**Valencia College**

**General Biology I, BSC 1010C**

**CRN 1222**

**Fall 2018**

**Professor:** Susan S. Matthews, B.S., M.A.

**Office**: AHS -215

**Phone**: 407-582-1384

**Email:** smatthews@valenciacollege.edu

**Office Hours:** Monday 9:00-10:00 AM

Tuesday 11:45 AM-1:00 PM

Wednesday 9:00-10:00 AM

Thursday 11:45 AM-1:00 PM

Friday 7:00-9:30 AM (online)

Saturday 7:00-9:00 PM

**Class Meeting:** TR AHS 209 2:30-5:15 PM

TR AHS 318 2:30-5:15 PM

**Prerequisites:** High School Chemistry or Biology

**Instructional Tool:** Blackboard (This may be accessed in the pull-down menu and listed on online courses.) This is not an online course but some information is sent through Blackboard.

**Credit Hours:** 4

**Course Description:** A general biology (with laboratory) course designed to provide understanding of the principles of biology, chemistry, cell biology, energetics, reproduction, molecular genetics, evolution and ecology. The diversity of the biological world will also be examined. The laboratory that accompanies this course will reinforce many concepts. The laboratory will also allow the student an opportunity to become technically functional in a science laboratory.

**Course Learning Outcomes:**

1. Students will describe the fundamental characteristics of living organisms.
2. Students will describe the fundamentals of molecular structure and molecule functions in living organisms.
3. Students will describe the fundamentals of structure, function, and evolution of eukaryote and prokaryote cells.
4. Students will describe the integrative structure and function of cells in the structure and function of eukaryote organisms.
5. Students will describe the fundamentals of the molecular and cellular basis of metabolism and relationships to ecology and evolution.
6. Students will describe the fundamentals of asexual and sexual reproduction at the cellular and organismal level and the genetic and evolutionary significance.
7. Students will describe genes and the fundamentals of the processes and patterns of inheritance in eukaryote organisms.
8. Students will describe or model the fundamentals of eukaryote molecular genetics to include: structure and function of DNA, RNA, and ribosomes pertaining to the expression of our genes into polypeptide phenotypes.

**Class Design:** This class is designed to meet the needs of students who require preparation at an introductory level in Biology. The style of presentation is lecture/discussion with group work and an emphasis on appropriate participation by the students.

Due to the large amount of course content as well as concepts, learning styles have been selected as those benefiting most students. Questions and appropriate discussions are welcome.. Group work will be carried out in the lecture setting.

The laboratory experience benefits students of many learning types in hands-on experiments. Collaborative work is emphasized in this setting.

**Goals:** In addition to specific course objectives which are listed in the BSC Course Outline, the course will also reinforce the following competencies wholly or partially: Valencia Community College Student Competencies!. Think critically and make reasoned choices by acquiring, analyzing, synthesizing and evaluating knowledge. 2. Read, listen, write and speak effectively. 3. Understand and use quantitative information and CLAST Competencies: 1. Reading Skills (literal comprehension, critical comprehension) 2. Mathematics Skills. 3 Logical Reasoning Skills.

**Text:** Biology, Campbell, 11th ed.

General Biology Laboratory Manual, by Graeme Lindbeck and Susan Matthews

**Supplements**

Study Guide by Campbell is recommended.

Labs have been coauthored by Professor Susan Matthews and Dr. Graeme Lindbeck and are available in the bookstore. Students must have a laboratory manual when entering the lab. Students must wear appropriate clothing when entering the lab. See Canvas for the list of Laboratory Rules. Lab coats, closed-toe shoes and hair touching collar secured with a band or clip.

**Evaluations:**

Grades will be based on a point system. Students are encouraged to keep a notebook section for recording their grades. Four lecture tests will be given for a total of 400 points from major tests. Two comprehensive Lab Practicals (50 points each) will be given. The following minimum percentage of total points will constitute an A = 90%, B = 80%, C = 65%, D = 50%. Any total percentage less than 50% will be recorded as an F. It is the responsibility of the student to record his/her own grades and calculate his/her class standing. Tests and exams will consist of objective and subjective questions. Extra credit may be awarded for essays relating to the topics on tests as well as chapter annotations. Chapter annotations are chapter notes that the student has written prior to the discussion that is held in the classroom. These must be presented prior to the lecture and are checked during the first 10 minutes of class. They will be awarded 3 points per chapter. Late notes will be checked but will not be awarded points.. Unannounced quizzes may be held at the beginning or the end of lectures or laboratories. The total points awarded for these will not exceed 100 points. Study groups are strongly recommended.

