

Biology 1 Honors (BSC 2010H)

Fall 2022



Class Meeting Times

Lecture Section 204:	MWF: 9:30-10:20 am in BHC 127
Laboratory Section 212:	Tuesday: 10:30 am-1:20 pm in BIO 211
Lecture Section 205:	MWF: 12:30-1:20 pm in BHC 127
Laboratory Section 215:	Tuesday: 2:00-4:50 pm in BIO 211

Instructors

Dr. Christa Diercksen: Lecture Instructor



christa.diercksen@ucf.edu



BIO 201A
Office hours by appointment

Tiffany Dawson: Graduate Teaching Assistant



tiffanydawson@Knights.ucf.edu



Office hours by appointment

Communication

- E-mail is the fastest and preferred way to communicate with Dr. Diercksen. Please do NOT use Webcourses messages!
- All attempts will be made to answer emails within a 24-hour time period, M-F and Sun. *Note: Dr. Diercksen tries to be off-line on Saturdays.*
- Faculty can only communicate via email with students using Knightmail.
- Please include your course section # or lecture time and sign off the email with your full name and UCF ID# in your email.
- Emails should be written in a professional and respectful manner. Florida has a very broad open records law (F.S. 119) therefore all emails sent to UCF email may be subject to public disclosure.

Course Description

- *Credit hours:* 4
- *Course Prerequisites:* High school biology or consent of instructor
- BSC 2010C serves as an introductory course to the study of Biology providing foundational concepts for further biological coursework. BSC 2010C is a combination of 3 weekly in-person lectures sessions and one weekly in-person laboratory.

Course Purpose



Required for Biology Majors



Health-related professions



General Education Program



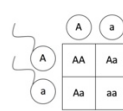
Pre-req for upper-level Bio courses

General Course Objectives

Note: Individual chapter objectives can be found in each chapter overview in our Webcourses.

- Introduction to biological terminology.
- Application of scientific concepts to a laboratory experience.
- Mastery of the broad range of topics of introductory biology necessary as a foundation to more detailed study in advanced biology classes or a pre-health career.
- Understanding of how basic biological principles apply to everyday life and society.

General Course Topics



Unit 1: Chemistry of Life

Chapter 1: Study of Life

Chapter 2: Atoms, Molecules & Bonds

Chapter 3: Macromolecules

Unit 2: The Cell

Chapter 4: The Cell

Chapter 5: Structure & Function of Plasma Membranes

Chapter 6: Metabolism

Chapter 7: Cellular Respiration

Chapter 8: Photosynthesis

Unit 3: Genetics

Chapter 10: Cell Reproduction

Chapter 11: Meiosis & Sexual Reproduction

Chapter 12: Mendel's Experiment & Heredity

Chapter 13: Modern Understanding of Inheritance

Unit 4: Molecular Biology

Chapter 14: DNA Structure & Function

Chapter 15: Genes & Proteins

Chapter 16: Gene Expression

Course Materials



- This course utilizes the free Open Educational Resource (OER), *Biology 2e* through OpenStax.
- The full text is available at <https://openstax.org> (Search for “Biology 2e” under the “Science” category) but through the OER license, a **curated version** is provided within our Webcourse in each content section. Students are **strongly encouraged** to read from the edited version for a better focus on pertinent course content.
- There is NO laboratory manual to purchase as all lab materials will be provided through downloads and links in our Webcourses.

- Students should bring a WiFi enabled device during lecture and lab (e.g. smartphone, tablet, laptop, etc.) for various activities.
 - We might occasionally use the free **Kahoot!** software to play various games and review in lecture so students should download the Kahoot! App to their smart device or laptop.
 - Lecture slides will be made available in each chapter's overview page in a pdf format *after* the appropriate lecture has been concluded.
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webcourses@UCF

- Access Webcourses: <https://webcourses.ucf.edu> and enter your NID and NID password.
 - For technical support, please contact Online@UCF Support:
 - <https://cdl.ucf.edu/support/> or call 407-823-0407 or email: webcourses@ucf.edu
 - Important: Please adjust your Webcourses' settings to allow notification of Webcourses' Announcements and/or check the Announcement section regularly.
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Important Information for Financial Aid Students!

