

BSC 1011C: General Biology II

Valencia College

Spring 2023

Instructor: Dr Graeme Lindbeck

Office: AHS-323

Office Hours:

AHS-323 (Mon., Wed.), Online via Zoom (Tues., Thurs., Fri.) – Meeting ID: 4075821256

Day Time

Mon. 9:00 - 10:00am; 4:00 – 5:00pm (On campus)

Tues. 10:00am - 12:00pm (Via Zoom)

Wed. 9:00 - 10:00am; 4:00 – 5:00pm (On campus)

Thurs. 2:00 - 4:00pm (Via Zoom)

Fri. 10:00am – 12:00pm (Via Zoom)

Phone: (407) 582-1256

E-mail: glindbeck@mail.valenciacollege.edu

Class Web Page: see “My Courses” in Atlas

Course Description:

Welcome to the Fundamentals of Biology II (BSC1011C) course. This course is a continuation of the two-part freshman biology program. This course, and the accompanying laboratory, provides a foundation for future advanced biology courses and is primarily intended for those students who plan on majoring in Biology.

This course focuses on biological systems at the organismal and supraorganismal levels with an emphasis on the unity and diversity of life, and organismal structure and function. Topics that will be covered include Darwinism and the origin of life, the diversity and origin of Eukaryotes, evolution and diversity of the three domains of life, animal and plant morphology, reproduction, development of animal behavior, population biology and ecology.

Course Objectives:

By the end of the course you will be able to:

1. Demonstrate competency in the application of critical thinking and scientific reasoning.
2. Demonstrate an understanding of the origin of life and the principles and processes of evolution.
3. Model the processes by which biologists establish phylogenetic relationships.
4. Identify characteristics, taxonomic classification, ecology and significance of prokaryotes.
5. Identify characteristics, evolution, taxonomic classification, ecology and significance of protists.
6. Identify characteristics, evolution, taxonomic classification, ecology and significance of plants.
7. Identify characteristics, taxonomic classification, ecology and significance of Fungi.
8. Identify characteristics, evolution, taxonomic classification, ecology and significance of animals.

Textbooks:

Required:

1. Campbell's Biology, Custom Edition for Valencia College, 4th edition, Volume 2 with MasteringBiology. (2021) Taken from Campbell's Biology, 12th edition. Pearson Learning Solutions. ISBN: 9780137352197

OR (Chose One)

- Campbell's Biology, Custom Edition for Valencia College, 4th edition, MasteringBiology code only with e-text. (2021) Taken from Campbell's Biology, 12th Pearson Learning Solutions. ISBN: 9780137352135
2. BSC 1011C General Biology II Laboratory Manual, 3rd edition (2020). Matthews, Lindbeck and Laurent. Hayden-McNeil. ISBN: 9781535924124
3. Van der Graaf's Photographic Atlas for the Biology Laboratory. 8th edition. (2018) Adams and Crawley. Morton Publishing Company. E-text version. ISBN: 9781617317668

Valencia College Core Competencies:

The faculty of Valencia College has identified four core competencies that define the learning outcomes for a successful Valencia graduate. These competencies are at the heart of the Valencia experience and provide the context for learning and assessment at Valencia College. You will be given opportunities to develop and practice these competencies in this class. The four competencies are:

1. **Think** – think clearly, and creatively, analyze, synthesize, integrate and evaluate in the many domains of human inquiry
2. **Value** – make reasoned judgments and responsible commitments
3. **Act** – act purposefully, effectively and responsibly
4. **Communicate** – communicate with different audiences using varied means

Assessment Method and Evaluation Scale:

1. **First Day Orientation Module:** Every student is required to complete the Orientation module on the first day of class. The activities in this module are designed to help you start the semester right by registering for, and setting up, Canvas and MasteringBiology, and providing some information for your instructor that will be invaluable in guiding class activities and discussions. Completion of this module is mandatory as you will only get access to the first course module (for Week One) by completing this module. Completion will also add the first set of points to your Escrow account (see below).
2. **Laboratories:** The labs are an integral part of the course, and you are required to attend all laboratory sessions. The labs will be held in AHS-317. Each week you are required to turn in the completed lab exercise/s from the previous lab session. This will account for the 15 points for each lab exercise. At the end of the laboratory session, you must sign out by initialing the sign-out sheet and entering the time you leave the laboratory. Failure to do so will constitute an absence. Laboratory sessions cannot be made up. If you have a valid, documentable reason for missing a lab, you must contact the instructor within 24 hours of the lab; you must also present your documentation to the instructor as soon as possible. You are allowed one unexcused lab absence. Any further unexcused absences prior to the withdrawal deadline will result in your being administratively withdrawn from class. If the unexcused absences occur after the withdrawal deadline you will receive an "F" for the semester.

The laboratory environment will often involve the use of and/or exposure to chemicals or other hazardous substances/equipment. If you are pregnant or plan on becoming pregnant during this course and are concerned about your exposure to these chemicals or hazardous

substances/equipment, please see your instructor to discuss possible alternative arrangements. Students are also invited to contact Trisha Whitmire, Title IX Coordinator/Equal Opportunity Officer, 407-582-3867, twhitmire2@valenciacollege.edu, regarding requests for alternative arrangements relating to pregnancy.

- 3. MasteringBiology:** Assignments have been created using the custom version of Pearson's online adaptive learning software known as MasteringBiology. If you have purchased the printed textbook you will find an access code for MasteringBiology bundled with the book. If you have purchased a used book or have a version other than the Valencia custom edition, you will need to purchase a subscription to MasteringBiology through the portal found in the Canvas page for this class.

Every student must complete the pre-knowledge assessment as this is a required assignment and is worth 40 points. There are also a reading and a quiz for each of the sixteen chapters we will cover this semester. Each primary assignment also has an adaptive follow-up assignment attached to it. You can test out of the follow-up assignment, and automatically receive any points associated with it, by achieving a minimum score of 95% on the primary assignment. At the end of the semester the percentage of the total points you have earned on these assignments will be calculated and included in your semester final score as a value out of 100 (see the paragraph on grading).

- 4. Class Discussion Board:** One of the issues we will have this semester is creating a learning community, that helps everyone learn and master the course material, while not being able to meet in person. One way we can work on this is to use the Discussion Board feature in Canvas. For every chapter we cover this semester, you will need to post to do the following:

- Carefully review the chapter learning objectives for this week.
- Choose two learning objectives from the chapters, answer the question, or write a paragraph description of a topic. Each topic requires a minimum of one paragraph with ~250 words. (Try to choose the topics that are not already covered by your peers)
- Your submissions should preferably be written in your own words, not cut and pasted from the internet. This will be good practice as you will be writing answers to some of the questions in the exams. However, if you choose to use other resources, you must provide the reference/s you used.
- Click "Reply" to post your discussion and submit your work.
- Review your peers' posts and respond to 2 of them with additional clarification, support, or resources to better understand the topics.

- 5. Critical Thinking Discussion Board:** A second class discussion board will be used for this exercise. During the semester, I will periodically post a multiple-choice question to answer. These are critical thinking questions and will give you an opportunity to improve your critical thinking skills. Each question will relate to topics we have covered, or are currently covering, in class. You will generally have one week to complete the assignment. For this assignment, there is no right or wrong answer to each question. Rather, you will be required to determine which of the answers is the best and explain why you consider it the best answer. You must also explain why you think each of the other answers is not the best answer. Post your answers to the "Critical Thinking" Discussion Board. After posting your answers, you are required to post responses to the answers from two of your classmates. A grading rubric will be provided to guide you in creating your answers and responses.

