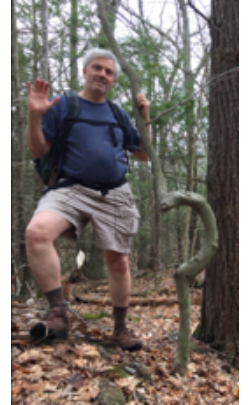


Northern Essex Community College
Department of Science, Technology, Engineering, and Mathematics
BIO 122 L2A – Anatomy and Physiology II – Hybrid
Summer 2025, Session III – 12 Week

Welcome

Welcome to Anatomy and Physiology II. My name is Noel Ways. I am a biologist by training, and for over ~33 years, I have had the privilege to teach both A&P I and A&P II hundreds of times. Oddly, the content 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 II

Course Number: Bio 122 L2A **CRN:** 5026

Credits: 4 Credit Hours. 3 Lecture hours, 2 Lab hours

Dates: May 19 – August 8 (~12 weeks)

Presentation Modality: Hybrid

Class Meeting Days and Times: Friday, 5 pm – 8:50 pm

Location: Dimitry Building, 45 Franklin Street, Lawrence, MA

Room L 015

Link to map: [MAP](#)

Prerequisites: BIO 121 Anatomy and Physiology I

Instructor Contact Information

Instructor: Noel Ways

Email: nways@necc.mass.edu

Office Hours for a Hybrid Modality: As our schedules vary dramatically, specific “office hours” that work for all can be challenging. The best time is immediately after any class meeting. However, if this does not work, email me, and we can schedule a meeting using the Zoom video conferencing software program during a mutually acceptable time. You will find a “Zoom Office Hours” link on Blackboard.

College Course Description

A continuation of BIO121 Anatomy & Physiology I. Systems covered are circulatory, endocrine, reproductive, urinary, digestive and respiratory. (3 hours of lecture and 2 hours of lab per week.)

General Course Description

Human Anatomy and Physiology II is considered a "gateway course," and is designed to provide an anatomical and physiological foundation for further coursework for students pursuing careers in the allied health fields. We will explore the human body, how it is put together, and how the various parts work together. This course is a continuation of Human Anatomy and Physiology I, and will proceed on a system-by-system basis.

The course will begin with a study of the cardiovascular system, followed by an in-depth look at the immune and respiratory systems. Other organ systems, such as the digestive, urinary, and reproductive systems, will also be examined. Other subjects of particular relevance will be discussed at appropriate points in the lecture sequence.

The course's laboratory component is designed to give the students a "hands-on" appreciation of the anatomical considerations discussed in the lecture and to familiarize them with some of the more basic physiological concerns related to gross anatomy. All course components (Lectures and Labs) will be delivered online using online and video resources.

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.

Module - Blood

- Distinguish between the formed elements of the blood by name and function.
- Describe erythrocyte production and regulation.
- Describe hemostasis and the control of blood clotting.
- Illustrate the CO₂ gas transport as it involves erythrocytes.
- Compare and contrast leukocyte functions in fighting infection.

Module - Heart

- Identify the name and functions of the structures of the heart.
- Explain the cardiac cycle, integrating electrical activity, pressure issues, EKG, heart sounds, and blood flow.
- Describe how cardiac output is controlled.

Module – Vessels and Routes

- Compare and contrast the tissues of blood vessels and how tissue differences affect the specific functions of various vessel types.
- Identify specific major blood vessels in the body.
- Describe the vessels of and function of the hepatic portal system and the hypothalamic hypophyseal portal system.
- Describe the fluid exchange of capillaries and fluid return to the heart.
- Illustrate blood pressure regulation.

Module – Lymphatic System

- Identify the name and functions of lymphatic organs.
- Describe the relationship of various organs to the particular functions in the immune response and other blood maintenance activities.

Modules – Nonspecific Host Immunity *and* Adaptive Immunity

- explain the essential components of both non-specific and specific host immune responses.
- Critique the complement system and place of interferon in the immune system.

Module – Respiratory System

- Identify the major organs of the respiratory system and their functions.
- Explain the mechanism of gas transport.
- Describe the anatomy and physiology of the larynx and sound production.
- Explain how lungs are “inflated” and what happens in pneumothorax.
- Explain the mechanisms that affect the oxygen carrying-capacity of hemoglobin.

