# BIO 112 Syllabus

## **Spring Semester, 2022** Dr. Kate Brilakis email: [brilakisk@durhamtech.edu](mailto:brilakisk@durhamtech.edu) Text: 703.498.9997 Office Hours: Virtual M-F; by appointment Course Details Lecture – Virtual via Sakai “Meetings” class room Attendance not required but appreciated All lecture classes will be recorded and posted Tuesdays 7:15-8:15pm Thursdays 10:15- 11:15am Lab – Orange County Campus Room 227 Mon 9:00am-11:40am Attendance required

### General Information General Biology 4 credit hours Prerequisites: DMA 060 (MAT 070), ENG 090 & RED 090 (or DRE 098). The official course outline is available on the DTCC website at <http://www.durhamtech.edu/academics/coursedescriptions/courseoutlines/BIO111.pdf> Biology 112 is the second half of DTCC’s introductory Biology series. In this course, we will explore the structural and evolutionary relationships among organisms, biodiversity, plant and animal systems, ecology, and environmental science. When you complete this course, you should have a good understanding of life at the organismal and ecological levels. During this semester, you will have the opportunity to reinforce our lecture topics during face-to-face laboratory classes where you will get a real feel for the mechanics of science. DTCC offers Sakai as our learning management system. Many of you might be familiar with blackboard or another LMS. If Sakai is new to you, please visit the Durham Tech ‘Sakai Help for Students’ website. Please also regularly check your DTCC email for class information and announcements. In addition to Sakai, we will be using McGraw Hill’s online resources called “Connect” for quizzes and pre-class assignments. You’ve received an email with instructions on how to register for this online learning resource that accompanies our text. See below for more info on Connect. I built and maintain a course website that we will be using this semester. This website offers loads of pictures, videos, tutorials and more. You can access this website at: <http://www.katebrilakis.com/home.html> Please check this site often for updates!

**Course Materials**We’ll be using a DTCC selected text by Sylvia Mader and Michael Windelspecht called simply *Biology.* Along with this text, which you may purchase as an etext or a hard copy, we’ll be using an accompanying online resource via Connect. You will complete pre-class assignments and quizzes on Connect so it is important that you register for Connect so you have access to these assignments. Please select one of the two following options:

**Option 1**: Online: Mader, Sylvia; **Biology**; 14th Edition Connect Access Code; McGraw Hill Publishers comes with an eBOOK. **If purchasing online, click on “CONNECT**” to purchase an eBook with access code.

<https://connect.mheducation.com/class/k-brilakis-biology-112-spring-2022>

**OR**

**Option 2** at the Durham Tech Bookstore: Physical Text Book **and** access code:Mader, Sylvia; **Biology**; 14th Edition; McGraw Hill Publishers; optional but recommended (the online access code and physical textbook will be bundled at the Durham Tech bookstore).

**Lab:**I will provide you with weekly lab directions in lieu of purchasing a lab manual. Please make sure you print the lab protocol and bring it with you each week. You are responsible for purchasing a lab atlas. Here is the info for the atlas:

Van De Graaff, Kent M., A Photographic Atlas for the Biology Laboratory, 8th ed

### College Policies

Durham Tech has established policies that support student learning and communicate high expectations for students. Please review the policies in the alphabetized list below, so you can successfully meet the college’s expectations.

#### Academic Honesty

Durham Technical Community College establishes and follows a process for defining and addressing academic dishonesty when it occurs either inside or outside the classroom.

Academic dishonesty is the participation or collaboration in specific prohibited forms of conduct. Participation or collaboration may be active (such as submitting a term paper that includes plagiarized work) or passive (such as receiving a copy of a test before class). Academic dishonesty includes, but is not limited to, the following examples:

1. Unauthorized copying, collaboration, or use of notes, books, or other materials on examinations or other academic exercises including:
   1. Sharing information about an exam with a student who has not taken that exam;
   2. Obtaining information about the contents of a test the student has not taken;
   3. Unauthorized use of PDAs, programmable calculators, or other electronic storage devices;
   4. Text messaging or other forms of communication during an exam;
   5. Unauthorized or inappropriate file sharing and use of Internet and computer resources as specified in the Appropriate Use Policy; and
   6. Unauthorized use of translation software and assistance from native speakers or advanced-level students in foreign language classes.
2. Plagiarism, which is defined as the representation of another person’s work, words, thoughts, or ideas, including material from the Internet, as one’s own. This includes, but is not limited to, copying material and using ideas from an article, book, unpublished paper, or the Internet without proper documentation of references.
3. Unauthorized use and/or possession of any academic material, such as tests, research papers, assignments, or similar materials.

