Department of Biological Sciences  
BIOSCI 202 — Anatomy and Physiology I  
Section 403  
Fall 2019

Instructor: Rosemary Stelzer, M.S.  
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Office Hrs: Tue 11:30-1:30, Wed 2:00-3:00, or by appointment  
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Lecture meeting days/time: Tues/Thurs. 2:00-3:15

**COURSE DESCRIPTION:**
This course will introduce the structure and function of the human body. We will explore the cellular organization of the body and the integration of those cells into tissues, organs, and systems. Students will engage in a variety of learning activities in the classroom, in laboratory exercises and investigations, and in reflective inquiry to explore and master the concepts in the course.

The expectation is that students are responsible for their own learning and that the instructor's role is to provide context and perspective that will enhance student learning. The assignments and in-class activities are designed to achieve that goal.

**LEARNING OUTCOMES:**

**Course Outcomes:** Upon completion of this course, students will
1. Articulate the anatomical and physiologic features of cells and tissues, including basic genetic and inheritance concepts.  
2. Demonstrate knowledge of biology as it pertains to human body structure, function and homeostasis.
3. Explain the structure and function of organs and body systems.
4. Evaluate the anatomical features of organs and body systems in a laboratory setting and evaluate effective learning strategies.

**Departmental Outcomes relevant to this course:**
1. Apply scientific method to biological questions  
2. Investigate scientific questions  
3. Retrieve scientific information  
4. Synthesize, integrate and communicate scientific information  
5. Describe/apply biological information and concepts
REQUIRED MEDIA:
The following is required for the course and used throughout the semester.

The Textbook is used for both background reading and graded components of the course. The text is customized for UWM so it MUST be purchased through eCampus. The text is an electronic text which is accessed by a unique access code given by eCampus upon order. Hard copies of the textbook cannot be substituted for the electronic version of the text. This electronic textbook will be used for both semesters of Anatomy and Physiology (Bio. 202 and 203).


In case of financial hardship regarding access to and acquisition of course materials, please consult with your instructor as soon as possible.

NOTE: All lecture announcements, updates, and assignments require access to and use of UWM's Canvas web site. If you need help with any of the functions, please view the student help files or check with the UWM Help Desk (229-4040 or help@uwm.edu).

If you have issues related to internet access and computer usage that are NOT technical, please see your instructor as soon as possible. If you are having technical problems, call either the help desk (229-4040 or help@uwm.edu) for UWM-related technical problems; or contact the support desks at the relevant on-line service (contact information is found on the Canvas, or the McGraw-Hill Connect websites).

COURSE REQUIREMENTS:
All readings are due before the first class of the week that they are assigned. Take-home assignments and other written assignments are due as listed in the syllabus. There may be occasional extra assignments of timely readings or out-of-class activities.

Attendance and participation: Attendance at every class is expected, and a portion of the grade is based on in-class activities throughout the semester. In case of any extended absence, students should make appropriate arrangements with the instructor or their advisors. Participation and attendance during lecture will be recorded via in-class question polling/quizzing. In order to have your participation and attendance recorded you must be present and participate in all online polling and quizzing.

Email and Canvas: Students must check their UWM email and Canvas regularly. Frequently, course updates and announcements are communicated through Canvas or email. It is expected that students will check their UWM email at least once a day. It is expected that students will check the course Canvas page a minimum of twice a week; at least once before each of the week’s two class meeting times.

Communication policies:
You may contact your instructor outside of class via email, or phone.
• Please use email as your first point of contact with any questions or issues related to the course outside of regularly scheduled office hours or lecture. Email is the preferred method of contact because your instructor has frequent access to emails. Phone messages will be checked once per day (or the following Monday if the message was recorded on a weekend or holiday).
• When contacting your instructor via email (or phone), make sure to indicate your lecture section number in the email subject line or during your voicemail. There are multiple sections of 202 this semester, so having this information is a key component to answering promptly.
• Instructors are given 24 hours to answer your emails. If the email is sent Monday-Friday during normal business hours (9:00-5:00) expect that it will probably be answered within a few hours, however, do not expect that it will.
• Emails that are sent during a weekend, holiday, or outside of normal business hours will be answered the next business day sometime between 9:00-5:00 pm.

**Course organization:** The course is organized to align with key learning objectives. Students will demonstrate mastery of these objectives by completing course assignments and exams.

**Time commitment:** For each credit hour earned in the course, students are expected to invest at least 3 hours of work per week in addition to their time in lecture and laboratory sections. For this 4-credit course, students are expected to complete at least 12 hours of outside of class study time per week to meet the learning goals of this course. This follows UWM policies:

> “Study leading to one credit represents an investment of time by the average student of not fewer than 48 hours outside of class for each class contact hour in lectures, for laboratories, examinations, tutorials and recitations, and for preparation and study; or a demonstration by the student of learning equivalent to that established as the expected product of such a period of study.”

(UWM Faculty Document #2838; http://www4.uwm.edu/secu/docs/faculty/2838_Credit_Hour_Policy.pdf)

**Course Components and Weightings:**

<table>
<thead>
<tr>
<th>In-Class Activities/quizing: assessed by both participation and accuracy.</th>
<th>5%</th>
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</thead>
<tbody>
<tr>
<td>Assignments: accessed through McGraw-Hill Connect and Canvas</td>
<td>15%</td>
</tr>
<tr>
<td>Pre-Exam quizzes: accessed through McGraw-Hill Connect</td>
<td>10%</td>
</tr>
</tbody>
</table>
| Lecture Exams  
  • Exam 1  
  • Exam 2  
  • Exam 3  
  • Exam 4  
  • Final Exam = 6% | 30% |
| Laboratory Component | 40% |
| Total | 100% |
Grades are based on successful completion of all components in the course.

