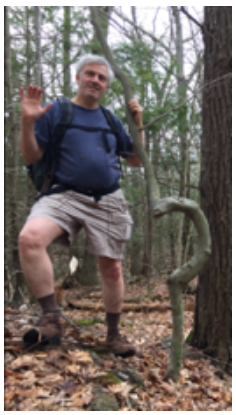
Northern Essex Community College
Department of Science, Technology, Engineering, and Mathematics
BIO 121 L2A (CRN: 1745) – Anatomy and Physiology I
Fall 2024

Welcome



Welcome to Anatomy and Physiology I. My name is Noel Ways. I am a biologist by training, and over the past 35 years, I have had the privilege to teach this course hundreds of times. Oddly, it never gets old. The material is the same, but what breathes life into the classroom every semester is the student. We work together, and we learn together. As you begin your journey into this segment of your academic career, I am here to help guide and encourage you to be the best you can be. Welcome to the class.

Course Information

Name: Anatomy and Physiology I
Course Number: Bio 121 L2A **CRN:** 7145
Credits: 4 Credit Hours. 3 Lecture hours, 2 Lab hours
Dates: September 4 – December 17 (~16 weeks)

Presentation Modality: Hybrid
Class Meeting Dates and Times: Wednesday, 6 pm – 7:50 pm
Location: Lawrence Campus, Dimitry Building, 45 Franklin St., Room L015 → MAP

Prerequisites: BIO 115 Physiological Chemistry or CHM 111 Introduction to Chemistry or higher or high school chemistry in the past five years.

Instructor Contact Information

Instructor: Noel Ways
Email: nways@necc.mass.edu
Virtual Office Hours: As our schedules vary dramatically from one person to another, specific "office hours" that work for all can be challenging. If you would like to meet, email me, and we will schedule a meeting using the Zoom video teleconferencing software program during a mutually acceptable time. On Blackboard, you will find a "Zoom Office Hours" link.

General Course Description

Anatomy and Physiology I is intended to provide a foundational knowledge base for students preparing for a career in the allied health professions. Students taking this course frequently end up in our medical facilities with substantial responsibility for patient health and safety. This course is setting the stage for a successful and responsible life-long career. This an online asynchronous class where students work independently of classroom instruction.

College Course Description

The basic principles of chemistry are reviewed, and the basic principles of biology are introduced. An introduction to the study of the structure and functioning of the human body follows these. The systems covered are integumentary, skeletal, muscular, and nervous. Emphasis will be placed on the interrelationships among the systems. Related topics, such as diseases of the systems, will be integrated where applicable. Laboratory work will include experiments, dissection, microscope work, and the study of charts and models.

General Course Objectives

As we endeavor to prepare you for a career in the allied health professions, specific goals and benchmarks have been established towards this aim. Looking towards this end, the general course objectives listed below expand on the overall course description. As the flow of the course ensues, you will find that the course topics and laboratory work will align with these objectives.

- Develop a working knowledge of anatomical terminology applicable to writing medical reports and reading professional literature associated with their discipline.
- Develop an understanding of how homeostasis is maintained through negative and positive feedback systems
- Distinguish between essential chemical processes and molecular classifications in preparation for further discussion of physiological concepts in both A&P I and A&P II, and clinical instruction.
- Compare and contrast the functional relationships of major cellular organelles.
- Compare and contrast transport mechanisms for substances entering and exiting through the cell membrane.
- Critique different tissues found in the body according to their function-location relationships.
- Differentiate between the regions of the Integumentary System and their functions.
- Write the process of deep wound healing while taking into account the logical progression of healing events through time.
- Relate the structural makeup of osseous tissue to healthy bone maintenance.
- Diagram the homeostatic mechanisms involved in the maintenance of normal blood calcium levels.
- Compare and contrast the stages in the process of healthy bone growth.
- Develop a working knowledge of the body's major bones and the numerous processes, fosses, etc. of the same.
- Categorize the major articulations of the body, both structurally and functionally.
- Relate the anatomy of muscle tissue to how muscles contract.

