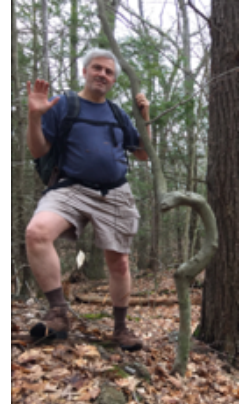


Northern Essex Community College
Department of Science, Technology, Engineering, and Mathematics
BIO 121 OGA (CRN: 7427) – Anatomy and Physiology I
Fall 2025 (Session II)

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 of teaching this course hundreds of times. Oddly, it never gets old. The material remains the same, but what breathes life into the classroom each semester is the students. We work together, and we learn together. As you begin your journey in this part of your academic path, I am here to guide and encourage you to be your best. Welcome to the class.



Course Information

Name: Anatomy and Physiology I
Course Number: Bio 121 OGA **CRN:** 7427
Credits: 4 Credit Hours. 3 Lecture hours, 2 Lab hours
Dates: October 29 – December 16 (~7 weeks)

Presentation Modality: Online

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: Since our schedules vary greatly from person to person, setting specific “office hours” that work for everyone can be challenging. If you would like to meet, email me, and we will arrange a meeting via Zoom at a mutually convenient time. You will find a “Zoom Office Hours” link on Blackboard.

General Course Description

Anatomy and Physiology I aims to provide a foundational knowledge base for students preparing for careers in allied health fields. Many students taking this course will work in medical settings with significant responsibility for patient health and safety. This course sets the stage for a successful and responsible lifelong career. It is an online, asynchronous class where students work independently of scheduled classroom instruction.

College Course Description

The course reviews basic principles of chemistry and introduces fundamental biological concepts. This is followed by an introduction to the study of the structure and function of the human body. The systems covered include the integumentary, skeletal, muscular, and nervous systems. Emphasis is placed on the interrelationships among these systems. Related topics, such as diseases affecting these systems, will be integrated where relevant. Laboratory work will include dissections, microscope work, and the study of charts and models.

General Course Objectives

To prepare you for a career in the allied health professions, specific goals and benchmarks have been established. The following course objectives expand on the overall course description. As the course progresses, you will see that the topics and laboratory activities align with these objectives.

- Develop a working knowledge of anatomical terminology useful for writing medical reports and reading professional literature relevant to your discipline.
- Understand how homeostasis is maintained through negative and positive feedback mechanisms.
- Differentiate essential chemical processes and molecular classifications as groundwork for further physiological study in A&P I and A&P II, as well as clinical applications.
- Compare and contrast the functions of major cellular organelles.
- Examine transport mechanisms for substances entering and leaving cells.
- Evaluate different tissue types based on their functions and locations.
- Distinguish the regions of the Integumentary System and their functions.
- Describe the process of deep wound healing, considering the logical progression of healing events over time.
- Relate the composition of osseous tissue to healthy bone maintenance.
- Illustrate the homeostatic mechanisms involved in maintaining normal blood calcium levels.
- Compare the stages of healthy bone growth.

- Develop a working understanding of the major bones and features such as processes and fossae.
- Categorize the body's major joints both structurally and functionally.
- Relate muscle anatomy to contraction mechanisms.
- Predict ATP production per glucose molecule based on illustrations.
- Anticipate the actions of different muscles based on their origin, insertion, and location.
- Comprehend the core functions of the main parts of the central nervous system.
- Explain nerve impulse propagation.
- Create diagrams of selected spinal reflexes.
- Identify parts of the brain and their functions.
- Understand how different parts of the central nervous system work together.
- Predict levels of sympathetic and parasympathetic activity under various stress and rest conditions.
- 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, that 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:** Websites that feature animations explaining complex physiology

Aside from the required text, other course material resources are linked 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/j/97324652145>

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 Presentation – ~7 weeks, Asynchronous/Online Modality

This course is delivered Asynchronously online, where the students work independently outside a traditional classroom and laboratory setting. The delivery of course curricular content will utilize resources available through Blackboard and the instructor's website, to which Blackboard is linked. The course content is organized into modular components to facilitate accessibility, clarity, and organization to this process.

Method of Instruction – ~7 weeks, Asynchronous/Online Modality

Each module will include the following components:

- **Learning Guide** - A Learning Guide helps students navigate supportive readings, videos, animations, and other media related to each lecture/module. It offers tips on approaching the material and highlights issues related to the associated exam.
- **Lecture Outline** - A lecture outline organizes the course content and guides students through the material in preparation for assessments. It is also designed to aid note-taking.
- **Handouts** – Handouts emphasize critical points in the lecture sequence that require special attention, commentary, or visual support. They often focus on more complex physiological topics.
- **Videos Support** - Videos of the lectures follow the outline closely. Their purpose is to cover all content discussed in both lecture and laboratory settings.
- **Laboratory** - While traditional labs provide a hands-on approach to understanding course content, this online course uses rich image banks with accompanying videos to compensate for the lack of physical labs.
- **Exams** - Exams are typically administered on Blackboard on a module-by-module basis. Exams cover material from outlines, handouts, and videos. They are non-cumulative, but understanding earlier lecture topics is assumed.