The Violation Procedure for the Academic Honesty Policy is available in the [Catalog and Student Handbook](https://www.durhamtech.edu/catalog/index.htm).  Please note that as the Catalog and Student Handbook is updated, campus policies may change.

#### Attendance and Withdrawal Policy

Success in school is linked to regular attendance. In the event of an absence, it is the student’s responsibility to make up all missed work. Failure to make up missed work will adversely affect a student’s Bio 111 grade.

##### Student-initiated Withdrawals

Students may officially drop one or all courses prior to the 75 percent tuition refund deadline of each semester (“drop period”) without the enrollment being shown on the transcript. After the close of the drop period and prior to the 60 percent date in the semester, students may officially withdraw from one or all courses with a grade of W. To initiate an official withdrawal, complete an electronic withdrawal form by logging in to the [eforms system](https://eforms.durhamtech.edu/index.aspx). Use your WebAdvisor/Self-Service username and password to log in to the system. It is best to use Chrome, Firefox, or Safari to access the forms.

Faculty-initiated Withdrawals:  
Information obtained from the college catalog (refer to the [Student Withdrawals, Faculty Withdrawals, and Class Absences](https://www.durhamtech.edu/catalog/studentrights.htm) sections)  
  
Consecutive Absences

Any student with consecutive absences equaling or exceeding 15 percent of the instructional hours for the course prior to the official withdrawal date for the course will be withdrawn from the class by the instructor with a grade of W.

If a student misses 15 percent of the class meetings consecutively such that the student’s last absence occurs after the first 60 percent of the instructional hours for that course, the instructor will assign the grade of F2. The last day of attendance is required for Web Grading when the F2 grade is assigned due to excessive absence. Excused absences are not counted when calculating the 15 percent absence threshold.

###### Intermittent Absences

If a student misses 15 percent of the class meetings intermittently within the first 60 percent of the instructional hours for that course, the instructor may withdraw the student from the course assigning the grade of W. If a student misses 15 percent of the class meetings intermittently such that the student’s last absence occurs after the first 60 percent of the instructional hours for that course, the instructor may assign the student the grade of F2. Students enrolled in Developmental Education courses in this situation may be withdrawn with a grade of W. Excused absences are not counted when calculating the 15 percent absence threshold.

#### Disabilities Statement

Durham Technical Community College abides by Section 504 of the Rehabilitation Act of 1973, which stipulates that no student shall be denied the benefits of an education "solely by reason of a handicap." Disabilities covered by law include, but are not limited to, learning disabilities, psychological disabilities, health impairments, hearing, and sight or mobility impairments. If you have a disability that may have some impact on your work in this class and for which you may require accommodations, please email Disability Services at [disabilityservices@durhamtech.edu](mailto:disabilityservices@durhamtech.edu), call 919-536-7207, or visit the Phail Wynn, Jr. Student Services Center, room 10-209 for additional information regarding requirements for arranging accommodations.  
  
  
  
**Inclement Weather**

In the event of hazardous weather, including such events as hurricanes, heavy snow, or ice accumulation, Durham Technical Community College will communicate a decision to remain open or to close in these ways:

* [College's website](https://www.durhamtech.edu/)
* Durham Tech [Twitter](http://twitter.com/durhamtech)
* Durham Tech [Facebook](https://www.facebook.com/durhamtech)
* Main phone number of 919-536-7200
* [Sakai](https://sakai.durhamtech.edu/)
* Notifying local media outlets.

If classes on the main campus are cancelled, classes will also be canceled at all other college locations. From time to time, however, the college may cancel operations at a remote location and still operate on the main campus.