- Predict the amount of ATP produced per one glucose molecule based upon an illustrated
- Predict the actions of various muscle contractions based upon their location, origin, and insertion.
- Compare and contrast the major parts of the central nervous system according to their essential functions.
- Examine the process of nerve impulse propagation.
- Produce illustrated diagrams of select spinal reflexes.
- Distinguish between the different parts of the human brain and their respective functions.
- Compare and contrast how the different parts of the central nervous system work in a coordinated manner.
- Predict the levels of both sympathetic and parasympathetic nervous activity under various degrees of stress and rest.

Intensive Core Skill Objectives

In addition to the General Course Objectives listed above, Anatomy and Physiology I has been identified by the college as both Science Intensive and Quantitative Intensive. As such, additional objectives unique to this designation are listed below which help qualify the above General Course Objectives. Below is a College statement regarding these objectives:

Intensive Core Skill Objectives

BIO121 has been designated as a **Science and Technology Intensive** course. Students will have the opportunity to develop knowledge and/or skills concerning the ability to:

- Demonstrate basic knowledge of major concepts related to science and technology. This includes current theories, historical and data trends, and empirical findings.
- Be able to critically read, evaluate and interpret research findings and/or theories and draw reasonable conclusions. This includes supporting or rejecting a hypothesis or theory, analyzing case studies, and providing alternative explanations.
- Transfer, adapt, and apply prior knowledge to science and technology related issues and develop new understanding.
- Be able to identify reliable sources of information from a variety of resources including those from the library, websites, journals, magazines, newspapers, and other media.

BIO121 has been designated as a **Quantitative Reasoning Intensive** course.
Students will have the opportunity to develop knowledge and/or skills concerning the ability to:

- Graphical and statistical analysis, such as trends over time.
- Descriptive and/or inferential statistics.
- Data analysis.
- Experimental design and creation of data sets with simple evaluation.
- Application of Mathematics in context.
- Reading, Writing, and/or Critical thinking in context with numbers.
- Development of mathematical solutions and equations to solve problems in context.
- Discussion of multiple interpretations of a single data set.
- An emphasis on the difference between cause and effect versus correlation data.
- Proportional reasoning in the context of real situations.

Course Materials

- **Textbook (Required):** Anatomy & Physiology, by OER Commons
  Note, the textbook is obtained as a free online resource, and can be accessed at:

  https://www.oercommons.org/courses/anatomy-and-physiology-4/view

- **Videos:** YouTube Lecture Videos with Closed Caption
- **Handouts:** Accessible and downloadable PDFs
- **Internet:** Web sites that feature animations explaining complex physiology

Aside from the required text, other course material resources are linked on blackboard.

Course Presentation – 16 weeks, Hybrid Modality

This course will be delivered in a hybrid format with both an online and in-class component. The online component will utilize resources available through Blackboard and the instructor's website, to which Blackboard is linked, and will be aimed at delivering course curricular content. The In-class component will involve weekly meetings on campus for module introduction, laboratory work, and assessment.

Each module will have the following components:

- **Learning Guide** - A Learning Guide will guide the student through the supportive readings, videos, animations, and other media under consideration for any particular lecture/module. This document provides tips on approaching the material and issues of specific concern relating to the associated exam.
- **Lecture Outline** - A lecture outline organizes the course content and guides the student through the material in preparation for associated assessments. In addition, the outline is designed for student note-taking.
- **Handouts** – Handouts highlight points in the lecture sequence requiring special attention, comment, or visual support. These tend to revolve around more complex physiological topics.
- **Videos Support** - Videos of the lectures will follow a lecture outline closely. The goal of this media is to cover all content, both in the lecture setting as well as in the laboratory.
- **Laboratory** - In a traditional educational setting, the laboratory lends itself to a "hands-on" approach to understanding course content. As this course has a laboratory component but is entirely online, rich image banks compensate for this aspect with rich image banks and accompanying video support.
- **Exams** are usually given on a module-by-module basis and are administrated on Blackboard. The exams cover material on the outlines, handouts, and videos. The exams are noncumulative, but any lecture topic assumes a working knowledge of previous lecture topics.

