

BMS 508 – Human Anatomy & Physiology 2

Spring 2025 (1/21/25 – 5/13/25)

Instructor Contact Information

Dr. Sue Cooke, Senior Lecturer

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Office Hours: M/W 10-10:30 and by appt.

Class Schedule

Lecture: M/W, 8:40-10am
Pandora 380

Lab: R 9-noon
Pandora 540

Course Overview & Objectives

In this course, we will continue the investigation of cellular and systematic aspects of the human body begun in BMS507. The systems and topics that will be covered include endocrine, blood, cardiovascular, respiratory, immune, digestive and metabolism, urinary, acid-base and electrolyte balance and reproductive. Laboratory activities will reinforce what is covered in lecture and will utilize both preserved specimens and computer-aided instruction in addition to activities which will assess the students own physiological functions. During the course, students will be able to:

- Recognize, define and utilize appropriate terminology to refer to the structures and functions of the systems covered
- Identify and explain the structures and functions of the systems covered.
- Demonstrate an understanding of the relationship between structure and function in the systems covered
- Express how the normal structure and function of the systems covered contribute to maintaining homeostasis in the body
- Relate the symptoms of a disease or disorder to the underlying changes in anatomy and or physiology associated with that condition



Course Materials

Textbook:

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,

www.openstax.org/details/anatomy-and-physiology

Other Materials:

- Access to Mastering Anatomy and Physiology website (access through link in MyCourses)
- Lab coat

Your textbook for this class is available for free online! If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com. You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)

Course modality:

This is a face-to-face course. Course materials will be posted in modules on MyCourses each week. on Monday at 12:01am. Modules will include links to all materials necessary to complete the work for that week, including both lecture and lab materials. Assignments submitted online will generally be due at midnight on the evening prior to class or lab, depending on the assignment.

Time Commitment & Grading

Credit Hours & Time Commitment:

This is a 4 credit course that involves both lecture and lab activities/assignments. According to the UNH [Credit Hour Policy](#), a 4 credit course equals 12 hours of student academic work per week for a 15 week course. You will spend 3 hours per week in lecture and 3 hours per week in lab. You should therefore plan to spend approximately 6 hours per week outside of class completing assignments and reviewing materials to prepare for assessments.

Evaluation:

- 4 lecture exams (100pts each), 400 points total (67% of final grade)
- Mastering A&P assignments (12 assignments, 8% of final grade)
- Laboratory grade (150 points total, 25% of final grade)

Final grades will be calculated in accordance with the standard UNH grading scale.

Exams:

During the course you will take 4 non-cumulative exams. All exams will be taken face to face during the lecture period. All exams must be completed during the designated time frame (3 hours) unless other accommodations have been made. No makeup exams will be given without a documented excuse. Please speak with me as far in advance as possible if you have a conflict with a scheduled exam time. There will be extra credit points available on tests. I will not give additional extra credit assignments to individual students who are unhappy with their grades because that is not fair to the rest of the class!

Course and University Policies & Resources

Attendance and Late Work

In general, attendance is mandatory because it is strongly correlated with success in this course! This is a fast-paced class and we will cover a significant amount of content during each meeting. I will take attendance at the start of each class. If you arrive late, you are responsible for checking in with me before leaving class. This is your responsibility. I will not accept emails after class as proof of attendance! You should make every effort to be on time for class because walking in late is disturbing to other students. We understand there may be unavoidable circumstances that prevent you from attending. If you cannot attend a lecture or a lab for any reason, please let us know as far in advance as possible and we will attempt to accommodate you.

If arrangements are made in advance, late work will not be penalized. Without advanced notice, a 10% deduction will be taken from all late assignments and assessments. All work not completed at the time of the final exam will receive a 0 unless prior arrangements have been made.

Classroom behavior

You are expected to conduct yourself in a professional manner at all times while participating in this course. This includes an expectation of respectful behavior during any online or face to face interactions with classmates or myself.

In regards to cell phones and other electronic devices, please turn off your cell phones in class! If you MUST have your cell phone on because you are expecting an emergency call or need to be available for personal matters, please keep your cell phone on vibrate and leave the room to answer it. If possible, inform me in advance if you are expecting a call and sit on the end of a row so you minimize disturbances to your fellow students! DO NOT TEXT OR ACCESS FACEBOOK OR OTHER SOCIAL MEDIA DURING CLASS.

