

COURSE OBJECTIVES:

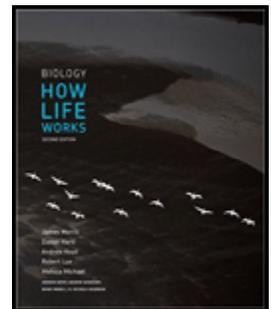
By the end of the semester you should be able to:

- Explore life from the microscopic to the global scale.
- Explain how living organisms are related to each other including the similarities and differences between prokaryotes, animals, plants and other eukaryotes.
- Describe how energy enters living systems and how it used by different organisms and organelles to keep life going.
- Compare and contrast the formation of new cells with the formation of gametic cells
- Correlate the structure of organic molecules with their basic functions
- Outline the relationships between genes, inheritable traits and gene expression patterns
- Relate key biological themes to examples found in the natural world
- Explain how scientists learn more about the world around them, and the changing nature of scientific information.

REQUIRED MATERIALS

Textbook: How Life Works by Morris, Hartl, Knoll, Lue and Michael, 2nd edition.

- This textbook will be used for BIOL 151 and BIOL 152. It is available at the VCU bookstore in multiple formats.



Top Hat

- We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.
- You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.
- An email invitation will be sent to you by email, but if don't receive this email, you can register by simply visiting our course website: **Unique Course URL: [removed]**
Note: our **Course Join Code is [removed]**
- Top Hat will require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing.
- Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please

contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

COURSE POLICIES

Attendance:

Attendance is expected at all classes. Attendance to all tests and quizzes is mandatory and required. However, if you are not able to attend class, you are still responsible for the material, reading and homework assigned and due that day. Also note that tardiness is not only rude and disruptive to the class, but it may result in your missing a quiz or a class work. You must attend the entire class to get credit for taking the quiz. Quizzes will be offered at different times during the class period. If you miss class, it is your responsibility to obtain notes and material covered in class from another student.

Class Participation:

This is an important component of this course. It will provide both of us with feedback on how well you are understanding the material that is being covered and allow one or both of us to make adjustments prior to any exams. You must come to class prepared, failure to complete homework before coming to class will result in a zero for any in class assignments done that day.

Tests:

- Tests dates are subject to change and will be announced in class and/or on Blackboard. Students are responsible for keeping track of any changes.
- Tests will include multiple choice, matching, true/false, ordering and short answer questions. With the exception of the short answer questions, multiple choice questions will be taken online via Blackboard during the time period, on the dates indicated in the syllabus. No extensions will be provided.
- If for some reason you find that you cannot possibly be in class on the designated exam dates you must notify me within 24hrs with a legitimate reason (severe illness, death in family, accident) and with documentation of reason (Dr.'s note, obituary, police report). Travel plans, including vacations are not legitimate excuses.
- There are not makeup exams, the 5th exam (The Final, which will be cumulative) will be counted as two test.

Online Work:

- We will have several online assignments that must be completed.
- It is your responsibility to check the course blackboard site for any assignments and to make sure that assignments are **completed before due dates**.
- No make-ups for missed work will be given nor will late assignments be accepted.

- Individuals that do not complete required online assignments prior to class time will not receive credit for any class activities done that class period even if they participate in the activity.

Student VCU E-mail Address:

If you do not have a VCU email account, please go to the Cabell Library, Room B-9, and activate an account as soon as possible. I will respond only to VCU email addresses. Please do not use AOL, hotmail, etc. **Do not use an attachment for your message.** Write your message in the body of the email; this provides a convenient email “history” for the lab professor and you if, for example, you are trying to confirm an appointment time.

Please note E-mail Etiquette: Always identify yourself by full name and lab section #. Basic consideration and politeness is expected.

Blackboard – <http://blackboard.vcu.edu>

Blackboard is used to post announcements, the syllabus, topics schedule, exam dates, grades, resources, etc.

Electronic Devices

Students may use laptops and **audio** recording devices during lecture for class purposes only. Students caught using laptops, phones, etc., for any unauthorized activity (texting, checking email or facebook, surfing the web, etc.) will be asked to leave the classroom. Cell phones, pagers, and tablets must be on silence during lecture and lab class and may not be on your person during exams (see *Examination Policies, and Honor Code Policy*).