For more details about each week, see “Course Walkthrough” in the Getting Started folder on Blackboard.

Workload for a full semester - ~7-week Online Course

We come from diverse backgrounds, with various employment and family responsibilities that must also be maintained. Managing time for another major activity can be challenging. For example, setting aside several hours daily for study can be overwhelming for some. However, addressing this early and making a good decision is vital for success. To facilitate this, two blocks of time should be set aside:

- *The first time block* is approximately four hours to review course resources and

videos. This should be scheduled on the first day of any new module. The review should be completed on that day or shortly afterward.

- ***The second time block*** is about four to five hours daily to master the course content. After reviewing the material, use this time to internalize and understand Anatomy and Physiology. This time suggestion is approximate and may need to be adjusted according to the student's unique learning requirements.

To help achieve your goal of becoming a skilled medical professional, I encourage you to discuss your educational plans with those people close to you. Also, review your schedule and make necessary adjustments that align with your career aspirations. The word “priorities” comes to mind.

Assignments

Anatomy and Physiology I is a content-intensive course. Your main task is to build a solid foundation that will support your future career. Your goal at the start of each module is to develop a working knowledge of the material.

As a course that includes laboratory work, some topics are revisited in both lecture and lab formats. For example, we will discuss histology in lecture and then assess it with a laboratory practical, which relies mainly on visual identification. Offering multiple study methods and assessment formats allows students to access and demonstrate mastery of content in different ways.

Begin with the **Learning Guides**, which offer insight into approaching each module and highlight key areas requiring attention. The lecture outline aligns with the logical progression of curricular content and therefore lends structure to your study. If a topic appears on the outline, you are responsible for it; if not, it's not required, even if mentioned in the textbook. Supplements such as handouts and videos reinforce core concepts.

Regarding **Video Support**, I will discuss lecture content following the module outlines closely. Again, reviewing outlines, videos, and handouts will require dedicated time in order to grasp the material. Mastery of anatomical features and their functions will also be crucial for laboratory work, including identifying tissues, bones, organs, and understanding their roles.

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 few units). These exams will cover material from online assignments, handouts, and video presentations. The

nature of each exam is non-comprehensive. However, any particular unit will assume a working knowledge of previous units.

Blackboard exams are also timed. You will have enough time to read the question, pause, and put down an answer. To ensure this process goes well, master the material well before the exam date. Also, there is no backtracking for Blackboard exams, and the exams must be done in one sitting. For details, see the ["Assessments"](#) document online.

Assessments consist of a variety of question types, as listed below.

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

Exam Answers – Answers on exams must reflect the working knowledge of the content as presented in the module. Potentially, an answer may be correct but was not covered in the module or was presented in a manner that is not reflected in the answer. Here, questions arise as to the source of the answer, and therefore, would be incorrect for the purposes of the exam. Answers on exams must reflect a working knowledge and understanding of the vocabulary and concepts as presented in the module.

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. 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. For further elaboration of exam and makeup policies, see the link: [**Exam Policies!**](#)

Exam Retention - Completed exams are retained as a record of student performance. Exams are not returned as having exam content in general circulation compromises the academic integrity of the assessment process.

Communication and Interactions

Throughout the semester, I will be contacting you on a weekly/biweekly basis to offer you advice, provide comments, and give reminders. Another venue is scheduling a Zoom meeting. 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

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: nways@necc.mass.edu

Required Information - When you send me an email, always include:

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

Email Client – Only use your NECC mail! If you use your personal email, the email may not be read as the source is coming from outside the college community and there will be warnings, flags, and the email may be quarantined. So, if you do not receive an answer from me, please resend the message using the NECC email client.

Email Turnaround Time – The email turnaround time is generally 24 hours. Should you not receive a response from me within 24 hours, please resend the email as it may have gotten “buried” or lost.

Video Conference Software – The Zoom video conference software is use for getting together and chatting should after class time not be available. Contact me by email so that we can establish a mutually acceptable time to meet. The Zoom link is on Blackboard.

Student Interaction Board – The Student Interaction Board is a discussion board that may be used to communicate with the class at large. Communication etiquette is required to use this class-wide facility.

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 bi-weekly 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 there is ever (there rarely is) something that appears 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(s). 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 point in time.

NECC Grading System

A	4.00	93-100	C	2.00	73-76
A-	3.70	90-92	C-	1.70	70-72
B+	3.30	87-89	D+	1.30	67-69
B	3.00	83-86	D	1.00	60-66
B-	2.70	80-82	F	0.00	59 or less; failure; no credit earned
C+	2.30	77-79			
W	0.00	Withdrawal from the course by the student within the withdrawal period			
NP	0.00	Non-participation withdrawal grade assigned by the instructor due to evidence of non-participation			
IP (or I)		In progress. Extension granted due to extenuating circumstances			

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 of 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 important responsibilities. The health and well-being of the people you work with and for are paramount. A strong foundation in anatomy and physiology is essential to operate competently in such positions. Towards this end, exams serve as weigh-points along your road to success. They indicate that your progress is progressing well, and you are now succeeding in your career goals. However, 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 laying down now.