Important Academic Policies

Academic Alerts

The University is invested in your academic success. If a faculty member is concerned about your academic behavior or performance, they may submit an academic alert. Academic alerts are not punitive. The goal is to provide you with support and resources to support your success. They act as an important check-in point and, if you receive an academic alert, you will receive an email to your UNH email address. It is strongly recommended that you meet with a professional advisor and connect with your instructor to discuss the reason for the alert.

Accommodations for Disability

The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with the Student Accessibility Services (SAS) office. The Student Accessibility Coordinator at UNHM is Kerrie Shapiro. Please reach out to the SAS office via email at sas.office@unh.edu for registration information and disability related questions.

Academic Integrity policy

The Biology Program at UNH Manchester will strictly adhere to the University policy on academic integrity, as published in the UNH Student Rights, Rules, and Responsibilities Handbook (<https://catalog.unh.edu/srrr/student-policies-regulations/academic-integrity/>) By turning in any piece of work in this course, you declare that you have read and understand the policy, and that you did not engage in any form of academic dishonesty as defined in the Handbook.

Plagiarism can take many forms, such as: submitting someone else's work – in whole or in part – as your own; collaborating on answers for individual assignments or allowing your own work to be used by another student; copying information from a web site or other text without proper documentation; buying a pre-written paper or lab report.

Cheating is mainly concerned with copying on exams or in lab, bringing crib notes into an in-person exam or referring to notes, the textbook, or any prohibited device such as a programmable calculator, tablet, or cell phone during an exam. All electronic devices must be turned off and put away for the duration of an in-person exam. Ear buds are not permitted.

For online exams, you will be given instructions about which materials are and are not permitted to be used. You will be asked to digitally sign an Academic Honesty statement before beginning any exam agreeing to follow all exam policies.

Posting any portion of faculty-created materials such as homework assignments or exam questions to "tutoring" or "study" websites is a serious violation of the Academic Honesty policy of the University. Any instances of this form of cheating will be brought directly to the department chair and dean's office.

Any instances of cheating or plagiarism will result in consequences that can range from a failing grade on the assignment for all students involved to dismissal from the University, as defined in the UNH Student Rights, Rules, and Responsibilities Handbook.

Referral Resources for Students

Library

The UNH Manchester librarians are available to assist you with the research process. Visit the library's website at <https://cps.unh.edu/library> to learn about library services and to search for reliable academic sources. You can contact the library at 603-641-4173 or at unhm.library@unh.edu.

The links below guide you to useful online library resources:

- Make a **Research Appointment** with a librarian: <https://libraryguides.unh.edu/remotearchive/researchhelp>
- Use the **Library Search Box** to find information: https://libraryguides.unh.edu/librarysearchbox_unhmanchester
- Reserve a **Study Room**: <https://cps.unh.edu/library/support-services>
- Discover resources for **Citing Sources**: <https://libraryguides.unh.edu/unhmcitingsources>
- Learn strategies for **Evaluating Sources**: <https://libraryguides.unh.edu/ENGL401UNHManchester/evaluatingresources>.

Center for Academic Enrichment

The Center for Academic Enrichment (CAE) professionals and peers are available to support all UNH Manchester students in maximizing their learning potential through individual in-person and online tutoring, in-class workshops, and study groups in math, writing, course content, study skills, time management, and personal statements. All students registered
Syllabus last reviewed 1/19/25

for UNH Manchester courses are entitled to one hour of individual tutoring, per course, per week. Appointments are available at <https://caetutor.unh.edu>; for more information, contact the CAE at (603) 641-4113, or unhm.cae@unh.edu.

Mental Health and Wellness

In partnership with The Mental Health Center of Greater Manchester, UNH Manchester offers free mental health sessions for students. Students can schedule virtual counseling sessions by emailing unhm.advising@unh.edu. Counselors will be available virtually on Monday, Tuesday, and Thursday from 9am-5pm. The National Suicide Prevention Lifeline provides 24/7, free and confidential support via phone or chat for people in distress, resources for you or your loved ones, and best practices for professionals. Call (800) 273-TALK (8255).