Academic Activity Assignment (Reflection #1): Due date: Friday, Aug 26, 2022 at 5:00 pm

- Faculty members are required to document students' academic activity at the beginning of each course in order for proper distribution of financial aid.
 - In order to document that you began this course, please complete the "**Reflection #1**" in Webcourses by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so could result in a delay in the disbursement of your financial aid!
 - This assignment is **worth 5 points** (for everyone, even non-financial aid students) and will be scored *for completion only*.
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Attendance Policy

- The class will meet **in-person** during our scheduled course days and time unless conditions warrant a university approved change in course format, or Dr. Diercksen is unable to attend lecture due to Covid related illness and/or exposure or other health issues.
- Attendance is not mandatory for lecture but encouraged for healthy students. Students who are experiencing medical symptoms of any kind or who suspect they have been exposed to COVID-19 should consider not attending class until medically cleared.
- Dr. Diercksen may choose to wear a mask during lecture based on transmission levels in the community. Students can wear a mask or not based on their personal decision and risk analysis.

- Regardless if you are in attendance or not, students will be expected to be fully aware of any information given in lecture.
 - For unusual or lengthy absences that are documented, students *may* be provided Zoom lecture recordings from previous semesters if requested and approved by Dr. Diercksen. Students who are permitted to watch these recordings should be aware there could be minor changes to the content covered and the depth of that coverage from previous semesters.
 - There *may* be times when recorded lectures will be made available to all students in case background material is necessary to view before classroom activities.
 - For lecture exam days, please see the information below concerning make-up policies.
 - **All laboratories are mandatory.** Please see the detailed information below in the laboratory grading section.
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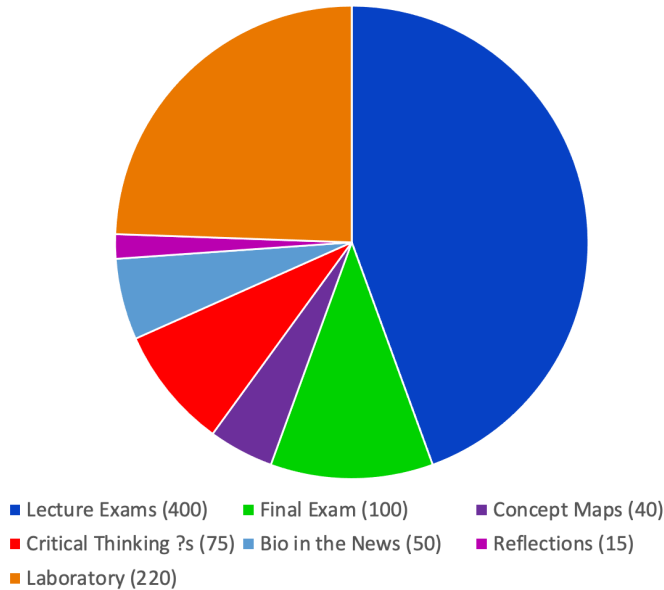


Grading

- You will receive one final course grade for BSC 2010C that combines your lecture and laboratory grades.
 - Grades are earned by a “point system” and individual grade categories are not weighted, e.g. one point from a lecture exam “counts” the same as one point from a Reflection.
 - Grades will be posted in Webcourses as available but are NOT to be considered official grades at any one given moment.
 - No grades will be given over the phone or by email according to Federal law (FERPA regulations).
 - Grades will NOT be routinely curved unless warranted by Dr. Diercksen’s discretion.
 - **Extra Credit:** Extra credit is NOT routinely available although opportunities *may* arise throughout the semester.
 - **Make-up work:** Make-ups for missed exams, quizzes or other due dates must be approved at the discretion of Dr. Diercksen and *will require documentation*.
 - The final course grade will be awarded using the scale seen below by calculating the percentage of your total earned points during the semester out of **900 possible points**
 - Final grade percentages will be rounded up from 0.5 to the next highest whole number, e.g. An 89.6% would round to 90% and the letter grade would be an “A”. An 89.4% would round to an 89% and the letter grade will be a “B+”. There are NO exceptions to this rounding scheme.
 - No minus grades, e.g. “A-” are given in this class.
 - **Biology majors:** A grade of “C” or higher is required to advance in your Biology coursework. For other majors, please check with your major’s department for more information.
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Grade Details

Course Grade: 900 total points



A	90-100%
B+	87-89%
B	80-86%
C+	77-79%
C	70-76%
D+	67-69%
D	60-66%
F	<60%

Lecture: 680 pts. (approximately 75% of course grade)



Lecture Exams: 4 exams, each worth 100 pts. (total 400 pts.)