- 6. The Study Tools Project:** One of the great challenges' students face in transitioning from high school to college is learning the best study strategies to be successful. Unfortunately, many of the techniques you may have used in high school will not be effective at college. The aim of this project is to help you find those strategies, supported by research as being effective, that will work for you. Every student is required to participate in this project - it is worth 20 points towards your grade - but the bigger payoff will be in a better understanding of the course material, better results on the examinations, and a better grade at the end of the semester. The first part of the project

requires you to complete the following survey which will help you identify, and reflect on, your current study strategies. You will then have an opportunity to investigate study strategies that research has demonstrated are effective and successful. You will be required to select one of these to commit to using during the first unit of the course. After the first examination, and following each subsequent examination during the semester, a follow-up survey will be released. This will be an opportunity for you to reflect on how successful your chosen strategy has been, to consider how you might improve how you implement your strategy, and to consider other strategies you could use.

7. **Escrow Points (Extra Credit):** A maximum of five percent extra credit can be earned per semester. Up to five percent may be obtained by completing the exercises for which escrow points are awarded. Just as in the financial world, these points are "banked" during the semester. At the end of the semester, up to 5% will be added to your semester final percentage, based on the number of escrow points in your account. You may increase the value of your account by donating, or attempting to donate, a pint of blood during the semester. You will need to complete the blood center interview process to qualify for this extra credit. This is a onetime deal and available throughout the semester. The total value of your escrow account, however, cannot exceed the equivalent of 5% extra credit for the semester.
8. **Exams:** There will be five module exams during the semester plus a comprehensive final exam at the end of the semester. The module exams will consist of 25 multiple choice questions (2 points/question; 50 points), three short answer questions (minimum of one paragraph answer per question – 10 points/question; 30 points) and one longer answer question (two or more paragraphs; 20 points) for a total of 100 points per exam. The comprehensive final exam will consist of 60 multiple choice questions (2 points/question; 120 points), four short answer questions (minimum of one paragraph answer per question – 10 points/question; 40 points) and two longer answer questions (two or more paragraphs – 20 points/question; 40 points) for a total of 200 points.

The college has adopted the Honorlock application as the remote proctoring application for online examinations this summer. This is an extension for the Chrome browser and is required to access the exams in Canvas, along with a webcam and microphone. **You will be remotely monitored and recorded while taking the exam, including your internet activity, attempted use of other devices and interactions with other people at your location. Canvas will also keep a record of your internet activity, including during the exam.** Any clearly identified evidence of cheating on an exam will result in a zero for the exam. A second incidence will result in you being administratively dropped from the class. **You will be required to sign an academic honesty agreement, and this must be on file with me prior to the first exam. Please Note: If, for any reason, HonorLock is not available for an exam, report it immediately to HonorLock tech support and your instructor. Any exam taken without HonorLock will receive a zero.**

Learn more about Honorlock by clicking on the following link: <https://honorlock.com/students/>

NOTE: Students must use a computer with reliable internet access because excuses or failure to complete assessments due to computer error will not be permitted.

9. **Grading** Each of the graded components of the course will contribute to your final grade. These will be allocated as follows:
 - In-class exams – 40%
 - Final exam – 18%
 - Laboratories – 18%
 - Discussion boards – 12%
 - MasteringBiology – 6%
 - Critical Thinking Discussion boards - 4%
 - Study tools project – 2%

At the end of the semester, grades for the semester will be awarded using the following scale:

- A: 100%-86%
- B: 85%-71%
- C: 70%-56%
- D: 55%-46%
- F: 45%-0%

There will be no additional curving.

Class Policies:

1. **Valencia and Covid:** Valencia College has a robust and tested response to COVID and plans to keep our campuses, colleagues, and students healthy and safe and to ensure the continuity of student learning.

Health and Safety Protocols and Plans

Vaccines are strongly recommended for everyone who is eligible to receive one. Valencia is partnering with the state and local health departments to provide over 70 on-campus vaccine clinics between now and the end of September. The clinics are open to anyone (students, families, community members) and provide the vaccine at no charge.