To the extent possible, we will make a decision to remain open or close by 9 p.m. the night before the anticipated weather event. We will also make a decision regarding evening operations by 3 p.m. the day of the weather event. Please realize, however, that inclement weather can occur at any time; thus timetables regarding a decision to remain open or to close are flexible.

#### Student Code of Conduct

All Durham Tech students are expected to conduct themselves as responsible adults. Behavior that persistently or grossly disrupts the educational process or functioning of the college, whether it occurs on campus or at any college-sponsored activity, may result in disciplinary action. Examples of specific violations of and the grievance procedure for the [Student Code of Conduct](https://www.durhamtech.edu/policiesprocedures/codeconduct.htm).

#### Title IX Sexual Misconduct Policy

Durham Technical Community College is committed to providing a campus environment that is free of sexual misconduct, including sexual harassment, sexual exploitation, sexual assault, stalking, domestic violence, and dating violence. If you have encountered any form of sexual misconduct associated at Durham Tech, you are encouraged to report this to the College. If you speak with a faculty member about an incident of sexual misconduct, including writing assignments and classroom discussions, the faculty member must share that information with the Vice President of Student Engagement, Development, and Support ([Christine Kelly-Kleese](mailto:kleesec@durhamtech.edu), Phail Wynn, Jr. Student Services Center, room 10-307). You will be contacted to discuss support services and investigation options/requirements. If you wish to file a confidential complaint with the Title IX Coordinator, please complete the [Sexual Misconduct Complaint form](https://www.durhamtech.edu/hr/SexualMisconductComplaintForm.pdf).

#### Use of ConnectMail

All Durham Technical Community College students have been issued a ConnectMail email account. This account should be used for all email communications between the student and the college, including all communications with instructors**.** This account must be used as your Sakai email account. Visit the [Get Connected](https://www.durhamtech.edu/connect/index.htm) page for more information on setting up and using your ConnectMail account. Use your WebAdvisor/Self-Service username and password to access your ConnectMail.

#### Federal Education Rights and Privacy Act (FERPA)

This is a federal that applies to Durham Tech and protects the confidentiality of a student’s records. These records will only be shared under specific circumstances. Durham Tech will disclose records, without consent, to the following parties or under the following conditions:

* Durham Tech officials with legitimate educational interest;
* Other colleges to which a student is transferring;
* Specified officials for audit or evaluation purposes;
* Appropriate parties in connection with financial aid to a student;
* Organizations conducting certain studies for or on behalf of the college;
* Accrediting organizations;
* To comply with a judicial order or lawfully issued subpoena;
* Appropriate officials in cases of health and safety emergencies; or
* State and local authorities, within a juvenile justice system, pursuant to specific State law.

**Grading Policy**

**Lecture**: You will complete 2 lecture assessments, weekly online quizzes/activities on Connect, and a semester project. Your overall grade in the lecture portion of this class is worth 75% (750 points/1000 points) of your final grade in the course.

2 Lecture Assessments 350 pts 35% of 111 grade  
 (175 points each)

Connect Quizzes/Activities 300 pts 30% of 111 grade  
 Semester Project 100 pts 10% of 111 grade  
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Total Lecture Points 750 pts 75% of 111 grade

**Lab**: The lab portion of this class is worth 25% (250 points/1000points) of your final grade in the course. The second part of this syllabus will explain the lab portion of our Biology 112 course.

**Late or Missed Work**

If you must miss an assessment due to a personal emergency, you must contact me prior to the assessment date/time. Please offer **official** documentation explaining your absence such as a police report/ER papers. If you are ill, you will need to provide a negative Covid test to DTCC’s Covid Response Team before returning to class. Make-up exams cannot be given after the graded exams have been returned to the class.

Letter grades will be assigned using a ten point grading scale:

90 – 100 = A 80 – 89 = B 70 – 79 = C 60 – 69 = D 0 – 59 = F

### College Resources

Durham Tech faculty and staff want students to succeed. The college has several high-quality resources that are available for free for enrolled students. Some of the most useful college resources are listed below.