- **Four (4)** exams based on lecture material will be given throughout the semester.
- Please see the course schedule for the dates lecture exams will be given and the chapters covered on each exam. *Note: Content covered could be changed based on need; Announcements will be made if necessary.*
- Lecture exams will be a mixture of multiple-choice questions as well as short answer, True/False or free response.
- NO lecture exam grades will be dropped.

Taking Lecture Exams:

- You must take your lecture exams with your registered section unless prior approval has been given by Dr. Dierksen.
 - To bring to every exam:
 - #2 pencil or other writing instrument.
 - Valid photo ID or UCF Student Photo ID card (You *may* be required to show it.)
 - You should know your UCF ID# (sometimes called your PID#)
 - DO NOT bring your own scantron to any exam. Scantrons will be provided if needed.

Make-Up Exams:

- For known conflicts, contact Dr. Diercksen to arrange for a make-up exam if approved.
 - For emergencies on exam days, please email Dr. Diercksen ASAP.
 - Possible make-up exams will be considered on a case-by-case basis. In general, be prepared with documentation such as a dated doctor's note.
 - If a student misses an exam for an *unapproved* reason, it is up to Dr. Diercksen's discretion to allow a student's Final Exam grade to count for the missing exam grade. This is NOT a guaranteed permission however, and students are strongly advised against purposely missing a lecture exam during the semester.
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Final Exam: 100 pts.

- The final exam will be given in the lecture classroom according to the UCF Final Exam Schedule for Fall 2022. Please refer to the course schedule for your section's scheduled Final Exam time.
 - The final exam is entirely **multiple choice, required** and **cumulative** (i.e. Covering material from ALL chapters covered during the semester.).
 - **Special Exemption:** Any student who has earned at least a **lecture exam point total of 382 points** (>96% average) from the 4 lecture exams going into the Final Exam will be exempt from taking the Final Exam.
 - For purposes of calculating their final course grade, students will be automatically awarded converted points of their lecture exam percentage for their final exam grade.
 - *Note: The Final Course Grade will also include all other assessments therefore being exempt from the Final Exam does NOT necessarily guarantee an "A" in the course!*
 - **Important: Failure to take the Final Exam (unless exempt) will result in a failing grade (F) for the course.**
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Critical Thinking Questions: 15 questions, each worth 5 pts. (total of 75 pts.)

- **Due Dates:** Please refer to the Course Schedule or Webcourses Calendar for each question's due date. *Note: All questions are available from the beginning of the course.*
 - Late submissions will be penalized 20% of the assignment's point value (-1 pt. each) each day late.
 - Questions will be submitted within the appropriate Webcourses' assignment either by attachment of a Word doc or pdf or by direct text input.
 - Questions are from the *Biology 2e* Critical Thinking sections for each chapter. Each chapter will have several questions, and students will **pick ONE question of their choice** to answer.
 - Each question is worth 5 points and will be graded based on depth of completion and accuracy. Some questions do not necessarily have a "right or wrong" answer, but how well statements are supported will be considered when grading.
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Concept Maps: 4, each worth 10 pts (total of 40 pts.)—This is a GROUP assignment.

- **Due dates:** Please refer to the Course Schedule or Webcourses Calendar for each Concept Map's due date.
 - Late submissions will be penalized 20% of the assignment's point value (-2 pts. each) each day late.
 - A concept map is a technique that can be used to not only review material in preparation for an exam but can also serve to connect concepts in a unit or course which can facilitate learning of a given topic.
 - Each unit of study (Units 1-4) will have its own concept map assignment due just before each unit exam.
 - Students will work in **groups of three (3) students** to create the concept maps. Only one concept map per group will be submitted to Webcourses, and **all students in a group will receive the same grade** for their concept map.
 - More details about how to complete the concept maps is given in the Webcourses' Assignments section but overall, students will be asked to organize concepts and terms (list of terms will be provided) for each unit a visual way.
 - Concept maps will be submitted online through Webcourses by image or pdf.
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Biology in the News: 50 pts.