To learn about vaccine safety, you can use this libguide created by Valencia librarians:

<https://libguides.valenciacollege.edu/COVID19Vaccines/home>

Masks are welcome, but not required, indoors on Valencia campuses. Valencia has ordered tens of thousands of masks which will be available in classrooms, building entrances, and other easily accessible locations.

Cleaning and Sanitization protocols are robust and in place. The facilities team has installed over 2,000 hand sanitizer dispensers and continues to implement cleaning protocols to keep our facilities clean.

COVID Illness Reporting and Contact Tracing

Valencia has robust illness reporting and contact tracing procedures in place. Two full time staff members are dedicated to supporting individuals with a COVID diagnosis, those who are identified as close contacts, and others who aren't feeling well.

A student who is not feeling well, has been in close contact with someone who is COVID positive, or has a positive COVID diagnosis, should not come to the campus and should as soon as possible contact their professor AND the COVID case management team for next steps, support, and clearance to return. Your professor will also contact the case management team in these situations to ensure reporting and receive guidance for the class. The case management team is well trained to implement CDC isolation and quarantine protocols, to clear students to return, and keep Valencia's classrooms safe. Reach out at covidillness@valenciacollege.edu for support – and know that the email box is monitored seven days a week.

A close contact is defined by the Centers for Disease Control and Prevention as someone who is within 6' of distance of a COVID positive individual for more than 15 cumulative minutes. Whether individuals are vaccinated or masked does not impact the definition of a close contact – and close contacts are quarantined based on CDC guidelines. This means that in order to keep everyone safe and to avoid quarantines of large numbers of individuals, Valencia College will work to ensure students distance from one another in class. Professors walking around the classroom and engaging in short times of close contact (less than 15 cumulative minutes) is an acceptable practice and does not require reporting.

Valencia has a partnership with Orlando Health to provide access to a virtual visit and COVID testing for those without insurance if needed.

2. **Technology Requirements:** The college uses the Canvas learning management system (LMS). The following link provides answers to common questions students may have about Canvas:

<https://valenciacollege.edu/faculty/canvas-resources/student-faqs.php>

The following link lists the minimum computer requirements to successfully run Canvas:

<https://community.canvaslms.com/docs/DOC-10721-67952720328>

If you have any concern about whether your computer system is sufficient to support Canvas, please read this document. Please note – while Safari can be used for Canvas, Pearson has announced that Safari is not compatible with MasteringBiology. If you own an Apple-based system and use Safari, you will need to install a second browser to use to complete the required MasteringBiology assignments. The recommended browsers are Chrome and Firefox. In addition to the minimum requirements, you are also required to have a webcam, either integral to your system or as an addition to your system.

In addition to these basic requirements, you will also need to download, and install, the smartphone app CamScanner and install it on your smartphone. This app turns your smartphone into a document scanner and saves your document into a single pdf document you can upload to Canvas. It is available for both Android and iOS phones and you will need it to turn in your chapter study guides (see below) and any other paper-based assignment this semester.

3. **Netiquette:** The term "netiquette" refers to the awareness of the need for a certain code of behavior (etiquette) in electronic environments (the net) ... Net + Etiquette = netiquette. Netiquette, while a general term, is complex at specific levels because there are so many different kinds of electronic environments, and so many different situations in which we may find ourselves in those environments.

Classes focusing on areas where electronic communication play a key, if as yet undefined, role in technical and professional communication, and it is our responsibility to be aware of our textual presence as it reflects upon our professional responsibilities, to ourselves and to our parents and students.

In order to maintain a positive online environment, we all need to follow the netiquette guidelines summarized below.

All students are expected to:

- show respect for the instructor and for other students in the class
- respect the privacy of other students
- express differences of opinion in a polite and rational way
- maintain an environment of constructive criticism when commenting on the work of other students
- avoid bringing up irrelevant topics when involved in group discussions or other collaborative activities

The following list summarizes the kind of behavior that is not acceptable. Each item listed below is grounds for removal from the class.