Artificial Intelligence (AI) Technology – Use of Artificial Intelligence is encouraged to the degree that it can enhance your understanding of course content. However, the use of Artificial Intelligence for any and all assessments is prohibited.

Exam Answers – exam answers must represent an understanding of course content as presented in the lecture sequence. An answer that is correct but was not covered in the module content or is dissimilar to the content presented will be considered wrong for exam purposes. Answers must reflect a working knowledge of the vocabulary and content as presented. Deviations from this rule raised questions regarding the source of the answer.

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 Assessment (a College Statement)

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 likely schedule of topics and dates. This schedule may be adjusted if unexpected circumstances arise.

Assignments

On a module start date, a particular Lecture Topic will be under consideration. Your assignment is to use the resources provided to you to begin mastering that topic in preparation

for an assessment (exam) on that topic. As mentioned above, read the Learning Guide found on Blackboard for particular guidance on how to approach 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. 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 typically be administered. For example:

Northern Essex Community College

Anatomy and Physiology I

SCHEDULE – Fall 2025 – NECC – Bio 121 OGA

Lecture: Presented Asynchronously Online

Lab: Presented Asynchronously Online

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

→ **Exam Administration** - exams administered on **BLACKBOARD** will open at 8 am and must be completed by 11:59 pm. Please plan accordingly.

NOTE: The lowest exam grade may be dropped with the exception of the last few exams:

- Myology
- Nervous System

October 29 **(Wed)** → Start Module - Organization of the Human Body

November 1 **(Sat)** Exam - Organization of the Human Body
→ Start Module - Chemistry of Life, Part #1

November 4 **(Tues)** Exam – Chemistry of Life, Part #1 (Inorganic Chemistry)
→ Continue the Chemistry of Life, Part #2

November 7 **(Fri)** Exam – Chemistry of Life, Part #2 (Organic Chemistry)
→ Start Module – Cytology

November 10 **(Tues)** Exam - Cytology
→ Start Module – Histology

November 14 **(Fri)** Exam - Histology
→ Start Module - The Integumentary System

November 18 **(Tues)** Exam – The Integumentary System
→ Start Module – Osseous Tissue

November 21 **(Fri)** Exam – Osseous Tissue

November 24 **(Mon)** Lab Practical #1 – The Histology Practical
→ Start Module –Skeletal System, Part #1 (Axial)

November 26 **(Wed)** → Start Module – Articulations

November 28 **(Fri)** Exam – Articulations
→ Start Module –Skeletal System, Part #2 (Appendicular)

December 1 **(Mon)** → Start Module - Glycolysis & Cellular Respiration

December 4 **(Thurs)** Exam – Glycolysis and Cellular Respiration

December 9 **(Tues)** Lab Practical – The Bone Practical (Axial and Appendicular)
→ Start Module – Myology

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

December 12 **(Fri)** Exam – Myology
→ Start Module - Nervous System

December 17 **(Wed)** Exam – Nervous System

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

Session I: First Half Semester Classes

Session II: Second Half Semester Classes

September 4- December 17

September 4 - October 26

October 28 - December 17

Labor Day (College closed)

Classes begin

ADD/DROP PERIOD Adding, Dropping or Withdrawing from a Course

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

Withdrawal period begins for full-semester classes

NS (No show) roster due by noon

Last day to withdraw with a "W" for Semester I

Indigenous Peoples' Day (College closed)

Assessment day (no classes)

Final Exam period for day and evening classes for Session I Classes

Session II classes begin

Add/drop period for Session II classes

To receive a full refund for Session II, classes must

be dropped by the close of business

Spring and Summer 2025 Advising/Registration begins

Veteran's Day observed (College closed)

NS (No show) Roster for Session II due by noon

Last day to withdraw with a "W" for Full Semester classes

And Session I Classes

Thanksgiving Recess begins at 5:00 pm (No evening classes)

No day or evening classes

Last day of classes before Final Exams

Final Exam period for day and evening classes for

Full Semester classes

Fall Semester officially ends

September 2

September 4 (Wednesday)

September 4-10

September 11

September 12

September 20

October 11 (Friday)

October 14 (Monday)

October 18

October 21-26

October 28

October 28 – November 1

November 2

November 4

November 11

November 12

November 27

November 28

November 28-30

December 10

December 11-17

December 17

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: No

Asynchronous Course: Yes

Synchronous Course: No

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/or 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 and 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, places are to be specified.

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

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

A discussion board is available as an optional mode to promote student-student and student-instructor interactions.