Nashville State Community College  
Division of Math and Natural Sciences  
Biology Program  

Master Course Syllabus

This master course syllabus is a general guide and overview of the course. Each instructor will further clarify specific criteria for grading, classroom procedures, attendance, exams and dates, etc. on his/her individual course syllabus.

Course Title: BIOL 1110 - GENERAL BIOLOGY I

- **Credits**: 4 Credits  
- **Class Hours**: 3 Class Hours, 3 Lab Hours  
- **Course Description**: A comprehensive course suitable for biology majors and minors. Fulfills the science requirement for pre-medicine, pre-pharmacy, pre-medical technology, pre-veterinary medicine, and pre-dentistry programs. Topics include the unifying principles found in all organisms, their molecular and cellular basis, the mechanisms of heredity, the interrelationships of organisms, and their evolution. The laboratory component of the course is integrated into the lectures (i.e., there is no separate lab time). Credit for BIOL 1010 and BIOL 1110 may not be used together to satisfy the general education natural science requirement. **Prerequisite**: Level 2 placement in English, Math and Reading.

Instructor Information

- **Name**:  
- **Email**:  
- **Office Phone**:  
- **Office Location**:  
- **Office Hours**:  

Textbook


Course Outcomes

Upon successful completion of this course, students should be able to:

- Describe and apply the scientific method of investigation.
- Explain the basic mechanisms of life (including cell replication) and the molecular and cellular (prokaryotic and eukaryotic) basis for each mechanism.
- Describe atomic structure, chemical bonding and the properties of acids, bases, water, lipid, carbohydrate, protein and nucleic acid.
- Differentiate between prokaryotic and eukaryotic cells at the cellular level.
• Describe energy production (photosynthesis, anaerobic and aerobic respiration) in cellular organisms.
• Explain the molecular basis of genetics and patterns of inheritance and current methods of genetic engineering (for both prokaryotic and eukaryotic cells).
• Explain interactions between organisms and their environment as energy and matter flows through ecosystems and discuss environmental problems and their solutions.
• Describe the evidence for evolution and illustrate the basic tenets of population and species evolution

Topics to Be Covered

Course Topics
• Chemistry
• Water & PH
• Organic Chemistry
• The Cell
• Cell Membrane
• Cellular Respiration
• Metabolism (Enzymes & Energy)
• Photosynthesis
• Cell Signaling
• Cell Cycle, Mitosis • Meiosis
• Genetics (Mendel)
• Genetic Mutations
• DNA Synthesis Transcription & Translation
• Viruses & Bacteria
• Gene Regulation & Cancer
• Biotech: Cloning Vectors & PCR
• Development: Stem Cells, etc.
• Evolution
• Ecology

Lab Topics
• Biological Terminology
• Scientific Method • Chemistry
• Organic Chemistry
• Osmosis and Diffusion
• Enzymes
• Photosynthesis
• Cellular Respiration
• Microscope
• Cell Division
• DNA Synthesis, transcription and translation
• DNA extraction and engineering
• Natural Selection
• Ecological Succession
Course Assessments
Each instructor will provide more detailed information regarding assessments. The following performance assessments will be used to demonstrate students’ understanding, knowledge, and skills:

Exams
- The exams may include, but aren’t limited to, multiple choice, short answer, essay, matching, fill-in-the-blank, true-false or picture/diagram drawing and labeling.
- Exams will count as 55-60% of the final course grade.

Laboratory Activities
- Laboratory activities include, but are not limited to, lab exercises, virtual lab activities, or lab practicals.
- Laboratory activities will count as 20-25% of the final course grade.

Class Activities
- Class activities may include, but aren’t limited to, quizzes, discussion boards, class presentations, group work, homework, model or diagram labeling, lab specimen/model ID or essay questions.
- Class activities will count as 15-20% of the final course grade.