Confidentiality and Mandatory Reporting of Sexual Violence or Harassment

The University of New Hampshire and its faculty are committed to assuring a safe and productive educational environment for all students and for the university as a whole. To this end, the university requires faculty members to report to the university's [Title IX Coordinator](#) (Bo Zaryckyj, Bo.Zaryckyj@unh.edu, 603-862-2930/1527 TTY) or to the UNH Manchester/CPS Title IX Deputy Intake Coordinator (Lisa Enright, lisa.enright@unh.edu 603-641-4336, Room 439) any incidents of sexual violence and harassment shared by students.

If you wish to speak to a confidential support service provider who does not have this reporting responsibility because their discussions with clients are subject to legal privilege, you can contact the [SHARPP Center for Interpersonal Violence Awareness, Prevention, and Advocacy](#) at (603) 862-7233/TTY (800) 735-2964. For more information about what happens when you report, how the university treats your information once a report is made to the Title IX Coordinator, your rights and reporting options at UNH (including anonymous reporting options) please visit [student reporting options](#). [The uSafeUS app](#) is also available for students to keep reporting options and resources easily accessible on their phones.

Help us improve our campus and community climate. If you have observed or experienced an incident of bias, discrimination or harassment, please report the incident by contacting the Civil Rights & Equity Office at UNH.civilrights@unh.edu or TEL # (603) 862-2930 voice/ (603) 862-1527 TTY / 7-1-1 Relay NH, or [visit the CREO website](#). Anonymous reports may be submitted.

Confidential Support Resources for UNH Manchester:

- SHARPP Extended Services Coordinator for UNH Manchester- room 417. Available in person Mondays 9 am to 4- pm and by Zoom appointment year-round M-F.
- YWCA, NH – 603-668-2299(24hour), 72 Concord St. Manchester, NH
- The Mental Health Center of Greater Manchester: On campus mental health counselors are available by appointment during the academic year. Located in room 426.
- 24 Hour NH Sexual Violence Hotline: 1-800-277-5570
- 24 Hour NH Domestic Violence Hotline: 1-866-644-3574

Food Pantry

The UNH Manchester campus food pantry has non-perishable food items for students in room 437.

Course Schedule

Week 1: Jan. 22nd, 23rd

- **Lecture:**
 - Wednesday: Introduction, review PhysioEx access; start Endocrine system
- **Lab:**
 - Endocrine System Physiology (virtual, no face-to-face lab meeting)

Assignments:

- **Complete introduction assignment**
- **Endocrine System Physiology Lab PDF (virtual lab)**

Week 2: Jan. 27th, 29th, 30th

- **Lecture:**
 - Monday: Finish Endocrine System
 - Wednesday: Start Cardiovascular System 1: The Blood
- **Lab:**
 - Blood activities

Assignments:

- **Mastering A&P: Endocrine**
- **Review for lab quiz on the blood**
- **Virtual Blood typing activity**

Week 3: Feb. 3rd, 5th, 6th

- **Lecture:**
 - Monday: Finish Cardiovascular System 1: The Blood)
 - Wednesday: Start Cardiovascular System 2: The Heart
- **Lab:**
 - Quiz on the blood
 - Anatomy of the Heart; Introduction to the Vessels of the Human Body

Assignments:

- **Mastering A&P: Blood**
- **Review for quiz on the heart**
- **Start reviewing vessels**
- **Cardiovascular Physiology Lab PDF (virtual lab)**

Week 4: Feb. 10th, 12th, 13th

- **Lecture:**
 - Monday: Finish Cardiovascular System 2: The Heart
 - Wednesday: Quiz on the heart (lab material); Review for Exam 1
- **Lab:**
 - Exam 1: Endocrine, Blood, Heart

Assignments:

- **Mastering A&P: Heart (due before exam 1)**
- **Continue reviewing vessels for practical**

Week 5: Feb. 17th, 19th, 20th

- **Lecture:**
 - Monday: start Cardiovascular System 3: The Vessels
 - Wednesday: finish Cardiovascular System 3: The Vessels
- **Lab:**
 - Vessel practical

