

BIOL 152 Introduction to Biological Sciences II Spring 2017 Syllabus

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Office Hours: [removed]
Classroom: LSB (Trani) 151
Class time: TR 9:30-10:45 AM

Course Description

Semester course; 3 lecture hours. 3 credits. Prerequisites: BIOL 151 and CHEM 101. Focuses on evolutionary principles, the role of natural selection in the evolution of life forms, taxonomy and phylogenies, and biological diversity in the context of form and function of organisms. Designed for biology majors.

Course Overview

This course will focus on biological diversity from an evolutionary perspective. Along with basic principles and mechanisms of evolution, the role of natural selection in the evolution of life forms, taxonomy and phylogenies, and the introduction/learning of specific vocabulary, details, and concepts, emphasis will be placed on the development of critical thinking skills including the application of the material to novel scenarios and the analysis of novel information. This course is intended to help cultivate a passion for the biological sciences and facilitate synthesis of existing student knowledge with new topics for a more comprehensive understanding of biological concepts, thereby preparing students for more advanced courses in biology.

Learning Objectives

By the end of this course students should be able to:

- 1) Explain the basic principles and mechanisms of evolution
- 2) Distinguish evolutionary relationships between organisms on phylogenetic trees
- 3) Assess the connections between organisms, adaptations and evolutionary trends
- 4) Explain the evolution and diversity of plants and describe some key systems in plants
- 5) Explain the evolution and diversity of animals and describe some key systems in animals
- 6) Analyze new information related to the subject matter and apply course materials to novel situations
- 7) Given the content of and rigor of the course, the student will evaluate current study and time management skills and devise new methods for learning the material.

Required Materials

Textbook

Biology: How Life Works 2nd edition by Morris, J et al.

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, discussions, group work, etc. using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit tinyurl.com/TopHatStudentGuide for the Student Quick Start Guide 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 also be sent to your school email account (if you don't receive this email, you can register by visiting our course website [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.

Lecture Exams

There will be four lecture exams and a final. Each exam can and shall build from previous information, to include BIOL 151, and so will likely have questions about previous material. Ergo, do not forget *anything*. Exams will consist of multiple choice, fill-in-the-blank questions, short answer, drawings, and essays.

Lecture Exam policies:

****Failure to comply with any of these policies may result in the forfeit of the exam or the involvement of the honor system****

- Memorize your V# prior to your first exam. – Not knowing your V# and/or improperly filling out your number may result in the loss of points on the exam.
- Bring a photo ID for each exam.
- No cell phones during the exam... for any reason.
- No hats
- No ear devices or any other electronic devices
- No clipboards
- You may leave the class during an exam with the permission by the instructor
- Do not look at any exam but your own
- Do not speak to your classmates once the exam has commenced.
- Turn in all exam materials to the Instructor, to include extra exams.
- No duplication of exams in any way.

Class Attendance/Participation:

Attendance will be taken daily via Top Hat following add/drop. We will often be doing work during class in the form of top hat questions, group work, or individual work. This work will allow both of us to assess your mastery of the material, and make adjustments accordingly.**

Online Work:

Each week you may have online assignments that must be completed primarily through Top Hat. It is your responsibility to make sure that assignments are completed before due dates/times. Loss of internet access, computer issues, browser issues or other technology related problems may not be considered legitimate excuses for failure to complete assignments before due dates.**

Attendance & Missed Work Policy:

Missed Work - It is the student's responsibility to get notes from a classmate due to an absence. It is the student's responsibility to find out from a classmate what was missed, so *be kind and courteous to your colleagues!*

Make-Ups - Lecture exams may be made up at the instructor's discretion, but will require an acceptable reason for missing the exam.

Final Grade Calculation

Final grades will be calculated in one of two ways. 1) Final grades will be based on your exam grades alone, meaning that each of your exams is worth 100 points and your final exam is worth 200 points for a total of 600 points. ****This method will not consider grades associated with class attendance/participation and any online assignments.** 2) Final grades will be based on both exam grades and your other class grades. Exams grades will count for 70% of your overall final grade with point values as listed in option 1. The other 30% will be calculated from your classroom/participation and online work grades. At the end of the semester, each method will be calculated and your grade will be the higher of the two calculations.

Classroom Conduct & Computer Use Policy:

Any behavior which is distracting or disruptive to fellow students or to me will not be tolerated – you will be asked to leave. If you bring a computer to lecture it must be used solely for that class. If you are caught doing something other than class work, you will lose your privilege to bring a computer to class for the rest of the semester.

Grading Scale & Extra Credit:

90.00-100% = A

80-89.99% = B

70.00-79.99% = C

60.00-69.99% = D

Below 60.00% = F

No extra credit**Statements for Syllabi and Blackboard Pages**

This content was last updated in August 2016. When linking to the online syllabus statements, please use <http://go.vcu.edu/syllabus>

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 misconductIt 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.

DATE	DAY	TOPIC	TEXT
17-Jan	T	Introduction to Evolution	Section 1.4, Openstax 18.1
19-Jan	R		
24-Jan	T	Evolution of Populations	Chapter 21, Population Genetics PowerPoint (BB)
26-Jan	R		
31-Jan	T	Origin of Species (End of Exam 1 Material)	Chapter 22
2-Feb	R		
7-Feb	T	Evolution of Early Life and Intro to Phylogenies Exam 1	Sections 23.1- 23.2, Campbell Chapter, and BB article
9-Feb	R		
14-Feb	T	Bacteria and Archaea; Form, function and diversity	Chapter 26
16-Feb	R		
21-Feb	T	Eukarya / Evolution of Multicellularity (End of Exam 2 Material)	Chapter 27 & 28
23-Feb	R		
28-Feb	T	Evolution of Plants from Algae Exam 2	Chapter 33
2-Mar	R		
7-Mar	T	Spring Break	
9-Mar	R		
14-Mar	T	Evolution of Plants / Seed Plants	Chapter 33; Sections 31.1, 29.3, 29.4
16-Mar	R		
21-Mar	T	Fungal Evolution and Diversity	Sections 34.1-34.3 (up to pg 34-13)
23-Mar	R		
24-Mar	F	Last Day to Withdraw	
28-Mar	T	Introduction to Animal Diversity Exam 3	Sections 44.1, Review 27.1, Section 44.2, Openstax 27.1
30-Mar	R		
4-Apr	T	Bilateria / Nervous System Muscle System / Skeletal System	Sections 44.3, 35.1, 37.1, 37.3
6-Apr	R		
11-Apr	T	Vertebrate Evolution and Selected Systems	Sections 44.4, 37.4, 39.1, 39.2, and 39.4
13-Apr	R		
18-Apr	T	Population Ecology Exam 4	Chapter 46
20-Apr	R		
25-Apr	T	Species Interactions, Communities, and Ecosystems	Chapter 47
27-Apr	R		
2-May	T		

11-May	R	CUMULATIVE FINAL EXAM	8AM-11AM
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