Students should not:

- Show disrespect for the instructor or for other students in the class
- Send messages or comments that are threatening, harassing, or offensive
- Use inappropriate or offensive language
- Convey a hostile or confrontational tone when communicating or working collaboratively with other students
- USE ALL UPPERCASE IN THEIR MESSAGES -- THIS IS THE EQUIVALENT OF SHOUTING!!!

4. **E-mail:** You should use email to ask questions about course content and policies, and as a tool to set up a one-on-one meeting with me if the online office hours conflict with your schedule. Please identify which class you are in (I teach multiple classes) and use the subject line "Meeting request" if requesting a meeting. Your message should include at least two times when you would like to meet and a brief (one-two sentence) description of the reason for the meeting. You can reserve time during Office Hours through Canvas Calendar if you so wish (not required). I strongly encourage you to ask questions about the syllabus and assignments by email. For more in-depth discussions (such as guidance on assignments) please plan to meet during my online office hours. Our conversations should take place in person in an online conference rather than via email, thus allowing us to get to know each other better and fostering a more collegial learning atmosphere.
5. **No Show Policy:** Class attendance is required for online classes. The instructor will withdraw students who are not actively participating in an online class and/or do not submit the required attendance activity or assignment by the scheduled due date in week one as a "no show." If you are withdrawn as a "no show," you will be financially responsible for the class, and a final grade of "W" will appear on your transcript for the course.
6. **Attendance:** The College believes that regular attendance and class participation are significant factors which promote success in college. Canvas, our course management system, logs your online activities and this record will be used to monitor your attendance. You are expected to participate in the weekly activities of the class, beginning during the first week of the semester and for the remainder of the semester, to remain in good standing in the class.
7. **Withdrawal:** You are responsible for initiating a voluntary withdrawal from the class prior to the published withdrawal date. You must withdraw prior to the withdrawal date in order to avoid being given an "F" grade. After the official withdrawal date, you cannot withdraw from the course and your grade will be what you have earned. Any student who withdraws from a class during a third or subsequent attempt in the same course will be assigned a grade of "F". For a complete policy and procedure overview on Valencia policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals) please go to:

<https://catalog.valenciacollege.edu/academicpoliciesprocedures/courseattempts/coursewithdrawal/>
8. **College Student Conduct Policy:** Valencia is dedicated not only to the advancement of knowledge and learning but also to the development of responsible personal and social conduct. As a registered student, you assume the responsibility for conducting yourself in a manner that contributes positively to Valencia's learning community and that does not impair, interfere with, or obstruct the orderly conduct, processes, and functions of the college as described in the Student Code of Conduct.
9. **Academic Dishonesty:** All forms of academic dishonesty are prohibited at Valencia College. Academic dishonesty includes, but is not limited to, plagiarism, cheating, furnishing false information, forgery, alteration or misuse of documents, misconduct during a test situation, and misuse of identification with intent to defraud or deceive. All work submitted by students is expected to be the result of the student's individual thoughts, research, and self-expression.

Whenever a student uses ideas, wording or organization from another source, the source shall be appropriately acknowledged.

Students shall take special notice that the assignment of course grades is the responsibility of the student's individual professor. When the professor has reason to believe that an act of academic dishonesty has occurred, and before sanctions are imposed, the student shall be given informal notice and an opportunity to be heard by the professor. Any student determined by the professor to have been guilty of engaging in an act of academic dishonesty shall be liable to a range of academic penalties as determined by the professor which will include, but not be limited to, one or more of the following: loss of credit for an assignment, examination or project; a reduction in the course grade; or a grade of "F" in the course. At the option of the professor, the campus president may be furnished with written notification of the occurrence and the action taken. If such written notice is given, a copy shall be provided to the student.

Students guilty of engaging in a gross or flagrant act of academic dishonesty or repeated instances of academic dishonesty shall also be subject to administrative and/or disciplinary penalties which may include warning, probation, suspension and/or expulsion from the college.

