

# BSC 1005: Biological Science

## Valencia College

### Fall 2022

**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

Tues. 10:00am - 12:00pm

Wed. 9:00 - 10:00am; 4:00 – 5:00pm

Thurs. 10:00am - 12:00pm

Fri. 10:00am – 12:00pm

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**Class Web Page:** see “My Courses” in Atlas

### Course Description:

Welcome to the Biological Science (BSC1005) course. This course, and the accompanying laboratory, provide an introduction to the essential principles of biological science. Topics include, but are not limited to, the nature of science and the scientific method, chemistry for biology, cell structure, metabolism, reproduction and genetics, organisms, evolution theory, and classification of organisms. This is a general education course for non-biology majors. It is also recommended for students who need preparation before enrolling in a biology course for science majors. Students should be prepared to complete college level reading, writing, and mathematics assignments as part of this course.

### Course Objectives:

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

1. Identify levels of organization within and between organisms
2. Explain how living organisms' function.
3. Identify and apply the use of scientific methods.
4. Identify and apply basic components of the theory of evolution to species development.
5. Effectively analyze, evaluate, synthesize and apply information and ideas from diverse sources and disciplines.
6. Use processes, procedures, data, or evidence to solve problems and make effective decisions.

### Textbooks:

You will need to purchase the following for the online course for Summer:

1. Simon, et. al., (2019) Campbell Essential Biology, 7th Edition. Modified Mastering Biology W/Etext T/A. Pearson Higher Education. ISBN: 9780134819426

You will also need a PDF scanner app for your cell phone to convert written documents into a form you can submit for grading via Canvas. The two most commonly used are CamScanner and Adobe Scan, but you can use any app that you wish so long as you can create PDF documents for submission.

## 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 Methods and Evaluation Scale:

**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).

**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 29 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).

**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. 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 the 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.

**Infographics Assignment:** This semester you will be doing two individual infographic assignments plus a third assignment in small groups. These assignments will give you with an opportunity to teach both yourself and your classmates, both of which are known ways to master things you want to learn (“You cannot really say you know something until you can teach it to someone else”). Each of these assignments will be turned in through the class discussion board and you will be required to post two reviews of your classmates posted work. Descriptions of each assignment will be posted on Canvas, along with the grading

rubrics that will be used to grade the assignments. Each of these assignments are worth 25 points towards your final grade.

**The Study Tools Project:** One of the great challenge's 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 does count towards your grade - but the bigger payoff can 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 asked 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.

**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.

**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 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 – this will be password protected and you will only receive the password if your signed agreement is on file. 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/>

The examinations are closed book - your textbook, study guides and any other notes may not be use during the examination. All portable devices (smartphones, smartwatches, etc) must be placed where you cannot reach or see them. You must complete the HonorLock ID authentication and room scan (including under your desk) process before you begin the examination. Video, sound and your computer activity will be recorded while you are taking the examination. Once you begin the exam, you will have 75 minutes to complete the examination. If you choose to leave the exam for any reason, the timer will continue to run.

At the end of the 75-minute time period, your examination will be terminated and submitted, and you will not have another opportunity to take the examination. Make sure that you are prepared to stay at the computer for the full duration of the exam.

During the exams the following conditions must be observed:

- You must work in a space where no other individuals are present, or enter the room, during your exam session.
- Your face and eyes must be visible at all times. The lighting of your face must allow this – no backlighting to limit your visibility.
- You may not look down or to the left or right. You must look at the screen. If you need to look elsewhere, you may look up for inspiration.
- You must sit upright in your chair, face the screen and not move around or wriggle excessively in your chair.
- There must be no extraneous background noise. No music, no other sounds in the room.
- You may not read the questions and answers out loud. You may read them to yourself in your mind, but you may not read them out loud.