#### Center for Academic Excellence (CAE)

Students who need tutorial assistance may be referred to the Center for Academic Excellence (CAE), in the Phail Wynn, Jr. Student Services Center, room 10-308. Professional and peer tutors are available to assist students with a variety of subjects, including writing, math, Spanish, and computers. This term’s schedule of free tutorial services is available in the CAE, on the CAE webpage, and on bulletin boards around campus. Free online tutoring is also available 24 hours a day in these same subjects and in more specialized subjects via [Upswing](https://durhamtech.upswing.io/). For more information, call the CAE at 919-536-7232, ext. 2404, or consult the [CAE webpage](http://www.durhamtech.edu/cae/).

#### Computer Labs

There are several computer labs on Durham Tech's campus that students may use for educational purposes. Lab Monitors are on duty in several labs to assist with basic computer questions. All labs offer Internet access. Labs will be closed on Durham Tech holidays. View the [Academic Calendar](https://www.durhamtech.edu/academics/calendar.htm) for a listing of important campus dates. To see the locations, policies, and hours for Durham Tech’s labs, visit [computer lab schedule webpage](https://www.durhamtech.edu/current/computerlabschedule.htm).

#### Library

All three Durham Tech campuses feature a library with a variety of print and electronic resources for students. Please review the [library’s webpage](https://www.durhamtech.edu/dtcclibrary/index.htm) for a complete list of library services.

#### Sakai

Sakai is a system for accessing course materials online. Depending on the course, your instructor will use Sakai to provide course info, handouts, assignments, tests, or online discussions. You should check Sakai weekly for updates. Use your WebAdvisor/Self-Service username and password to log in to Sakai at <https://sakai.durhamtech.edu>

**BIOLOGY 112 Lecture**

The Lecture portion of our hybrid course constitutes the online component. We will meet virtually twice a week to explore the topics listed below. You are not required to attend the virtual lecture classes although attendance, if possible, is highly recommended. **Our virtual classes will meet Tuesdays and Thursdays for about an hour.** We will meet via the “meetings” platform available on our Sakai page. Please review the instructions accessed via the link below before our first class on Tuesday, January 11th at 7:15pm. It might be a good idea to enter the meeting early just in case you need extra time to get yourself situated.   
<https://wiki.durhamtech.edu/wiki/images/7/74/Meetingsstudentinstructions.pdf>

All classes will also be recorded and the recordings posted. Depending on attendance, we may decide to adjust the time as the semester unfolds we meet to accommodate your schedules.   
 Our lecture course will be divided into 2 sections. Each section will culminate with a written assessment.   
 At the beginning of each class, we’ll have a review of the previous class’s information then explore new topics. We’ll finish each virtual class with a wrap-up exercise designed to get you prepped for our lecture assessments.

**Our lecture calendar is on the next page…**

**Biology 112 Lecture Schedule Spring Semester, 2022  
  
Section 1:**  T 1/11 Introduction to Biology 112 w/ Review Process of Evolution   
 Th 1/13 Viruses I  
 T 1/18 Viruses II  
 Th 1/20 Bacteria  
 T 1/25 Protists  
 Th 1/27 Fungi  
 T 2/1 Plant Evolution   
 Th 2/3 Comparison of Plant Morphology   
 T 2/8 Investigation: The Canary in the Coal Mine   
 Th 2/10 Evolution of Animals I   
 T 2/15 Evolution of Animals II   
 Th 2/17 Humans and Other Primates   
 T 2/22 Homeostasis   
 Th 2/24 Investigation: Stem Cells  
  
 **Lecture Assessment #1 on Section 1 taken at OCC   
 Group A March 21st Group B March 14th   
  
Section 2:** T 3/1 Evolution of Body Systems: Digestion   
 Th 3/3 Evolution of Body Systems: Circulation   
 **T 3/8 Spring Break  
 Th 3/10 Spring Break** T 3/15 Evolution of Body Systems: Immunity  
 Th 3/17 Evolution of Body Systems: Respiration  
 T 3/22 Evolution of Body Systems: Excretion  
 Th 3/24 Evolution of Body Systems: Skeletal/Muscular   
 T 3/29 Evolution of Body Systems: Nervous/Sensory   
 Th 3/31 Evolution of Body Systems: Endocrine  
T 4/5 Evolution of Body Systems: Reproduction  
 Th 4/7 Population Biology  
 T 4/12 Communities, Ecosystems and Biodiversity   
 T 4/19 Climate Science   
 Th 4/21 Investigation: Policies v Data   
 T 4/26 Polar Bears and Staghorn Coral   
 **Lecture Assessment #2 on Section 2 taken during Lab 5  
 Group A on May 2nd Group B on April 25th**  
  