All exams will require machine‑scored answer sheets. These can be purchased in the campus bookstore. You are responsible for making sure you have a green scantron sheet of the correct type for each exam. You need to bring a #2 pencil. Your name and ID must be printed on the answer sheet and will be checked as you leave the exam room. You are responsible for your personal belongings in the exam rooms. During Laboratory practicals, all books, book bags and notes must be placed to the side of the room prior to the start of the exam. Anyone arriving more than 10 minutes late may not be allowed to take the exam and must make arrangements to take the exam as a makeup. Scantrons will not be returned to students; however, they may be examined in the instructor's office during office hours.

Grades will not be given out over the phone. Grades will be made available to students as soon as possible after the exam in a manner that preserves student privacy.

**Attendance:** Students will be expected to attend every class lecture and lab. Documented emergencies will be dealt with on a case-by-case basis. Tardy students must check in with the professor at the end of class in order that the absence be stricken from the record. One lab may be excused. Subsequent missed laboratories will result in a 10 percentile point deduction (each) from the practical. A laboratory is counted as missed if the student arrives more than 20 minutes late without a written excuse from an acceptable source or if the student leaves without completing the laboratory or passing a quiz given by the professor. Each student must sign in and out of the laboratory or the laboratory is counted as missed. There are no make-up labs.

**Withdrawal Policy** : The date for withdrawal varies from session to session. The professor will not drop you from the course. You are solely responsible for initiating the voluntary withdrawal process. Please refer to your College Catalog Addendum stating the Withdrawal Policy for further information. The date of last attendance is the date the withdrawal process begins. (It is assumed that a student is in attendance unless he/she has withdrawn from the course.) Withdrawal of a student, due to bad conduct may be completed by the Dean. For this session the date for Withdrawal is 11/09 /2018.

**Refund deadline**: a full refund for the course will be September 4th.

For a complete policy and procedure overview on Valencia Policy 4-07 please got to:

<http://valenciacollege.edu/generalcounsel/policy/default.cfm?policyID=75&volumeID_1=4&navst=0>

In order to academically maintain financial aid, students must meet all of the following requirements:

* Complete 67% of all classes attempted, and
* Maintain a Valencia GPA of 2.0 or higher, and
* Maintain an overall GPA of 2.0 or higher, and
* Complete  degree within the 150% timeframe

Detailed information about maintaining satisfactory academic progress (SAP) can be found at:

<http://valenciacollege.edu/finaid/satisfactory_progress.cfm>

**Security Statement**

This statement comes from our chief of security:

“*We want to reassure you that our security officers are here around the clock to ensure the safety and security of the campus community. It’s important to remain alert and aware of your surroundings, especially during the early morning or evening hours. Remember that you can always call security for an escort if you feel uncomfortable walking alone on campus. White security phones can also be found in many of our buildings; simply pick up the phone and security will answer.  
Finally, report any suspicious persons to West Campus Security at 407-582-1000, 407-582-1030 (after-hours number) or by using the yellow emergency call boxes located on light poles in the parking lots and along walkways.”*

**Classroom Rules of Student Behavior**

The Student Code of Conduct in the current Valencia Student Handbook:[**http://valenciacollege.edu/studentdev/CampusInformationServices/**](http://valenciacollege.edu/studentdev/CampusInformationServices/) Disciplinary action could include withdrawing a student from class or initiating a disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions.

Any student who engages in any prohibited or unlawful act that results in the disruption of a class will be asked to leave the class.

Violations of any classroom or Valencia rules may lead to disciplinary actions up to and including expulsion from Valencia.

Use of cellular phones or other inappropriate electronic devices is prohibited. Any student whose behavior is not acceptable will be asked to leave the lecture hall or lab. room. The student will leave upon request of the professor.