If there is a suspicion of cheating, you will be required to attend a Zoom conference with me during which you will have to answer a minimum of five random questions about material on the exam. If you are able to answer the questions, I will add 3 extra points to your exam score. If you cannot, your exam will be invalidated. Failure to attend this conference will be considered an admission of cheating and treated as such.

**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.

**Grading:** At the end of the semester, final grades will be calculated as follows:

- In-class exams – 49%
- Final exam – 20%
- Discussion boards – 14%
- MasteringBiology – 10%
- Infographic assignments – 5%
- Study tools project – 2%

At the end of the semester, your score for each of these components will be added together and converted to a percentage. 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:**

**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. More information on vaccines can be found at:

<https://valenciacollege.edu/about/coronavirus/covid-19-vaccine>.

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**

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.

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 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.

**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 need to download the Google Chrome browser as it will be required for all online examinations this semester. This browser is available for Windows- based, Apple-based, and Chromebook systems. You will be required to install the Honorlock extension in the Chrome browser in order to access the exams in Canvas. This extension turns the browser into a lockdown browser and allows remote exam proctoring. For more information, see the paragraph on exams above. You will need to download, and install, a PDF app for your smartphone, such as CamScanner or Adobe Scan, 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.

**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 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!!!

**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.

**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.

**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.

**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".

### **Course Attempts/Course Withdrawal**

Agencies and organizations which provide financial assistance/scholarships (federal and state government, businesses, etc.) may have requirements relative to withdrawal, course repeats and grade forgiveness which are more stringent than those described below. It is your responsibility to verify the effects of enrollment and/or withdrawal upon your financial assistance (financial aid, scholarships, grants, etc.).

According to State Rule 6A-14.0301, you may attempt the same course only three times at Valencia including the original grade, repeat grades and withdrawals at any point in the term. Students in Bachelor's degree programs are limited to two attempts. The same course usually means the subject prefix and course number are the same when posted on a Valencia transcript. Courses that have been deemed equivalent will all count as attempts even if the current course number is not the same as your previous attempt(s). Being enrolled in a course for credit beyond the Drop/Refund Deadline counts as an attempt. The Drop/Refund Deadline for each term is listed in the Academic Calendar in the online official catalog.

### **After the Withdrawal Deadline**

A student is not permitted to withdraw after the withdrawal deadline. A professor may withdraw you up to the beginning of the final exam period for violation of the class attendance policy, as published in the faculty member's syllabus, in which case you will receive a grade of "W". If the professor does not withdraw you, your grade will be what you had earned.

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/courseattemptscoursewithdrawal/>

**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.

**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.

**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 disability 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.

**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>

**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.

**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.”

**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.

**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)

You are required to read the assigned chapters listed below before watching the narrated presentations. The instructor assumes that you have done so and your success in the class will be, in part, dependent on you doing so.

Date	Chapter
August 22	Chapter 1
August 29	Chapter 2
September 5	Chapter 3
September 12	Chapter 4, <b>Exam One (Chapters 1 – 3) September 17</b>
September 19	Chapter 5
September 26	Chapter 6
October 3	Chapter 6
October 10	Chapter 7, <b>Exam Two (Chapters 4 – 6) October 15</b>
October 17	Chapter 8
October 24	Chapter 9, <b>Exam Three (Chapters 7 – 8) October 29</b>
October 31	Chapter 10
November 7	Chapter 10
November 14	Chapter 11, <b>Exam Four (Chapters 9- 10) November 19</b>
November 21	Chapters 11 and 12
November 28	Chapter 12, <b>Exam Five (chapters 11-12) December 3</b>
December 5	<b>FINALS WEEK – Final Exam, December 8</b>

The final exam will be available online from 11:59 pm, December 7 until 11:59 pm, December 8

**Vacations and other important dates:**

- August 29 – Drop/Refund Deadline
- September 5 – Labor Day (College closed)
- October 28 – Withdrawal deadline
- November 11 – Veteran’s Day (No classes)
- November 23-27 – Thanksgiving (College closed)
- December 5 – Finals Week begins