Inclement Weather:

Lecture classes will meet unless officially canceled by VCU officials. Call the VCU “inclement weather hotline”, 828-OPEN (828-6736), or go to www.vcu.edu/alert/.

CLASS EXPECTATIONS

- You will be expected to come to class regularly, to be responsible for completing assignments on time, and interact with your fellow classmates and professor in a mature and respectful manner.
- You are expected to come prepared and therefore must complete assigned work prior to class time. **Failure to be prepared will impact your grade in course.** Individuals that fail to complete required assignments before class may receive a zero for any class work done during that class period.

SUGGESTIONS ON HOW TO SUCCEED IN BIOL 151

- Come to class! Do not be late or leave early.
- Be prepared. Review the material ahead of time
- Take notes. Your notes are better than notes of classmates. Rewrite notes within 24 hours of the lecture. Print and label figures from the textbook with all direct and indirectly related material!
- Eliminate any confusion by talking to the instructor.
- Review and study material *every day*. Do not wait until the last minute to prepare for tests.
- Form study groups with classmates.
- Focus while in class. Eliminate distractions (like text messaging!!).
- Attend SI sessions.
- Ask for help early in the semester before it is too late to see the results of changing study habits.

GRADING

During this semester your grades will be based on the following:

In Class and Online Work: 20%

- In class questions
- Activities/ Case studies
- Quizzes (on line)

Tests 80%

- Five in class tests

ONLY 4 of the 5 tests count for the final grade in the class.

You have to take **the first 4 tests, they are NOT optional.** You can only miss a test (1-4) if you have a valid excuse, please see above under tests policies.

The Final test is optional.

If you do not have a valid excuse for missing tests 1-4 you **CANNOT** take the final test, and you will receive a "0" as a grade for one of your four tests.

If you decide you like your grade after test 4, you do not have to take the final. Note that test 4 is the last day of class, and the multiple choice is not due until the following Monday, which is the day of the final examination.

Grading Scale:

90%-100% ---A
 80-89.99% ---B
 70-79.99% ---C
 60-69.99% ---D
 < 60% ---F

- THERE IS A FINAL FOR THIS COURSE BUT ALL EXAMS ARE COMPREHENSIVE IN NATURE, this means that each test will build upon the material in preceding test.
- All assignments are weighted equally (they are all worth the same amount).

IMPORTANT DATES

TEST DATES	COURSE DATES
	Aug. 25th -31th: Add/Drop and late registration
Test 1: Sept 16 Multiple Choice due Sept 19 at 11:00 am	*Sept 5th : Labor Day No Classes Sept 9th: Deadline for students to provide advance written notification to instructors of intent to observe religious holidays
Test 2: Oct 7 Multiple Choice due Oct 10 at 11:00 am	*Oct 20th-21st: Fall reading days, no classes
Test 3: Nov 11 Multiple Choice due Nov 14 at 11:00 am	Nov 4th : Last day to withdraw from a course *Nov 24th-27th: No class, Thanksgiving
Test 4: Dec 9 Multiple Choice due Dec 9 at 11:00 am (Note a difference here) Final: Monday Dec 12 8-10:50 am	Dec 10th: Last Day of classes

COURSE TOPICS BY WEEK

	Dates	Topic	Textbook Chapters/Pages
1	Aug 26	Introduction	Chapter 1
2	Aug 29- Sept 2	Commonalities of Living Organisms	Chapter 2: 2.1, 2.2, 2.3, 2.4 & 2.5
3*	Sept 7-9	Building a Cell: Molecules & Membranes	Chapter 4: 4.1 Chapter 5: 5.1 & 5.2
4^^	Sept 12-16	Building a Cell: Inside a Cell	Chapter 5: 5.3-5.5 Chapter 10: 10.2 , 10.4 & 10.5
5	Sept 19-23	Energy for Life: Chemical Reactions and Enzymes	Chapter 6
6	Sept 26-30	Pulling Energy from the Sun: basics of photosynthesis	Chapter 8
7^^	Oct 3-7	Getting Energy from Food: basics of cellular respiration	Chapter 7
8	Oct 10- 14	From one cell to two: fundamentals of the cell cycle	Chapter 11:11.1-11.2, 11.4-11.5
9*	Oct 17- 19	Copying DNA: DNA structure and replication	Chapter 3 Chapter 12: 12.1 & 12.2
10	Oct 24-28	Meiosis and Sexual Reproduction	Chapter 11: 11.3 Online materials
11	Oct 31- Nov 4	Introduction to Mendelian Genetics	Chapter 16
12^^	Nov 7-11	Beyond Mendel, Sex Linked Chromosomes	Chapter 17:17.1, 17.2 and 17.4
13	Nov 14-18	From Gene to Protein	Chapter 4; 4.2 & 4.3 Chapter 19: 19.1
14*	Nov 21-23	From Gene to Protein	Chapter 19: 19.1
15	Nov 28-Dec 2	Controlling Gene Expression No class Friday. Thanksgiving holiday	Chapter 19: 19.2 & 19.3
16^^	Dec 5-9	Mutations and genetic disorders	Chapter 14