For additional details of the module week, see "Course Walkthrough" in the Getting Started folder on Blackboard.

Zoom Links – "Office Hours Link"

Office Hours

https://zoom.us/j/97324652145

Meeting ID: 973 2465 2145
One tap mobile
+13017158592,,97324652145# US (Washington DC)
+13126266799,,97324652145# US (Chicago)

Dial by your location
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
+1 929 205 6099 US (New York)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 669 900 6833 US (San Jose)
Meeting ID: 973 2465 2145
Find your local number: https://zoom.us/u/aywfgaH2l
Join by SIP

Join by Skype for Business
97324652145@zoomcrc.com
Join by H.323
162.255.37.11 (US West)
162.255.36.11 (US East)
115.114.131.7 (India Mumbai)
115.114.115.7 (India Hyderabad)
213.19.144.110 (Amsterdam Netherlands)
213.244.140.110 (Germany)
103.122.166.55 (Australia Sydney)
103.122.167.55 (Australia Melbourne)
149.137.40.110 (Singapore)
64.211.144.160 (Brazil)
149.137.68.253 (Mexico)
69.174.57.160 (Canada Toronto)
65.39.152.160 (Canada Vancouver)
207.226.132.110 (Japan Tokyo)
149.137.24.110 (Japan Osaka)
Meeting ID: 973 2465 2145

Course Workload – for a 16-week Hybrid Course

We all come from different backgrounds and varying employment obligations and may have family relationships and responsibilities that must be maintained. With the various pulls on our time and resources, scheduling another major activity can sometimes be challenging. For example, planning and scheduling several hours daily for study can be daunting for some. But this must be looked at immediately and requires a quality decision to ensure success in the course.

Two time-blocks need to be set aside:

- ***The first time block*** is approximately four hours to view course resources and videos. This time block should be scheduled on the first day of any module start date. The review of course content should be completed in it's entirely on that day or shortly afterward.
- ***The second time block*** is about three-four hours daily aimed at mastery of course content. Having reviewed the course content, this is the time to integrate the material into your thinking and understanding of Anatomy and Physiology. This time suggestion is highly individualistic, and it is crucial to determine your unique learning requirements.

Assignments

Anatomy and Physiology I is a content-heavy course. Your primary assignment for each lecture topic is to build for yourself a foundation that will carry you through the rest of your developing career. So, with the beginning of a module/lecture topic, your assignment is to gain a working knowledge of the material presented.

Also, as Anatomy and Physiology I is a laboratory course, some topics are presented and assessed more than once, once in a lecture context and the other in a laboratory context. For example, we will discuss

histology in a lecture context and have an appropriate assessment. We will also study histological samples, which are assessed using another assessment format, the laboratory practical, where the material is presented entirely visually. Having alternative methods of studying the material and alternative assessment forms provides students with different avenues to access the content, demonstrate mastery, and reinforce important topics.

To begin the learning process, start with the ***Learning Guides***. These documents will provide insight into approaching the material on a module-by-module basis and point out issues that require special attention or preparation. The lecture outline will then systematically guide you through the text and lecture content. If something is on the outline, you need to know it; if it is not, you are not responsible for it, even if it is in your text. Handouts and videos will supplement and reinforce key concepts.

Regarding the ***Video Support***, I will talk through the lecture content closely following the outline. Note, if something is on the outline you are responsible for it, even if I do not discuss it. Nevertheless, it will require TIME to review the outlines, view associated videos, and study the handouts to understand the material. Regarding laboratory material, mastery of the anatomical characteristics of tissue, bones, organs, etc., and associating appropriate functions with them will be necessary.

Exams and Makeup Work

The assignment of a final semester grade will depend upon completing all exams listed on the syllabus below, of which the lowest grade may be dropped (except for the last unit(s) identified below). These exams will cover material from online assignments, handouts, and video presentations. The nature of the exams is non-comprehensive. However, any particular unit will assume a working knowledge of previous units.

Exams consist of a variety of question types listed below. For details, see the "Assessments" document online.