Module – Digestive System

- Identify the major organs of the digestive system and their functions.
- Describe gastric regulation
- Describe the process of lipid digestion and transport
- Describe the process of deglutition

Module – Urinary System

- Identify the major organs of the urinary system and their functions.
- Compare and contrast nephron components in terms of their anatomy and physiology

Modules – Male Reproductive System *and* Female Reproductive System

- Identify the structures and functions of major organs of the reproductive system
- Describe the hormonal regulation of spermatogenesis
- Describe and integrate the physiology of both the uterine cycle and the ovarian cycle
- Illustration several examples of hormonal regulation in the body

Intensive Core Skill Objectives

In addition to the General Course Objectives listed above, Anatomy and Physiology II 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 and Physiology* an Open Educational Resource (OER).

<https://openstax.org/details/books/anatomy-and-physiology>

- **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 materials are linked on Blackboard.

Zoom “Office Hours” Link

→ Office Hours

Join Zoom Meeting

<https://zoom.us/j/96233097264>

Meeting ID: 962 3309 7264

One tap mobile

+13017158592,,96233097264# US (Washington DC)

+13126266799,,96233097264# 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: 962 3309 7264

Find your local number: <https://zoom.us/u/adSc6HD29O>

Join by SIP

96233097264@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: 962 3309 7264

Join by Skype for Business

<https://zoom.us/skype/96233097264>

Course Presentation – 12 weeks, Hybrid Modality

This particular section of A&P II is presented in a semi-accelerated format with largely intact and unabridged course content. The exception will be the urinary system, which we will approach in an overview format through laboratory study. This course is accelerated, as the content that would typically be covered in a 16-week semester will now be condensed into 12 weeks.

This section of A&P II is also presented in a hybrid format, where two modalities are employed:

- In-class time for instruction, laboratory exercises, and assessments.
- Asynchronous online learning, where students work independently using online resources to master course content and complete some assessments.

Most exams are given on Blackboard. Course content will be presented in a modular format, with each module having its own assessment (exam). This approach is beneficial as it reduces the overall content for any single exam.

This modular presentation includes a variety of resources to guide your mastery of the content. Outlines and handouts will provide structure and explanations. Videos for all content have been prerecorded and are nearly identical to an in-class, face-to-face modality. You will find the course well organized, making it easy to follow the flow of information.

Communication with the class is frequent, and we will meet weekly. There will also be regular announcements on Blackboard. I am available to meet with students via Zoom. Student–student interactions may occur on a discussion board on Blackboard.

Method of Instruction

This course is delivered in a hybrid modality where the students gather periodically at the college to work on select topics, laboratory work, or assessments. Students also perform signification 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 the organization of this process.

Each module will have the following components:

- **Module (or Lecture) Home Page** – The Module Home Page serves as a resource hub for the instructional unit. The Module Home Page will contain a lecture outline, supportive handouts, laboratory considerations, videos, and other resources. This Module Home Page is located on Blackboard and can also be accessed on the website: www.noelways.com.
- **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 exams.
- **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.
- **Video 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 accompanying video support.
- **Exams** are usually given on a module-by-module basis and are administered 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.

Attendance – As this is a hybrid course, scheduled class times are scheduled, and students are expected to attend class. Attendance is taken during class and can positively impact your grade.

Course Workload

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. However, this must be looked at immediately and requires a quality decision to ensure success in the course.

Two blocks of time 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 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.

To secure the necessary time required to fulfill your aspiration of becoming a proficient medical professional, I also encourage you to talk to those people important in your life about your educational needs at this juncture in your developing career. I encourage you to look carefully at all the time-demanding activities in your life and make appropriate adjustments in light of your important career aspirations. The word “priorities” comes to mind here.

Assignments

Anatomy and Physiology I is a rigorous course rich with content. Your primary assignment for each module is the continued building of a foundation to support your developing career. Thus, as you embark on a module or lecture topic, your responsibility is to acquire a working understanding of the material presented in the module. Each module will come with a **Learning Guide** that will guide you through the specific goals and key points to consider in preparation for an assessment. The module content is outlined in the Lecture Outline. The **Lecture Outline** will serve the following purposes:

- The “Lecture Outline” is designed for note-taking purposes.
- The “Lecture Outline” is your study outline.
- The “Lecture Outline” is also the exam outline. If something is on the outline you will need to know it. If something is not on the outline, you do not need to know it, even if it is in the textbook.