Cheating is not acceptable by Valencia or by this professor. **A grade of F will be recorded for the entire course if the student is found cheating**..

**No Food or Drink in the Lab Rooms**

**Electronic devices** such as cell phones, laptops, recording equipment, etc. are prohibited.

**Baycare Behavioral Health’s Student Assistance Program**

“*Valencia is committed to making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help that may assist them with psychological issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. Students have 24 hour unlimited access to the* ***Baycare Behavioral Health’s confidential student assistance program*** *phone counseling services by calling* ***(800) 878-5470****. Three free confidential face-to-face counseling sessions are also available to students.”*

**Students with Disabilities Information:**

Students must request accommodations through the proper channels in a timely manner.

*"Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class; accommodations will not be applied retroactively. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities."*

*West Campus SSB, Rm. 102 Phone: 407-582-1523 Fax: 407-582-1326*

**College Catalog/Student Handbook/Policy Manual**

* A full description of all College policies can be found in the College Catalog at <http://valenciacollege.edu/catalog/>
* The Student Handbook can be found at: <http://valenciacollege.edu/studentdev/CampusInformationServices/>
* The Policy Manual can be found at <http://www.valenciacollege.edu/generalcounsel/>
* The college calendar can be found at <http://valenciacollege.edu/calendar/> for important dates.

**Support Services**

Tutoring services are available in bldg. 7-240 (extension 1633.)

Valencia College offers a variety of SkillShops: short seminars covering a variety of topics which deal with student success, goals and purpose. To check out Valencia’s Skillshop offerings, go to: <http://valenciacollege.edu/studentservices/skillshops.cfm>

**Weather Emergencies**

In the case of weather emergencies, you can find out about school closings by signing up to update your information for Valencia Alerts.

**Faculty/Student communication**

Students should communicate with me at [smatthews@valenciacollege.edu](mailto:smatthews@valenciacollege.edu) if they are unable to attend office hours. The professor will attempt to respond within 48 hours. Document technical issues with copies of emails or screen shots of communications. I encourage you to check emails and Blackboard daily.

Valencia is committed to providing students with a quality educational experience. If the student has a problem with the class the first contact should be with the instructor. If the student is still dissatisfied he/she may contact the dean of the department for the class. All parties will work toward resolution..

**Study tips**

Here isan example:

“*LEARNING IS AN ACTION VERB!! Most students need to do more than just sit through lectures and reread their notes.* ***Spend 1-2 hour blocks of time EVERY DAY*** *actively writing or discussing concepts to make them a part of your memory. Use the words you learn often, they will sink in better☺.*

*Here are* *some study and classroom management tips that have assisted former students:*

*- Attend class daily and don’t be tardy. The introduction to each lecture explains the purpose of the entire lecture. Students who follow this rule won’t miss important information.*

*- REWRITE YOUR NOTES soon after the lecture; if the instructor permits, tape record lectures and replay to refresh your memory when you rewrite your notes.*

*- Create flash cards with questions you make up from the lecture and lab with answers on the back.*

*- Use mnemonic devises and other games to remember concepts; go to Google images, YouTube and Khan Academy for additional pictures and videos to clarify concepts.*

*- Make lists of confusing topics from your studying and ask questions.*

*- Take advantage of the professor’s office hours.*

*- JOIN A STUDY GROUP and predict what questions the professor could ask on the test.*

*- Get the telephone number of one or more buddies in case you are absent from a class.*

**Disclaimer:** Changes in syllabus and/or schedule may be made at any time during the term by announcement of the professor. A revised syllabus may be issued at the discretion of the instructor

**Schedule:**

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

Please read the assigned chapters listed below before coming to class. The instructor assumes that you have done so.