Assignments:

- **Mastering A&P: Vessels**

Week 6: Feb. 24th, 26th, 27th

- **Lecture:**
 - Monday: Start Lymphatic System & Immunity
 - Wednesday: Finish Lymphatic System & Immunity
- **Lab:**
 - No meeting

Assignments:

- **Mastering A&P: Lymphatic**

Week 7: Mar. 3rd, 5th, 6th

- **Lecture:**
 - Monday: Start Respiratory System
 - Wednesday: Finish Respiratory System
- **Lab:**
 - Anatomy of the Lymphatic System
 - Immune system video
 - Anatomy of the Respiratory System
 - Respiratory Physiology activities

Assignments:

- **Mastering A&P: Respiratory**
- **Review for Lymphatic anatomy and Respiratory anatomy/physiology quizzes**
- **Immunology virtual activity**
- **Respiratory Mechanics lab PDF (virtual lab)**

Week 8: Mar. 10th, 12th, 13th

- **Lecture:**
 - Monday: Review for Exam 2 (Vessels, Lymphatic, Respiratory)
 - Wednesday: Quizzes on lymphatic anatomy & respiratory anatomy/physiology (lab material)
- **Lab:**
 - Exam 2 (Vessels, Lymphatic, Respiratory)

Assignments:

- **No new assignments!**

SPRING BREAK, March 17th -21st

Week 9: Mar. 24th, 26th, 27th

- **Lecture:**
 - Monday: Start Digestive System
 - Wednesday: Finish Digestive System
- **Lab:**
 - Anatomy of the digestive system
 - Digestive physiology activities

Assignments:

- **Mastering A&P: Digestive**
- **Review for quiz on digestive anatomy & physiology**
- **Chemical & Physical Processes of Digestion PDF (virtual lab)**

Week 10: Mar. 31st, Apr. 2nd, 3rd

- **Lecture:**
 - Monday: Start Metabolism, Nutrition & Energetics
 - Wednesday: Finish Metabolism, Nutrition & Energetics
- **Lab:**
 - No meeting

Assignments:

- **Mastering A&P: Metabolism**
- **Chemical & Physical Processes of Digestion lab PDF**

Week 11: Apr. 7th, 9th, 10th

- **Lecture:**
 - Monday: Quiz on digestive anatomy & physiology (lab material)
 - Wednesday: Review for Exam 3
- **Lab:**
 - Exam 3 (Digestive, Metabolism)

Assignments:

- **No new assignments!**

Week 12: Apr. 14th, 16th, 17th

- **Lecture:**
 - Monday: Start Urinary System
 - Wednesday: Finish Urinary System
- **Lab:**
 - Anatomy of the urinary system
 - Urinalysis

Assignments:

- **Mastering A&P: Urinary**
- **Review for quiz on urinary anatomy & urinalysis**

Week 13: Apr. 21st, 23rd, 24th

- **Lecture:**
 - Monday: Start Fluid, electrolyte & acid/base balance
 - Wednesday: Quiz on urinary anatomy & urinalysis (lab material); Finish Fluid, electrolyte & acid/base balance
- **Lab:**
 - Catch-up week (we will only meet if we are behind in either class or lab material)

Assignments:

- **Mastering A&P: Fluid, electrolyte and acid/base balance**
- **Acid Base Balance lab PDF (virtual lab)**

Week 14: Apr. 28th, 30th, May 1st

- **Lecture:**
 - Monday: Start Reproductive System
 - Wednesday: Finish Reproductive System
- **Lab:**
 - Anatomy of the Reproductive System
 - Principles of genetics/heredity review and activities

Assignments:

- **Mastering A&P: Reproductive**

Week 15: May 5th

- **Lecture:**
 - Monday: Quiz on reproductive anatomy (lab material); Review for exam 4

Final: May 8th

- **9am-noon:** Exam 4 (Urinary, Fluid/electrolyte/acid-base balance, Reproductive)

NOTE: UNH Manchester observes a reading day (5/6) and the finals period is from 5/7-12. Our last exam will take place during the lab period on 5/8 but I will book a regular classroom for the exam.