- True and False
- Matching
- Fill in the Blanks
- Illustrations
- Guided Essays
- Short Answers

Makeup Exams and Documentation - Makeup Exams are to be avoided! But if a makeup is needed, documentation is required to certify that the need is legitimate. If documentation is not presented, a makeup is still permitted, but an adjustment to the grade is made at the instructor's discretion. This adjustment typically reduces extra points that would otherwise bolster your grade. You will never get a grade lower than your earned grade. But if there is to be a makeup, this task should be accomplished within a week of the student's return to school. Contact me so that a time and a date can be coordinated.

Throughout the semester, I will be contacting you on a weekly/biweekly basis to offer you advice, provide comments, and give reminders. If your questions have class-wide import, the questions may be answered and shared with the class. The best place to ask questions is the "Student Interaction Board" on blackboard; therefore, all students will profit from the questions and the answers. Another venue may be scheduling a meeting using Zoom. Students are also encouraged to form online study groups. I have found that students who study together and talk through the material tend to excel.

Communication and Interactions

Weekly scheduled class times provide an opportunity to provide guidance, answer questions, and interact. Beyond this, email and blackboard announcements will provide a platform for answering questions. Another venue may be scheduling a meeting using Zoom. Students are also encouraged to form online study groups. I have found that students who study together and talk through the material tend to excel.

Blackboard

Please make sure to log in to the Blackboard site daily. Announcements, class resources, and all assessments will be handled through Blackboard. I will also regularly broadcast emails to the class through Blackboard. In such cases, Blackboard will send the email to your NECC student account. If you wish, you can change which email account these messages are sent to in your Blackboard settings.

Email

Please check your student email daily. You can also forward your student mail to any other email account. Instructions can be found at: (link to instructions).

Email is the best way to contact me. The turnaround time is typically 24 hours or less.

Email: nways@necc.mass.edu

When you send me an email, always include the following:

- Your name
- Your class (either course number or title, day, and time)
- A relevant subject

Criteria for Grading

As mentioned above, this course aims to build a foundational knowledge base so that you may become a competent medical professional. Committing time and hard work goes a long way toward realizing your career goals. Further, when one receives good grades on exams it gives a certain satisfaction of a job well done.

Exams - Note, **Grading Criteria** are presented in the Learning Guides available on Blackboard. See the Learning Guides for specifics on the criteria for grading, suggestions on where to focus, and special exam activities. Exams are given on a weekly basis in class.

Exam #1	Organization of the Human body	100 points
Exam #2	Chemistry of Life, Part #1	100 points
Exam #3	Chemistry of Life, Part #2	100 points
Exam #4	Cytology	100 points
Exam #5	Histology	100 points
Exam #6	Integumentary system	100 points
Exam #7	Skeletal (Osseous) Tissue	100 points
Lab Exam #1	Histology Practical	100 points
Exam #8	Articulations	100 points
Exam #9	Glycolysis and Cellular Respiration	100 points
Lab Exam #2	Laboratory Practical on Skeletal System	100 points
Exam #10	Myology	100 points
Exam #11	Nervous Tissue	100 points
Exam #12	Spinal Cord, Brain, Autonomic Nervous System	100 points

All exams are weighted equally. Always record your grades! You will want to do this to ascertain how you are doing in the class and be alerted if something is ever (there rarely is) questionable. You can always email me if you have a question.

Grade Calculation - The final semester grade assignment will depend upon completing all lecture exams and lab practicals. All exams are weighted equally. Of all the exams given, the lowest grade may be dropped except for the last unit. To calculate your grade: drop the lowest grade, do a simple average, and then use the Number/Grade Equivalency chart (below). You will know where you stand in the class regarding your grade at any particular time.

NECC Grading System

A link to the College Grading System can be found at: NECC Grading System

Grade	QP Value	Numeric Range/Comment
A	4.00	93-100
A-	3.70	90-92
B+	3.30	87-89
B	3.00	83-86
B-	2.70	80-82
C+	2.30	77-79
C	2.00	73-76
C-	1.70	70-72
D+	1.30	67-69
D	1.00	60-66
F	0.00	59 or less; failure; no credit earned
W	0.00	Withdrawal from the course by the student within the withdrawal period
NW	0.00	Non-participation withdrawal grade assigned by the instructor within the withdrawal period.