To begin the learning process, start with the **Learning Guides**. These documents provide insight into approaching the material on a module-by-module basis and point out matters that require special attention or preparation. The lecture outline will then systematically guide you through the text and lecture content. Handouts and videos will supplement and reinforce key concepts.

Regarding the **Video Support**, as I will discuss the lecture content, you will find it closely following the

outline. Note that if something is on the outline, you are responsible for it, even if I do not discuss it. Note that 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 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, and there is no backtracking. 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. Again, 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. Occasionally, an answer may be correct, but it was not covered in the module, or the answer was presented in a manner that does not reflect the module's content as presented. Here, questions arise as to the source of the answer, and therefore, it 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 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 one week of the student's return to school. See the document, ["Exam Makeup"](#) for more clarification. If you do need to do a makeup, contact me so that a time and a date can be coordinated.

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. If your questions have class-wide import, the questions may be answered and shared with the class. Another avenue for communication is the "Student Interaction Board" on Blackboard. By using this, 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.



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.

If you find that you are having difficulty with Blackboard, contact the college “helpdesk.”

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. A commitment of time and hard work goes a long way towards realizing your career goals. Further, when one receives good grades on exams it gives a certain satisfaction of a job well done.

Exams - Grading criteria is 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 for special exam activities. Exams are given on a weekly basis. On the day of an exam, the exam will be found in the appropriate folder at the bottom of the list (i.e., Exam #1 will be in the “Blood” folder; Exam #2 will be in the “Heart” folder).

Exam #1	Blood	100 points
Exam #2	Heart	100 points
Exam #3	Vessels and Routes	100 points
Exam #4	Lymphatic and Non-specific Host Immunity	100 points
Exam #5	Non-specific Host Immunity	100 points
Lab Exam #1	Lab Practical #1 (Heart and Vessels)	100 points
Exam #6	Respiratory System, Part #1 and Part 2	100 points
Exam #7	Digestive System, Part #1	100 points
Exam #8	Digestive System, Part #2	100 points
Lab Exam #2	Lab Practical #2 (Lymph, Resp, Dig, Uri. Sys)	100 points
Exam #9	Male Reproductive System	100 points
Exam #10	Female Reproductive System	100 points

All exams are weighed equally. Always record your grades! You will want to do this not only to ascertain how you are doing in the class but also to be alerted if there is something that appears questionable (there rarely is). Of course, 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. The lowest grade may be dropped except for the last few unit exams. Calculating your current standing in the class is simple: 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](#)

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 lying 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 – As mentioned earlier, 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 a similar manner as in the course sequence presented will be considered wrong for exam purposes. Answers must reflect a working knowledge of the vocabulary and content as presented.

All work done on assessments and practicals must be your own. You are encouraged to work together, prepare 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 successful experience. Please email me if you would like assistance regarding study tips, progress, or other issues. We can also collaborate through an appointment on Zoom. So please do not wait until the last moment to ask for help. Remember, I am just an email away.

Additional Educational Services

Tutoring: NECC also offers FREE tutoring.

Lecture Syllabus

Below is a tentative but probable schedule of topics and dates. The schedule may be adjusted according to the progress of the lecture sequence or should unforeseen circumstances occur.

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* found on Blackboard for particular guidance on how to approach the material. In addition, the *Lecture Outline* will provide structure and organization for the lecture content and provide 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) of the material.

Northern Essex Community College

Anatomy and Physiology II

SCHEDULE – Summer 2025 – Bio 122-L2A

12 Week – Hybrid

Below is a tentative but probable schedule of topics and dates. The schedule may be modified according to the progress of the lecture or unforeseen circumstances.

NOTE: The lowest exam grade may be dropped except for the:

- Reproductive Exams (male and female)
- Final Exam (Lab Practical #2)

Blackboard Exams are open from 7 am and are to be completed by 11:59 pm.

In-class Exams are at the beginning of class. Always be on time.