  
 **Biology 112 Laboratory** I am so pleased we get to meet in person for lab! Lab is when we can really explore and get a “feel” for how science works. But, because of Covid distancing restrictions, DTCC has modified how our labs will run this semester. You will be assigned to either Group A or Group B. Your group will meet in our lab classroom on alternating weeks. During the weeks you are not physically meeting in our lab classroom, you’ll complete an online exercise and/or take an assessment in a classroom adjacent to your lab room. It sounds a bit confusing but I promise you that I will make this as easy as possible for you to understand and follow.   
 Tuesday of each week at the start of our virtual class, I’ll offer an introduction to the next lab exercises for both the in person and virtual labs. These previews will be recorded for later review. Our lab exercises are not always synchronized to what we are doing in lecture but we try to offer labs that reflect our lecture information.   
 You will use a lab manual *I will provide to you* as a guide for your in-person labs. You do need to purchase the lab atlas identified at the start of this syllabus. Each week, I will post on my webpage the following week’s in- person lab exercises. Please print out the exercise (or bring a tablet/no phones) and bring the copy with you to lab. Your virtual/alternate labs will also be supported by a guide I will provide you via our website so you will have plenty of resources to explore as you complete your lab exercises. You will not be asked to just “do” a lab without being offered an introduction as to what that lab is about and how to complete it.   
 There will be two assessments in lab this semester. The lab assessment will have both an in-person part completed in lab and a virtual part completed online.   
 We will work in small groups to give each student a chance to get some hands-on experience. Please actively participate so you get the most out of lab.  
 Your Bio 112 lab accounts for 25% (250 points/1000 points) of your Bio 112 grade. Each activity on lab will be worth points. Their point values are:  
 Two lab assessments (50 points each) 100 points 10.0% of your 112 grade  
 Virtual lab submissions 130 points 13.o% of your 112 grade  
 Pre-lab submissions for in-person labs 20 points 2.0% of your 112 grade  
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 250 points 25% of your 112 grade  
  
The schedule for our Biology 112 lab this spring (both the in person and virtual components) is on the next page.  
  
  
  
  
  
  
  
  
 **Lab** **Schedule for Biology 112 Spring Semester, 2021**   
 Bio 112 Lab Section meets Mondays 9-11:40am in room 227 Orange County Campus (OCC). The schedule below reflects activities completed both in person & online for groups A and B. You’ve received your group assignment in an email. You must attend lab with your assigned group.   
  
  
**lab # Group/Dates In Person Lab Topic Virtual Lab Topic**  
Lab 1 A 1/10 : B 1/24 Microscopy Independent Project   
 Microscopic Organisms Research/Proposal  
  
 No lab 1/17 Dr. King’s Day  
  
Lab 2 A 1/31 : B 2/7 Protists Carbon Footprint Part I   
   
Lab 3 A 2/14: B 2/21 Invertebrates I Winogradsky Column:  
 Microbial Ecology  
  
Lab 4 A 2/28 : B 3/7 Invertebrates II CSI: Crime Solving Insects  
 Lab Assessment 1Part 1 On-line Lab Assessment 1Part 2  
  
Lab 5 A3/14 : B 3/21 Chordates Winogradsky Column Part II  
 Lecture Assessment #1   
  
  
Lab 6 A 3/28 : B 4/4 Fungi Transgenic Organisms  
 Non-Flowering Plants   
  
Lab 7 A 4/11 : B 4/18 Flowering Plants It’s Spring!   
 Scavenger Hunt  
  
Lab 8 4/25: B 5/2 Present Independent Project Carbon Footprint Part II   
 Lab Assessment 2 Part 1 Lecture Assessment #2   
 On-line Lab Assessment 2 Part 2