Accessibility/Learning Disabilities

"Northern Essex Community College is committed to providing equal access to students with documented disabilities. To ensure equal access to this class (and your program) please contact the Center for Accessibility Resources & Services (CARS) or Deaf and Hard of Hearing Services (DHHS) to engage in a confidential discussion about accommodations for the classroom and clinical/practicum settings.

Center for Accessibility Resources & Services: Serving students with documented disabilities, such as learning disabilities, attention deficit disorders, autism spectrum disorders, brain injuries, chronic illness, low vision/blind, physical disabilities, psychiatric disabilities and seizure disorders.

Deaf and Hard of Hearing Services: Serving students who are Deaf or Hard of Hearing. Accommodations are not provided retroactively. Students are encouraged to register with CARS or DHHS at the start of their program.

The Center for Accessibility Resources & Services is scheduling appointments Mondays through Fridays. Communications/meetings can be flexible based on student's needs and may consist of the following communication options: Zoom, Phone, In-Person or Email.

To get started students may contact us as outlined below:

- **Call** the **Center for Accessibility Resources & Services main number 978-556-3654 or email centerforaccess@necc.mass.edu.**
- **Deaf and Hard of Hearing Services call 978-241-7045 (VP/Voice) or email deafservices@necc.mass.edu.**
- **To request an Interpreter or communication access email: interpret@necc.mass.edu**
- **Individual staff members can be contacted via email**

COVID vaccinations are required to be on campus. NECC is a mask optional campus, however, please consider wearing a mask on campus to mitigate the risk o catching and spreading COVID-19. For current information please visit: Coronavirus Information and Updates and Student COVID-19 Vaccination Requirement.

Statement on Plagiarism and Academic Integrity

As students pursuing a career in the allied health professions, you will someday be in a position with medical or other essential responsibilities. The health and well-being of the people you work with and for are paramount. To operate competently in such positions, a strong foundation in anatomy and physiology is essential. Towards this end, exams serve as weigh points along your road to success. They indicate that you are progressing well and succeeding in your career goals. But to ensure that this process proceeds well, academic integrity and ethical behavior are vital. To receive a grade that does not accurately reflect your knowledge and skill undermines your academic progress and puts you at risk of not fulfilling your goals or potentially harming others in your care. All future coursework and clinical activity will stand squarely on the shoulders of the knowledge base you are lying down now.

All work done on assessments and practicals must be your own. You are encouraged to work together and collaborate, but the work must be your own when an exam is done. Therefore, the following guidelines are established to help guide you in an ethical and legitimate approach to your assessments.

1. When exams are taken, no electronic devices may be on.
2. No web browsers or other sources of information may be used.
3. Violation of the above will result in one of the following
   - a "0" on the exam
   - an "F" for the Course
   - a meeting with the dean of students who would assess the infringement and follow college disciplinary procedures.

NECC Outcomes Assessments

NECC's commitment to student success involves the evaluation of student work at the program, department, and/or campus levels to help ensure that students are achieving the learning outcomes identified by our programs and the college. This process may include the collection of such evidence as student classroom products or classroom-associated reports of student knowledge or skill demonstrations. All collected products will have any identifying information removed before they are reviewed. Results from these reviews are then aggregated to provide an overall view of students' outcomes achievements. Assessments carried out at the program, department, and/or campus levels will not impact students' course grades. The process of assigning grades will continue to be the responsibility of the course instructors. Any student who does not wish to have their products collected for program, department, or campus-level assessment can opt out by notifying their instructor.

Getting Help

I am here to help you with this course and to make this an enjoyable and worthwhile experience. If you would like assistance outside of class, please send me an email to arrange an appointment on Zoom. Please do not wait until the last moment to ask for help. Remember, I am just an e-mail away.

Additional Educational Services

Tutoring: NECC also offers FREE tutoring and other services at:
https://www.necc.mass.edu/succeed/academic-support-services/tutoring-center/

Lecture Syllabus

Below is a tentative but probable schedule of topics and dates. The schedule could be adjusted should unforeseen circumstances occur. Note, the modules below always start on a Wednesday, and the assessment for that module can be anticipated the following Wednesday.

