Incomplete Grades

To receive a grade of "I" (for "Incomplete") in a class, the student must submit a written request to the instructor prior to the last day of the course. The "Incomplete" option is only intended to help students who have an emergency arise in the last weeks of the class that prevents them from finishing all work. The "Incomplete" provides 30 days from the ending date of the course to make up any missing work. If work is not submitted during this time period, the grade will automatically change to an "F".

Course Policies

Accessibility Statement

Gulf Coast State College supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, reasonable accommodations can be arranged. Prior to receiving accommodations, you must register with Student Accessibility Resources. Appropriate academic accommodations will be determined based on the documented needs of the student. Please visit [GCSC's Student Accessibility Resource \(SAR\) webpage](#) to learn more. For information regarding the registration process, email sar@gulfcoast.edu or call 850-747-3243.

Attendance Policy

Regular class attendance and participation are significant factors that help to promote success in college. Students are expected to attend all class meetings of all courses for which they are registered.

You are expected to know the instructor's specific attendance policy, as stated in the syllabus for each course. In the event of absence, you should contact your instructor as soon as possible to indicate the reason and to inquire whether make-up work is possible. (Make-up work is offered solely at the discretion of your professor.)

If your absences in a class become excessive, as stated in the course syllabus, your professor may contact you, indicating that further absence may result in your withdrawal from the course. Your professor can withdraw you from a course for excessive absences without your permission.

Instructors will monitor attendance at the beginning of each semester. If you are not in attendance during this period, you may be withdrawn from the course. You will be financially responsible for the course and a "W or NS" will appear on your transcript. Withdrawal from a course may also have implications for financial aid.

Make-Up Work Policy

In-class assignments may not be possible to make up if you are not in attendance the day the assignment is completed; regular attendance is vital to ensuring you do not miss any class work.

Vocabulary/Concept Quizzes are administered outside of class on Canvas and can be taken at any point during the unit; they will close the day of the unit exam and any missing quizzes will automatically become zeros.

Missing Exams: You will receive a zero if you miss a test. The lowest test score will be dropped, so missing one test is manageable. However, if you miss a second test, you will receive a zero without a substitution or make up.

Most students will not have a legitimate reason to miss more than one test. So, don't throw away your drop test unless it is a dire circumstance. I realize that emergencies and obligations may arise. If this is the case, I will expect evidence of your situation.

Withdrawal Policy

Two withdrawals are permitted per credit course. After that, a grade will be assigned. Please be concerned about withdrawals. When admitting students into certain programs, universities may calculate withdrawals as grades. It is your responsibility to verify the effects of enrollment and/or withdrawal upon your financial assistance (financial aid, scholarships, grants, etc.). There are two kinds of withdrawals---student and administrative.

- *Student Withdrawal (W1)* - Students wishing to withdraw must complete the online Student Withdrawal Form before the scheduled withdrawal deadline as published in the College catalog. Student withdrawals initiated prior to the scheduled withdrawal deadline will be recorded as a grade of "W." The withdrawal deadline for an off-term or condensed term is one week after midterm.
- *Administrative Withdrawal (W2)* – A faculty member may withdraw a student up to the published withdrawal deadline for violation of the class attendance policy in which case the student will receive a grade of "W." The withdrawal deadline for an off-term or condensed term is one week after midterm.

Students cannot withdraw from developmental studies courses (college-preparatory classes) after the drop/add period without written permission from their instructor and/or their academic advisor.

Academic Integrity

Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college's mission. Academic misconduct, including cheating or plagiarism, is destructive to the spirit of an educational environment. GCSC professors report every instance of student academic misconduct to the college for inclusion on the student's records.

Most course syllabi include an academic honesty policy and the consequences for violating this policy. Familiarize yourself with course policies regarding authorized or unauthorized use of AI to avoid the pitfalls of academic dishonesty.

The following definitions will apply:

"Cheating"

includes but is not limited to use of any unauthorized assistance in taking quizzes, tests, or examinations; dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; the

acquisition without permission of tests or other academic materials belonging to a member of the College's faculty.