|  |  |  |
| --- | --- | --- |
| Week | Lecture Schedule | Laboratory Exercise |
|  |  |
| 1 | Chapters 1 & 2 | Reaction Times  Scientific Method |
| 2 | Chapters 3 and 4  Chemistry of Life CD | Atoms and Molecules |
| 3 | Review, Quiz Bowl and Exam 1 | Use of the Microscope |
| 4 | Chapters 5 and 6 | The Cell |
| 5 | Chapters 6 and 7 | Diffusion I |
| 6 | Quiz Bowl and Exam 2 | Diffusion II |
| 7 | Chapters 8 and 9 | Practical Exam |
| 8 | Chapters 9 and 10 | Enzymes |
| 9 | Chapters 10, Exam 3 | Cellular Respiration |
| 10 | Chapters 12 and 13 | Photosynthesis |
| 11 | Chapters 13 and 14 | Mitosis and Meiosis |
| 12 | Exam 4, Chapter 15 | Mendelian Genetics and Genetics Problems |
| 13 | Chapters 16 and 17 | Lecture |
| 14 | Chapters 18 | Thanksgiving |
| 15 | Lac Operon (Chpt. 19) | Human Phenotypes and Review |

Final Lab Exam: December 10th

Final Lecture Exam will be held in AHS 209.

LETTER FROM THE DEAN

Expectations of a Valencia College Science Student

Welcome to the Science Division of Valencia College’s West Campus; we are enthused to have this opportunity to assist you in achieving your educational goals.  Higher education is a privilege and an opportunity; it is your responsibility to realize that you are in control of those behaviors and actions that can enable success in this course.

From your professors, **you can expect** the following:

1.     They will be prompt, courteous and respectful.

2.     They will provide a professional learning environment throughout the entire scheduled instructional period.

3.     They will provide an up-to-date syllabus; when changes need to be made, they will announce changes in a manner that is conveyed to all students in their class.

4.     They will provide you with a course that is of necessary rigor to prepare you for the career you have chosen; because the class you are taking transfers to a four year college or university, it will be taught with the same academic expectations.  The bonus of starting your education at Valencia, when compared to attending a four year college, is you will be able to get more personal attention with small class sizes and you will be able to save money; the classes are not easier.

5.     They will offer time outside of class to discuss your questions.

6.     They will be available to discuss your class concerns in private, outside of class time; you should try to resolve your class concerns with your professor before you try to voice your concerns with administrators.

7.     They will respond to emails within 2 business days.

8.     They will expect from you what they have expected from the many students who passed their classes in the past.

In return, this is **what your professor will expect from you**:

1.     You will be prompt, courteous and respectful.

Prompt means you come to class on time, ready to work, with all assignments completed before you enter class or lab.  It means that you have studied, that all conversations, texting and diversions come to a stop and that you are ready to contribute to a positive learning environment from the beginning of the class or lab.

Courtesy means you are polite in your attitude and behavior towards your professor and classmates.

Respectfulness means that you regard everyone’s classroom experience as valuable to them, that you accept your professor’s expertise and experience to create relevant course objectives and that you treat college and personal property with care.

2.     You will read your syllabus; your syllabus is a contract between your professor and you.  Be aware of deadlines to complete assignments on time and know your professor’s attendance policy.  You will need to attend class for the full length of time allotted to your science class and lab.

3.     You will be aware of Valencia College policies and procedures found in the college catalog; ignorance of policies and procedures doesn’t mean they don’t apply.

4.     You will be serious about learning; it is your responsibility to be an active participant in your own learning.  You will need to devote sufficient time to learn the material presented by your professor; for most students, this means you will need to spend at least two hours studying for every hour of instruction.  Learning is an action verb; you will need to do more than sit through class and reread your notes to be successful.  To succeed in higher level classes, you must retain the information, concepts and skills you will learn; this can only happen if you work at learning to make the course content a part of your long term memory.  Do not cram!!

5.     You will be encouraged to produce your own study guides.  Most college professors do not provide study guides, but they can give you tips that will help you produce your own study guides to gain a better understanding of the course content.

6.     You will be expected to participate fully in classroom activities.  The work you produce must be your own; cheating in any form is not tolerated and your professor will have specific consequences, in their syllabus, which will be enforced should cheating occur.

7.     You will be expected to contribute to a positive learning environment.  Avoid classmates who speak negatively, or who have a negative outlook, about your class or your professor.  Instead, get to know your professor during office hours; you will learn much more with a positive attitude.