Assignments

A particular Lecture Topic will be considered on a module start date. Your assignment is to use the resources provided to you to begin mastering that topic in preparation for an exam on that topic. As mentioned above, read the Learning Guide on Blackboard for particular guidance on approaching the material. The Lecture Outline will provide structure and organization for the lecture content, and it provides room to take notes. Supplemental handouts will reinforce and expand on anatomical and physiological topics of particular importance or complexity. And in the lecture videos, I will walk you through all (with a few exceptions) the material.

For any particular module start date, this will also typically serve as the assessment date for a previous module. So, before we start a new unit, the assessment of the previous module will be administered.

Northern Essex Community College

Anatomy and Physiology I

SCHEDULE - Fall 2024 - Bio 121 L2A

Lecture: Presented in Hybrid in-class/online

Lab: Presented in Hybrid in class/online

Below is a tentative but probable schedule of topics and dates. The schedule may be modified due to unforeseen circumstances.

NOTE: the lowest exam grade may be dropped with the exception of three exams:

- Bone Practical
- Neurology
- Central Nervous System

→ ***Exam Administration*** - exams administered on BLACKBOARD will open at 7 am and must be completed by 11:59 pm. Please plan accordingly.

→ ***Unexpected College Closures or Interruptions*** - Should there be an unforeseen college closure on a day when an exam is scheduled to be administered in class, The exam will be automatically administered on BLACKBOARD.

September 4 **(Wed)** → Start Module - Organization of the Human Body

❄ *In class* – Homeostasis, Organization of the Human Body

September 10 **(Tues)** Exam #1 - Organization of the Human Body **(Blackboard)**

September 11 **(Wed)** → Start Module - Body Chemistry of Life, Part A
- ❊ In class – Buffer Systems

September 17 **(Tues)** Exam #2a – Chemistry of Life, Part #1 **(Blackboard)**

September 18 **(Wed)** → Continue Module - Body Chemistry of Life, Part B
- ❊ In class – Emulsification

September 20 **(FRI)** Exam #2b – Chemistry of Life, Part #2 **(Blackboard)**
→ Start Module – Cytology

September 24 **(Tues)** Exam #3 - Cytology **(Blackboard)**

September 25 **(Wed)** → Start Module – Histology

October 1 **(Tues)** Exam #4 - Histology **(Blackboard)**
→ Start Module - The Integumentary System

October 2 **(Wed)**
- ❊ *In class* – How to use a Microscope
- ❊ *In class* – Histological Examination of Tissues in Lab

October 8 **(Tues)** Exam #5 – The Integumentary System **(Blackboard)**
→ Start Module – Osseous Tissue

October 9 **(Wed)**
- ❊ *In class* – Histological Examination of Tissues in Lab

October 17 **(Thurs)** Exam #8 – Osseous Tissue **(Blackboard)**

October 16 **(Wed)**
- ❊ *In class* – Histological Examination of Tissues in Lab

October 23 **(Wed)**
- ❊ *In class* – Continue Histological Examination of Tissues

October 30 **(Wed)** Lab Practical #1 – The Histology Practical **In Class**
→ Start Module – Axial Skeletal System
- ❊ *In class* - Axial Skeletal System

→ Start Module – Articulations

November 5 **(Tues)** Exam #7 – Articulations **(Blackboard)**

November 6 **(Wed)** → Continue Module - Axial Skeletal System

→ Start Module - Appendicular Skeletal System

November 13 **(Wed)** → Continue Module - Appendicular Skeletal System

❄ *In class* - continue mastery of the Skeletal System

November 20 **(Wed)** → Start Module - Glycolysis & Cellular Respiration

❄ *In class* – metabolic pathways discussion

November 27 **(Wed)** Exam #9 – Glycolysis and Cellular Respiration **(Blackboard)**

** ***There are no classes after 5 pm, therefore, there is no in-class meeting.***

→ Start Module – Myology

December 3 **(Tues)** Exam #10 – Myology **(Blackboard)**

→ Start Module - Nervous Tissue

The exams below cannot be dropped. Please approach your remaining studies with this in mind

December 4 **(Wed)** Lab Practical #2 – The Bone Practical **(In Class)**

❄ In Class – Brain Dissection
(Bring Goggles and Gloves to Class)

December 9 **(Mon)** Exam #10 – Nervous Tissue **(Blackboard)**

→ Start Module – Central Nervous System
(Spinal Cord, Brain, & Autonomic Nerv. Sys.)