- 10. Students with Disabilities:** Valencia is committed to ensuring that all of its programs and services are accessible to students with disabilities. [The Office for Students with Disabilities \(OSD\)](#) determines reasonable and appropriate accommodations for qualified students with documented disabilities based upon the need and impact of the specific disability. Any student requiring course accommodations due to physical, emotional or learning disabilities must contact the instructor and provide a Notification to Instructor form by the end of the second week of class. To obtain a letter of accommodation, contact OSD at 407-582-2229.
- 11. Asking for help:** Ask for help if you need it! Do not wait until the end of the semester to ask for help. The sooner you ask, the more beneficial it will be. Valencia tutoring is available online through Canvas Conferences. For more information, click on the following link:

<https://libguides.valenciacollege.edu/distancetutoring>
- 12. Brainfuse Online Tutoring:** Brainfuse is a free online tutoring service, where you can receive live, online tutoring as well as submit your essays for comments. To access this resource, log into Canvas and click on the "Brainfuse" link in the Navigation panel.
- 13. BayCare Services:** BayCare is a private and confidential counseling service contracted by Valencia College that provides short-term assistance to credit students who need to resolve problems that are affecting their college performance. Examples might include stress, relationship/family issues, alcohol/drug problems, eating disorders, depression, and gender issues. If you are experiencing any of these issues, call 1-800-878-5470 to speak to a professional counselor. For more information, log into Atlas, click on the "Students" tab, and click on "BayCare Health System," located under "Health and Wellness."
- 14. Copyright:** Material obtained during this course can only be circulated within the class only. Students must refrain from using or displaying the pictures, drawings, and presentations outside this course.
- 15. Consent:** By continuing in this course the student accepts the professor's policies and procedures to conduct class and lab, accepts the grading procedure, accepts all other things outlined in this syllabus, and accepts amendments/changes. Valencia College is committed to providing each student a quality educational experience. Faculty members have set high standards of instruction for themselves and for you. If you have a problem in a class, your first step is to talk to your instructor. If you are still dissatisfied, you may talk with the academic dean of the division for your class. We will work together to resolve any issues that arise.

Tentative Course Schedule:

(NOTE: This is a tentative schedule, and the instructor reserves the right to change this schedule without notice)

Week Beginning	Lecture Schedule	Laboratory Exercise
January 9	Chapter 22	Lab 1 – Scientific Articles
January 16	Chapter 23	Lab 2 – Paleontology
January 23	Chapter 24	Lab 3 – Population Genetics
January 30	Chapter 25, Exam 1 (ch 22-24, February 4)	Lab 4 – Taxonomy
February 6	Chapter 26	Lab 5 – Bacteria and Archaea
February 13	Chapter 27	Lab 6 – Protist Diversity
February 20	Chapter 28, Exam 2 (ch 25-27, February 25)	Lab 7 – Seedless Plants
February 27	Chapter 29	Lab 8 – Seed Plants
March 6	Chapter 30	Lab Practical I, Lab 9 – Fungi
March 13	Spring Break	No Lab.
March 20	Chapter 31, Exam 3 (ch 28-30, March 25)	Lab 10 – Embryology
March 27	Chapter 47	Lab 11 – Invertebrates I
April 3	Chapter 32	Lab 12 – Invertebrates II & III
April 10	Chapter 33 and 34 Exam 4 (ch 31-32, 47, April 15)	Lab 13 - Chordata
April 17	Chapter 34, Exam 5 (ch 33-34, April 22)	Lab Practical II
April 23	FINALS WEEK	FINAL EXAM – April 28

- **The final exam will be available online from 11:59 pm, April 26 until 11:59 pm April 27.**

Vacations and other important dates:

- January 16 – Martin Luther King Day (College closed)
- January 17 – Drop/Refund Deadline
- February 10 – Learning Day (No classes)
- March 13-19 – Spring Break
- March 24 – Withdrawal deadline
- April 24 – Finals Week begins