8.     You will be held to a high standard of maturity and responsibility.  Disruptive behaviors will not be tolerated in the classroom or lab.  First time disruptions will be handled by your professor and may include a request that you leave the class or lab.  Very serious or repeated disruptions will be reported, to the Dean of Science and the Dean of Students, with specific consequences that can include your permanent removal from the class.  Disruptions include:

-     Being noisy when arriving late to class or leaving early.

-     Carrying on private conversations while the professor is talking.

-     Disrespectful language, tone and mannerisms.

-     Sleeping or attempting to sleep in class.

-     Repeatedly asking unnecessary or irrelevant questions.

My wish is that you get the best learning value from the science classes that you are taking.  With everyone abiding by the expectations in this letter, your science classes at Valencia should be the next step in achieving your academic dreams.

Dr. Robert Gessner

West Campus Dean of Science

Valencia College

**LETTER FROM THE DEAN**

**Expectations of Academic Integrity**

Welcome to the Science Division of Valencia College’s West Campus; we are enthused to have this opportunity to assist you in achieving your educational goals. In working to provide you with the best learning experience at Valencia College, my expectation is that each of our faculty and students maintain the highest ethical academic standards.

From your professors, you can expect the following:

1. They will be on time to class and available during their scheduled office hours.
2. They will return graded tests, labs and other assignments when promised and within a reasonable period of time.
3. They will answer emails and phone calls within 48 business hours.
4. They will properly cite their references and resources, where applicable.

From you, we expect the following:

1. You will take your exams without referring to any books, notes, electronic devices or classmates unless you are specifically instructed that a test is open-book or collaborative.
2. You will not tell other students about test questions or answers before or during their exam and you will protect the exam from being seen by others.
3. You will avoid even the appearance of cheating by not looking in the direction of other exams, by not wearing clothing/hats/visors that hide your eyes, by keeping your belongings, other than pens, pencils and erasers away from your desktop, by going to the restroom before the exam and by asking your professor for permission and supervision if you need to retrieve another pen, pencil or eraser from your backpack or purse.
4. You will not allow anyone else to be the author of any part of your essays, lab reports or other written assignments and you will not include any materials from any sources (books, journals, other students, the internet, etc.) unless you give credit to those sources.

It is my hope that you will think about why it is important that we each show academic integrity and how cheating and plagiarism affect all of us, including those guilty of these academic crimes. Some students think that it only hurts their grade if they get caught cheating or plagiarizing, but cheaters typically lie not only to others, but to themselves. Eventually, cheaters pay a price.

* Those who cheat typically fail licensure exams, since they don’t really know the material. Without a professional license, they won’t be able to get employment. Would you want to be treated by a doctor who cheated in order to pass an exam that covered his or her knowledge of your disease? Also, if they falsify a patient’s medical records, can you guess what can happen to them?
* Research scientists who falsify data are typically discredited and their reputations can be permanently ruined.
* Although you may think your professors have no clue when a student is cheating, usually your classmates do and some will inform your professor.
* Cheating becomes habitual. See what happens when employees cheat their employer.
* Students who let others cheat off them are not doing anyone a favor. If you are in a highly competitive field, you may ultimately be aiding your competition.
* Guess what a professor says to a student seeking a letter of recommendation when they know the student cheated or plagiarized.
* Finally, what happens to a person’s self-esteem and to their reputation when they act unethically by cheating or plagiarizing?

Use the following as your guide: *“Each student is required to follow Valencia policy regarding academic honesty. All work submitted by students is expected to be the result of the student’s individual thoughts, research, and self-expression unless the assignment specifically states ‘group project.’* To get the most out of each of your classes, it is best to learn how to study for long term comprehension, not just to memorize facts. Study so you can teach others what you are learning. My motto is, “*if you can’t teach what you are learning to others, you don’t really know the material*.” Academic dishonesty, in the forms of cheating and plagiarism, will not be tolerated and for most of our science professors will result in a student getting a zero on a test or assignment for the first offense and then an F for the course if a student is caught cheating or plagiarizing again; at that point the Dean of Students will also be notified. Don’t throw away your dreams and your reputation by showing a lack of academic integrity. We wish you the best and want you to succeed and be proud of your accomplishments at Valencia.

Dr. Robert Gessner

Valencia College West Campus Dean of Science