- (*) Please refer to important days section in the syllabus
- (^^) Please refer to Important days in the syllabus section for tests days
- This schedule is tentative. Textbook chapters and topic dates may be moved. All changes will be posted on Bb.

VCU Policies

This content was last updated in August 2016.

<http://go.vcu.edu/syllabus>

Topics include:

1. Campus emergency information
2. Class registration required for attendance
3. Honor System: upholding academic integrity
4. Important dates
5. Managing stress
6. Mandatory responsibility of faculty members to report incidents of sexual misconduct
7. Military short-term training or deployment
8. Student conduct in the classroom
9. Student email policy
10. Student financial responsibility
11. Students representing the university - excused absences
12. Students with disabilities
13. Withdrawal from classes

Campus emergency information

What to know and do to be prepared for emergencies at VCU:

Sign up to receive [VCU text messaging alerts](#). Keep your information up-to-date. Within the classroom, the professor will keep his or her phone on to receive any emergency transmissions.

Know the safe evacuation route from each of your classrooms. Emergency evacuation routes are posted in on-campus classrooms.

Listen for and follow instructions from VCU or other designated authorities. Within the classroom, follow your professor's instructions.

Know where to go for [additional emergency information](#).

Know the emergency phone number for the VCU Police (828-1234).

Report suspicious activities and objects.

Keep your permanent address and emergency contact information current in eServices.

Class registration required for attendance

Students may attend only those classes for which they have registered. Faculty may not add students to class rosters or Blackboard. Therefore, if students are attending a class for which they have not registered, they must stop attending.

Honor System: upholding academic integrity

The VCU Honor System policy describes the responsibilities of students, faculty and administration in upholding academic integrity, while at the same time respecting the rights of individuals to the due process offered by administrative hearings and appeals. According to this policy, "Members of the academic community are required to conduct themselves in accordance with the highest standards of academic honesty, ethics and integrity at all times." In addition, "To support a commitment to the Honor System, all members of the VCU community are required to:

- Adhere to the Honor System policy and its procedures;
- Report any suspicion or knowledge of possible violations of the Honor System;
- Answer truthfully when called upon to do so regarding Honor System matters;
- Maintain appropriate confidentiality regarding related to Honor System matters."

More information can be found at in the [VCU policy library](#).

Important dates

You can view important dates for the semester in the [academic calendar](#).

Managing stress

Students may experience situations or challenges that can interfere with learning and interpersonal functioning including stress, anxiety, depression, alcohol and/or other drug use, concern for a friend or family member, loss, sleep difficulties, feeling hopeless or relationship problems. There are numerous campus resources available to students including University Counseling Services (804-828-6200 MPC Campus, 804-828-3964 MCV Campus), University Student Health Services (MPC 804 828-8828, MCV Campus 804 828-9220) and the Wellness Resource Center (804-828-9355). 24 hour emergency mental health support is available by calling 828-1234 and asking to speak to the on-call therapist or utilizing the National Suicide Prevention Lifeline (1-800-784-2433).