- **Due date: Monday, October 24 at 11:59 PM.**
 - Late submissions will be penalized 20% of the assignment's point value (-10 pts) each day late.
 - Each student will be required to submit a written summary of a current science news story that involves a general topic we cover in class. More information and the rubric for this assignment will be given in Webcourses.
 - The assignment will be submitted within the appropriate Webcourses' assignment either by attachment of a Word doc or pdf or by direct text input.
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Reflections: 3 Reflections worth 5 pts. each (total of 15 pts.)

- **Due Dates:** Please refer to the Course Schedule or Webcourses Calendar for each Reflection's due date.
 - Late submissions will be penalized 20% of the assignment's point value (-1 pt. each) each day late.
- The concept of "Reflections" in education is based on the premise that learning and understanding can be furthered when students are able to have a personal relationship with the material. In particular, reflection enables students to see how the course content fits into a larger purpose and thus potentially allows to students to remember and truly master the material.

- The assignment will be submitted within the appropriate Webcourses' assignment by attachment of a Word doc or pdf or by direct text input OR attachment of a brief video file.
 - More information about what to include in Reflections can be found within the Assignment information.
 - Due to the personal nature of Reflections, assessment will be based not on a "right" or "wrong" response, but depth of thought in your Reflection could be assessed.
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Laboratory: 220 points (approximately 25% of course grade)



Lab Grade: 13 quizzes with two lowest dropped, each worth 20 pts. (total of 220 pts.)

- **Due Dates:** Please refer to the Course Schedule or Webcourses Calendar for each lab quiz due date.
 - Late lab quizzes will NOT be allowed except for documented and approved reasons.
- Each lab will have an **online** quiz worth 20 pts. which will be available **after 5:00 pm on the date the lab is completed and open for 1 week** and due at 11:59 pm.
- Lab quizzes are considered OPEN notes and will NOT have a time limit.
- The two (2) lowest of your 13 lab quizzes will be dropped which **includes absences** from a lab (e.g. You will receive a zero (0) for that lab, and this will be one of your automatically dropped lab grades.)
- While the labs themselves will be conducted with a lab partner or in other groups, the lab quiz is taken **individually**.
- The Honors BSC 2010 lab is a **required face-to-face laboratory** which meets weekly in **BIO 211**. Students are required to attend ALL laboratory sessions.
- Students must complete their lab in their scheduled lab section unless authorized by Dr. Diercksen (i.e. No switching lab times!).
- Generally, labs cannot be made up. If you miss a lab for a valid, documented reason (please refer to section above on missing lecture exams), you must contact Dr. Diercksen ASAP. It will be up to Dr. Diercksen's discretion on how to handle the missed lab which *may* include access to an online version of the lab or it *could* be considered one of the student's dropped lab grades.
- Students are required to be on time to lab. Attendance will be taken at the beginning of lab and students must remain in the lab the entire time until Dr. Diercksen authorizes students to leave if they have completed their lab. Students leaving the lab without permission will be counted as absent for the lab.
- Students are responsible for downloading the laboratory materials found in Webcourses before each lab. There will be NO extra lab sheets available, and each student is required to have their own lab worksheet.
- Detailed information about the lab and lab safety will be given during the first lab. There is a required **Lab Safety Contract** (available to download and print in Webcourses) that all students need to read and sign in order to participate in the lab.
- **Closed-toe shoes and long pants/skirts/dresses are REQUIRED!** If a student is not dressed appropriately, they will be asked to leave and will be given an **unexcused** absence.

- Certain labs may require the use of eye protection which will be provided in the lab.
- No smoking, eating or drinking is permitted in the laboratory. All drinks and food must be discarded before coming into the laboratory or placed in your bag. They are not to be opened, consumed, or out on the table at any time during the lab.

Course Schedule

- Please use the tentative dynamic course schedule **found in our Webcourses** to know the important due dates and which course topics are covered each week.
- Dr. Diercksen reserves the right to make changes if necessary to the course schedule, updating when needed and will notify students of any important changes.