Grading Policy
- Exams: 55-60% of the final course grade
- Laboratory activities: 20-25% of the final course grade
- Class activities: 15-20% of the final course grade

Grading Scale
- A = 90% or higher
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = Below 60%
- FA (see below)
- FN (see below)

Per TBR policy, a student who does not officially drop or withdraw from a course, but receives a failing grade, will receive an “FA” if the last day of attendance was earlier than two-thirds into the part-of-term. That date equates to the last day to withdraw from the course.

An FN is awarded to students who never attended class.

Late Work Policy & Make-up Procedures for Missed Assignments and Work
Each instructor will provide policy.

Attendance Policy
Each instructor will provide policy.
A student is expected to attend all scheduled classes and laboratories. Absences in a course may affect a student’s final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student’s final grade.

**D2L Brightspace/NSOnline and myNSCC email**
It is the student’s responsibility to check D2L and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. D2L contains specific course information and MyNSCC contains information important for other purposes.

**Technology Statement**
Nashville State’s classes are considered to be web-enhanced. Faculty have an expectation that students will use a computer and the Internet to complete assignments, engage in online discussions, and access various course materials through Desire2Learn (D2L) course shells. Computers are available for student use at each campus during campus open hours.

**ADA Compliance Statement**
Nashville State complies with the Americans with Disabilities Act. If you wish to request any special accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721.

**Classroom Misconduct**
Nashville State Community College has a zero tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary sanctions. The Nashville State Student Code of Conduct policy is available at [https://s3.amazonaws.com/nscc.edu/PDFs/dean-students/Student_Code_of_Conduct_Policy.pdf](https://s3.amazonaws.com/nscc.edu/PDFs/dean-students/Student_Code_of_Conduct_Policy.pdf)

Please be aware that children are not allowed in class or unattended on campus.

**Academic Misconduct**
Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and aiding by the Academic Misconduct Policy in the Nashville State Student Code of Conduct that can be found at [https://s3.amazonaws.com/nscc.edu/PDFs/dean-students/Student_Code_of_Conduct_Policy.pdf](https://s3.amazonaws.com/nscc.edu/PDFs/dean-students/Student_Code_of_Conduct_Policy.pdf)

In addition to other possible disciplinary sanctions that may be imposed through regular college procedures as a result of academic dishonesty the instructor has the authority to assign an “F” or a “Zero” for the exercise, paper, or examination or to assign an “F” for the course. Students may appeal through the appropriate college grade appeal procedures.

**Academic Early Warning System**
Nashville State Community College has implemented an Early Warning System to notify students via e-mail about academic problems such as poor classroom attendance, poor performance on assignments/tests, poor communication skills, late/missing assignments, and/or
lack of classroom participation. *Please note that Early Warning Alerts do not affect a student’s academic standing.

**RAVE Emergency Alert System**

Emergency events can happen at any time and Nashville State Community College wants to be able to notify students if and when they occur. For this reason, all students have been enrolled in the free RAVE alert system. If you have not already done so, please log in at [https://getrave.com/login/nscc](https://getrave.com/login/nscc) to confirm and update your contact information and notification preferences. It is critical that your information be correct so that you will receive any emergency notifications. Your RAVE Username is your NSCC email address. If you’ve never received an email from RAVE with your password, or if you need to reset your password, select “Forgot your password?” and a new password will be emailed to you. Should the RAVE system indicate “user not found”, select Register and create your own RAVE account.

**Inclement Weather Policy**

Nashville State will use the RAVE alert system to send a text message to students, staff, and faculty about adjusted hours of operation and/or closings at individual campuses. All students should check the Nashville State web site home page at [www.nscc.edu](http://www.nscc.edu) for announcements on campus closures, which may vary from campus to campus. Campus closures will also be announced on local television stations.

When classes are cancelled, an online assignment will be posted in NS Online. Check NS Online for a message from your instructor regarding your online assignment requirements.

Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

**Class Cancellation Policy**

If the class is cancelled, the instructor will notify all students by posting in the NSOnline/D2L course, e-mailing through NSOnline/D2L, and/or by posting a sign on the classroom door. In the event of class cancellation, students must access NSOnline/D2L to complete classwork and the assignment that will be posted in the course D2L site.