Mandatory responsibility of faculty members to report incidents of sexual misconduct

It is important for students to know that all faculty members are mandated reporters of any incidents of sexual misconduct/violence (e.g., sexual assault, sexual exploitation and partner or relationship violence). This means that faculty cannot keep information about sexual misconduct/violence confidential if you share that information with them and they must report this information immediately to the university's Title IX Coordinator. In addition, department chairs, deans, and other unit administrators are required to report incidents of sex or gender-based discrimination to the university's Title IX Coordinator. Once a report is made, you will receive important information on your reporting options, on campus and off campus resources and remedial measures such as no-contact directives, residence

modifications, and academic modifications. If you would prefer to speak with someone confidentially for support and to discuss your options for reporting, contact: VCU's Wellness Resource Center 804.828.9355 | myoptions@vcu.edu | thewell.vcu.edu

Greater Richmond Regional Hotline (Community program) 804.612.6126 | 24-hour hotline

VCU's Counseling Services 804-828-6200

For more information on how to help, please [click here](#). The Policy on Sexual Misconduct/Violence and Sex/Gender Discrimination, can be found in the [VCU policy library](#). For more information about the University's Title IX process, please visit equity.vcu.edu.

Military short-term training or deployment

If military students receive orders for short-term training or for deployment/mobilization, they should inform and present their orders to Military Student Services and to their professor(s). For further information on policies and procedures contact Military Student Services at 828-5993 or access the corresponding policies.

Student conduct in the classroom

According to the [Faculty Guide to Student Conduct in Instructional Settings](#), "The university is a community of learners. Students, as well as faculty, have a responsibility for creating and maintaining an environment that supports effective instruction. In order for faculty members (including graduate teaching assistants) to provide and students to receive effective instruction in classrooms, laboratories, studios, online courses, and other learning areas, the university expects students to conduct themselves in an orderly and cooperative manner." Among other things, cell phones should be turned off while in the classroom. The Student Code of Conduct also prohibits the possession of or carrying of any weapon. For more information see <http://register.dls.virginia.gov/details.aspx?id=3436>.

Student email policy

Email is considered an official method for communication at VCU because it delivers information in a convenient, timely, cost-effective, and environmentally aware manner. Students are expected to check their official VCU email on a frequent and consistent basis in order to remain informed of university-related communications. The university recommends checking email daily. Students are responsible for the consequences of not reading, in a timely fashion, university-related communications sent to their official VCU student email account. This policy ensures that all students have access to this important form of communication. It ensures students can be reached through a standardized channel by faculty and other staff of the university as needed. Mail sent to the VCU email address may include notification of university-related actions, including disciplinary action. Please read the policy in its entirety at the [VCU Policy Library](#).

Student financial responsibility

Students assume the responsibility of full payment of tuition and fees generated from their registration and all charges for housing and dining services, and other applicable miscellaneous charges. Students are ultimately responsible for any unpaid balance on their account as a result of the University Financial Aid Office or their third party sponsor canceling or reducing their award(s).

Students representing the university – excused absences

Students who represent the university (athletes and others) do not choose their schedules. Student athletes are required to attend games and/or meets. All student athletes should provide their schedules to their instructors at the beginning of the semester. The Intercollegiate Athletic Council strongly encourages faculty to treat missed classes or exams (because of a scheduling conflict) as excused absences and urges faculty to work with the students to make up the work or exam.

Students with disabilities

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, as amended, require that VCU provide "academic adjustments" or "reasonable accommodations" to any student who has a physical or mental impairment that substantially limits a major life activity. To receive accommodations, students must register with the Disability Support Services Office on the Monroe Park Campus (828-2253) or the Division for Academic Success on the MCV campus (828-9782). Please also visit the [Disability Support Services website](#) and/or the [Division for Academic Success website](#) for additional information.

Once students have completed the DSS registration process, they should schedule a meeting with their instructor (s) and provide their instructor (s) with an official DSS accommodation letter. Accommodation letters will outline the required classroom accommodations. Additionally, if coursework requires the student to work in a lab environment, the student should advise the instructor or a department chairperson of any concerns that the student may have regarding safety issues related to a disability. Students should follow this procedure for all courses in the academic semester.

Withdrawal from classes

Before withdrawing from classes, students should consult their instructor as well as other appropriate university offices. Withdrawing from classes may negatively impact a student's financial aid award and his or her semester charges. To discuss financial aid and the student bill, visit the [Student Services Center](#) at 1015 Floyd Avenue (Harris Hall) and/or contact your financial aid counselor regarding the impact on your financial aid.