Important Dates & Quick Links to Resources

- **October 28 at 11:59 pm: Withdrawal Date**
- **December 2 at 11:59 pm: Grade Forgiveness Date**



407-823-5555
or 911



[Student Handbook](#)



[Accessibilities](#)



[Academic Resources](#)



[UCF Cares](#)

- There many offices and programs at UCF for dealing with different student issues. It can be confusing and overwhelming to know where to turn sometimes.
- UCF has an umbrella website, UCFCARES.com which provides students with information for help and support for ALL aspects of student lives.
- If you are dealing with any issues such as health concerns, coping with tragedy or crisis in your personal or family life, having trouble finding stable and safe housing, eating disorders or hunger issues, hazing and discrimination, sexual abuse or assault, in need of alcohol or drug treatment or ANYTHING that is affecting your health or well-being—your first step is to visit www.UCFCARES.com, 407-823-5607.
- You will be put in touch with the right resource for your needs in a caring, discreet manner.

When in doubt or trouble, please reach out to your UCF community & UCF resources!

UCF Official Policy Statements

Code of Conduct

- Students should familiarize themselves with UCF's Rules of Conduct. According to Section 1, "Academic Misconduct," students are prohibited from engaging in:
 - *Unauthorized assistance*: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
 - *Communication to another through written, visual, electronic, or oral means*: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
 - *Commercial Use of Academic Material*: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
 - *Falsifying or misrepresenting* the student's own academic work.
 - *Plagiarism*: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
 - *Multiple Submissions*: Submitting the same academic work for credit more than once without the express written permission of the instructor.
 - *Helping another violate* academic behavior standards.
 - For more information about Academic Integrity, students may consult The Center for Academic Integrity.
 - For more information about plagiarism and misuse of sources, see "Defining and Avoiding Plagiarism: The WPA Statement on Best Practices".

Responses to Academic Dishonesty, Plagiarism, or Cheating

- Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, The Golden Rule. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary, respond to academic misconduct. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see <http://goldenrule.sdes.ucf.edu/zgrade>.

Inclusion, Safety, and Disability Accommodation at UCF

- The University of Central Florida considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. UCF expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. Dimensions of diversity can

include sex, race, age, national origin, ethnicity, gender identity and expression, intellectual and physical ability, sexual orientation, income, faith and non-faith perspectives, socio-economic class, political ideology, education, primary language, family status, military experience, cognitive style, and communication style. The individual intersection of these experiences and characteristics must be valued in our community.

- Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at www.shield.ucf.edu and <http://cares.sdes.ucf.edu/>.
- If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion or accurate assessment of achievement, please notify the instructor as soon as possible and/or contact Student Accessibility Services.
- For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:
- Title IX – EO/AA - <http://www.eeo.ucf.edu/> & askanadvocate@ucf.edu
Disability Accommodation – Student Accessibility Services
- <http://sas.sdes.ucf.edu/> & sas@ucf.edu
- Diversity and Inclusion Training and Events – www.diversity.ucf.edu
- Student Bias Grievances – Just Knights response team - <http://jkrt.sdes.ucf.edu/>
UCF Compliance and Ethics Office
- <http://compliance.ucf.edu/> & complianceandethics@ucf.edu
- Ombuds Office - <http://www.ombuds.ucf.edu>
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> [Links to an external site.](#) and logging in. Click on “Student Self Service” located on the left side of the screen in the toolbar, scroll down to the blue “Personal Information” heading on the Student Center screen, click on “UCF Alert”, fill out the information, including e-mail address, cell phone number, and cell phone provider, click “Apply” to save the changes, and then click “OK.”
- Students with special needs related to emergency situations should speak with their instructors.
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> [Links to an external site.](#) and logging in. Click on “Student Self Service” located on the left side of the screen in the toolbar, scroll down to the blue “Personal Information” heading on the Student Center screen, click on “UCF Alert”, fill out the information, including e-mail address, cell phone number, and cell phone provider, click “Apply” to save the changes, and then click “OK.”
- Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.
- This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder.

- During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on a public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have any concerns about this, please contact your instructor.

In-class Recording

- Students may, without prior notice, record video or audio of a class lecture for a class in which the student is enrolled for their own personal educational use.
- A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach enrolled students about a particular subject.
- Recording class activities other than class lectures, including but not limited to lab sessions, student presentations (whether individually or part of a group), class discussion (except when incidental to and incorporated within a class lecture), clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, private conversations between students in the class or between a student and the faculty member, and invited guest speakers is prohibited.
- Recordings may not be used as a substitute for class participation and class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct as described in the Golden Rule.