December 17 **(Tues)** Exam #11 – Spinal Cord, Brain, and Autonomic Nervous System **(Blackboard)**

NORTHERN ESSEX COMMUNITY COLLEGE
ACADEMIC CALENDAR, ABRIDGED

Fall 2024

- Official NECC Academic Calendar

↑ Above is a link to the ***official*** NECC Academic Calendar

↓ Below is an ***abridged*** rendition of the Academic Calendar.

Full Semester Classes	September 4- December 17
Session I: First Half Semester Classes	**September 4 - October 26**
Session II: Second Half Semester Classes	October 28 - December 17

Labor Day (College closed)	September 2	
Classes begin	September 4	(Wednesday)
ADD/DROP PERIOD Adding, Dropping or Withdrawing from a Course	September 4-10	
To receive full refund for Full Semester and Session I (classes that begin September 6-12), classes must be dropped by the close of business	September 11	
Withdrawal period begins for full-semester classes	September 12	
NS (No show) roster due by noon	September 20	
Last day to withdraw with a "W" for Semester I	October 11	(Friday)
Indigenous Peoples' Day (College closed)	October 14	(Monday)
Assessment day (no classes)	October 18	
Final Exam period for day and evening classes for Session I Classes	October 21-26	
Session II classes begin	October 28	
Add/drop period for Session Ii classes	October 28 – November 1	
To receive a full refund for Session II, classes must be dropped by the close of business	November 2	
Spring and Summer 2025 Advising/Registration begins	November 4	
Veteran's Day observed (College closed)	November 11	(Monday)
NS (No show) Roster for Session II due by noon	November 12	
Last day to withdraw with a "W" for Full Semester classes And Session I Classes	November 27	
Thanksgiving Recess begins at 5:00 pm (No evening classes)	November 28	
No day or evening classes	November 28-30	
Last day of classes before Final Exams	December 10	(Tuesday)
Final Exam period for day and evening classes for Full Semester classes		**December 11-18**
Fall Semester officially ends	December 17	
Make up day for Final Exams (day classes)	December 14, 18	

Distance Education Course Interaction Plan (Form DE-2)

This form is to be completed by the faculty of record. Students enrolled in this distance education course shall receive a copy of this completed form.

Course Title: *Anatomy and Physiology I*
Faculty: *Noel Ways*
Email: *nways@necc.mass.edu*

In-class Meetings: yes Hybrid: yes Asynchronous Course: Partial Synchronous Course: Partial

Asynchronous: This form of distance education is characterized by an emphasis on "learning on demand" or "as-needed communication" between students and faculty from multiple locations at times convenient to participants.

Synchronous: This form of distance education entails the use of live, two-way communication among and between students and faculty in a scheduled or "fixed" point(s) of time(s), much like classroom-based instruction.

In-class: This form of education does not involve distance learning.
Students and instructors meet in class on campus on fixed days, times, and locations.

This course may include, but not be restricted to, the following interactions:

	YES	NO
1. in-person meetings on campus	√	☐
2. In-person meetings (via Zoom), by appointment	√	☐
3. telephone interactions	☐	√
4. electronic interactions (email, internet …)	√	☐

If yes, dates, times, and places are to be specified.

Students are encouraged to engage in the following interaction(s) for successful completion of this course:

Attend scheduled weekly in-class meetings for lecture, laboratory, and exam taking purposes

Discussion board promotes student-student and student-instructor interactions.

Student-instructor interactions occur weekly in-class, via email and announcements. Should a follow-up meeting be necessary, an online Zoom meeting may be scheduled at a mutually acceptable time.