"Plagiarism"

includes, but is not limited to, the use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment as well as the purchase of papers or projects. It can also include overuse of an editing program like Grammarly or submitting work written by an Artificial Intelligence (AI) generator like ChatGPT. Make certain to consult your course syllabi for your instructor's guidelines of AI material.

"Self-plagiarism"

occurs when a student submits the same or considerably similar document to fulfill requirements in different classes. For example, if a student submits a term paper in Religion they originally wrote for an English class, this is self-plagiarism. Once a paper receives a grade in one class, it cannot be submitted again for another class.

"Generative Artificial Intelligence (AI)"

is technology that uses machine learning to create new content, such as text, images or code, based on user input. These systems are trained on vast amounts of data, including large language models and image or code generators. Common examples include ChatGPT, GitHub, Copilot, Google Gemini, Perplexity, and the Grammarly AI function.

Sanctions for incidences of academic misconduct, depending on the severity of the incidence and/or its repetition, may range from receiving an F grade (or 0) for the test, assignment, or activity, to failure of the course, to suspension or dismissal from the college.

Classroom Recording

In accordance with federal and state privacy laws, students may record class lectures for their own personal educational use, in connection with a complaint to the college, or as evidence in internal or external legal proceedings. Students may not publish or upload the recordings or any components thereof without the knowledge and written permission of the faculty member. Failure to obtain permission to publish could lead to the students' having to pay damages, attorney fees, and court costs. For more information about what can be recorded, please see the guidelines in the GCSC Student Handbook.

Generative Artificial Intelligence (AI) Policy

The use of generative AI tools in academic work requires clear guidelines to maintain academic integrity. Please review the policy selected for this course regarding the use of AI tools such as ChatGPT, Copilot, Grammarly's AI features, and similar platforms for assignments, research, and other coursework.

See the student handbook for further information. Students with questions about acceptable use should consult their instructor.

Generative AI Use with Permission and Disclosure

Students may use basic assistive technologies for spelling, grammar, and formatting (e.g., PaperRater or SpellCheckPlus). Generative AI tools (e.g., ChatGPT, Copilot, Grammarly's AI function, etc.) may also be used for classes and/or assignments where instructors have given explicit permission. Students must clearly disclose and properly cite any AI-generated content used in their work, following course guidelines. Students are permitted to use AI only in the manner and means described by the instructor. Unacknowledged or unauthorized AI use will be treated as a violation of academic integrity and may result in penalties, including a zero on the assignment and additional disciplinary actions as outlined in the college's academic integrity policy.

Anti-Discrimination Policy

Gulf Coast State College does not discriminate against any person in its programs, activities, policies or procedures on the basis of race, ethnicity, color, national origin, marital status, religion, age, gender, sex, pregnancy, sexual orientation, gender identity, genetic information, disability, or veteran status. All questions or inquiries regarding compliance with laws relating to non-discrimination and all complaints regarding sexual misconduct or discrimination may be directed to Amanda Reed, Executive Director of Human Resources/Title II/504/Title IX Coordinator and Employment Equity Officer, Gulf Coast State College, 5230 W. US Highway 98, Panama City, FL 32401; 850-769-1551, ext. 3516. Rules, policies, fees, and courses described in this catalog are subject to change without notice.

Syllabus Policy

For any syllabus posted prior to the beginning of the term, the instructor reserves the right to make minor changes prior to or during the term. The instructor will notify students via e-mail or Canvas announcement when changes are made in the requirements and/or grading of the course.

Student Support Resources

Gulf Coast State College is committed to providing you with the resources you need for success as a student and beyond. View all the academic and student support resources provided at GCSC on the [Student Services web page](#).

Course Technology & Support

To successfully participate in this online course, students must have basic computer and digital information literacy skills and meet the following technology requirements:

- **Computer:** Up-to-date web browser that supports the Canvas learning management system; please refer to the system requirements for compatibility and information on using the Canvas app on mobile devices.
- **Internet Speed:** Minimum bandwidth of 8 Mbps upload/download speed to effectively engage in online activities and access multimedia.
- **Office 365 software:** Available for free download through GCSC Information Technology Services (ITS).

If you need technical support, contact the ITS Help Desk, available 24/7 at (850) 913-3303.