Module and Exam DATES

May 19 (Mon) → **Start Module - Blood**

May 23 (FRI) * **Continue Module - Blood**

May 28 (Wed) Exam – Blood (BLACKBOARD)
→ **Start Module – Heart**
(Review and note-take content before Friday)

May 30 (FRI)	<ul style="list-style-type: none"> * Continue Module – Heart * Lab Heart Anatomy (Bring safety eyewear to class)
June 6 (FRI)	<i>Exam - Heart (IN CLASS)</i> → Start Module - Vessels and Routes <ul style="list-style-type: none"> * Lab Vessel Identification
June 12 (Thurs)	<i>Exam – Vessels and Routes (BLACKBOARD)</i> → Start Module - Lymphatic
June 13 (FRI)	→ Continue Module - Lymphatic <ul style="list-style-type: none"> * Lab Vessel Identification
June 17 (TUES)	<i>Exam – Lymphatic (BLACKBOARD)</i> → Start Module - Non-specific Host Immunity
June 20 (FRI)	→ Continue Module - Non-specific Host Immunity <ul style="list-style-type: none"> * Review for Lab Practical #1
June 21 (SAT)	<i>Exam – Nonspecific Host Immunity (BLACKBOARD)</i>
June 27 (FRI)	<i>Lab Practical – Heart and Vessel Lab Practical (IN CLASS)</i> → Start Module - Specific Host Immunity
July 5 (SAT)	<i>Exam – Specific Host Immunity (BLACKBOARD)</i> → Start Module - Respiratory System, Part #1 <ul style="list-style-type: none"> * Anatomy of Upper Respiratory Tract
July 9 (Wed)	<i>Exam – Respiratory System, Parts #1 (BLACKBOARD)</i> → Start Module - Respiratory System, Part #2
July 11 (FRI)	→ Continue Module - Respiratory System, Part #2 <ul style="list-style-type: none"> * Anatomy of Lower Respiratory Tract
July 14 (Mon)	<i>Exam – Respiratory System, Parts #2 (BLACKBOARD)</i> → Start Module - Digestive System, Part #1

July 18 (FRI) → **Continue Module - Digestive System, Part #1**

July 19 (SAT) *Exam – Digestive System, Part #1* (BLACKBOARD)

→ **Start Module - Digestive System, Part #2**

* Anatomy of the Digestive System

July 25 (FRI) *Exam – Digestive System, Part #2* (IN CLASS ??? Sat??? TBA)

→ **Start Module - Male Reproductive System**

* Anatomy of the Digestive System

* Introduction to Anatomy of the Urinary System

July 30 (Wed) *Exam – Male Reproductive System* (BLACKBOARD)

→ **Start Module - Female Reproductive System**

August 1 (FRI) → **Continue Module - Female Reproductive System**

* Introduction to Anatomy of the Urinary System

August 4 (Mon) *Exam 11 – Female Reproductive System* (BLACKBOARD)

August 8 (FRI) *Lab Practical – Lymph., Resp., Dig., and Urinary Systems* (IN CLASS)

Academic Calendar, abridged

NORTHERN ESSEX COMMUNITY COLLEGE ACADEMIC CALENDAR, ABRIDGED

Summer 2024

- Official NECC [Academic Calendar](#)

Below is an *abridged* rendition of the Academic Calendar.
Click the link above for the official NECC Academic Calendar.

Summer Session III 2024

Classes meet for 12 weeks Monday, May 20 - Friday, August 9

Book Voucher Period

Session III classes begin

To receive a full refund for Session III,
classes must be dropped by the close of business
See Student Affairs Hours and Refund Policy

Memorial Day (College closed)

No Show (NS) Roster due by noon for Summer Session III classes

Juneteenth holiday (no classes)

Independence Day Holiday (College closed)

Last Day to Withdraw with "W"

Finals Period for Day and Evening Classes

Grades due by noon

May 13-31	
May 20	(Monday)
May 24	
May 27	(Monday)
May 31	
June 19	(Wednesday)
July 4	(Thursday)
July 5	(Friday)
August 3-9	
August 13	

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 II*

Faculty: *Noel Ways*

Email: *nways@necc.mass.edu*

✓ Asynchronous Course

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.

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

	YES	NO
1. Weekly Announcements	✓	<input type="checkbox"/>
2. telephone interactions	<input type="checkbox"/>	✓
3. electronic interactions (email, internet ...)	✓	<input type="checkbox"/>
4. Discussion board	✓	<input type="checkbox"/>

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:

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.

Open invitation for Zoom meetings to discuss content and exams.