- Weighted grades are calculated to determine the final grade.
- Students must complete all requirements to receive a comprehensive grade.
- All work in the lecture and laboratory sections must be the student’s own work, except when students are assigned or given permission to work in groups.
- Policies on group collaborations are posted on the course Canvas website.

Extra credit work is not accepted; this means that material that is not assigned as a part of the course cannot substitute for work that is assigned. Students in need of additional assistance or accommodations should contact the instructor as soon as possible.

**Incompletes.** A notation of "incomplete" may be given temporarily as a final grade to a student who has performed successfully in the course, but who, because of illness or other unusual and documented cause beyond the student’s control, has been unable to take or complete some limited amount of the term's coursework. [http://www4.uwm.edu/secu/docs/other/S31.pdf](http://www4.uwm.edu/secu/docs/other/S31.pdf)

**Course Grading Scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
</tr>
<tr>
<td>A-</td>
<td>90 - 92.99</td>
</tr>
<tr>
<td>B+</td>
<td>87 - 89.99</td>
</tr>
<tr>
<td>B</td>
<td>83 - 86.99</td>
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<tr>
<td>B-</td>
<td>80 - 82.99</td>
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<tr>
<td>C+</td>
<td>77 - 79.99</td>
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<td>C</td>
<td>73 - 76.99</td>
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<tr>
<td>C-</td>
<td>70 - 72.99</td>
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<td>D+</td>
<td>67 - 69.99</td>
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<tr>
<td>D</td>
<td>63 - 66.99</td>
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<tr>
<td>D-</td>
<td>60 - 62.99</td>
</tr>
<tr>
<td>F</td>
<td>0 - 59.99</td>
</tr>
</tbody>
</table>

Remember that the grades from various parts of the course are weighted, so they figure into the course average in different ways. (See weighted components above).

Grades are never rounded. As there will always be a cutoff to all percentage values of a certain letter grade. Please do not ask that your final grade be rounded-up no matter how small you may think the percentage difference to the next grade in the scale. Ex: If your final average is 79.97%, your letter grade is a C+.

**Canvas Grade book:**

Canvas is programmed to maintain a running estimate of your total course grade. Look in the "final grade" column. This is an estimate only, and it will change as more assignments are added.
This estimate does not tell you what your final grade **will** be, but only the approximate level of your performance in the course up to that point. In the end, the final grade depends on the score that you earn as the values from all areas of the course are added.

From time to time revisions must be made to grades stored in the Canvas grade book. Revisions are done in case of inputting errors, downloading errors, errors in weighting components of the course, testing center errors etc. If there is a revision to a grade found listed in Canvas, the instructor will communicate why the change was necessary.

All instructors in the course will maintain the most accurate grade book in Canvas as possible. Corrected errors to grades found in the Canvas grade book are not a valid reason to argue for a grade entered erroneously or a late course drop.

**Special needs and requests:** Students with special needs and requests for accommodations in the classroom (or other needs that affect their ability to complete their coursework successfully) should contact their instructors, the Accessibility Resource Center (http://www4.uwm.edu/sac/) or the Office of Student Life (http://www4.uwm.edu/dos/). Students with pressing issues of physical or emotional health and well-being should contact the Norris Center (http://www4.uwm.edu/norris/).

**Student Accommodations:** Students with disabilities must contact the instructor well ahead of time if special accommodations are needed for coursework (assignments, assessments etc.). A valid student Eligibility Letter/Student Accommodation Plan (VISA) issued by the UWM accessibility resource center must be provided to the instructor. If the student informs the instructor that they need accommodations, and do not present the instructor with a valid student Eligibility Letter/Student Accommodation Plan (VISA), they will not be allowed the accommodation. Students must update their Eligibility Letter/Student Accommodation Plans (VISA) EVERY semester.

i. Accommodations require at least one week's notice.
ii. Some will require more planning and negotiation of the specifics of the assignment.
   A. Be sure to allow sufficient time.
   B. It is the student’s responsibility to contact the instructor for their accommodations, not the instructor’s responsibility to remind the student of the accommodation.
   C. If a student has the accommodation of extra time on an exam, or minimally distracting environment listed on their Eligibility Letter/Student Accommodation Plan (VISA), they must coordinate the alternative time with the ARC via online communication. These arrangements must be completed at least 5 business days prior to the exam listed on the syllabus in order to complete the exam at the ARC testing center. Please contact the ARC directly for specific policies related to scheduling alternative exam times.

**Academic Integrity:**
All work submitted to fulfill the academic requirements in the lecture and laboratory sections must be the student's own, except when students are assigned or given permission to work in groups. In these cases, all the work submitted by the group must be original and written for this assignment by the students in this group. Policies on group collaborations will be communicated on the Canvas course site when necessary.
UWM Policies on academic integrity and misconduct may be reviewed at: http://www.uwm.edu/Dept/Acad_Aff/policy/academicmisconduct.cfm. Academic misconduct in any part of the course may result in a grade of F for the whole course.

Safety Policies: Lab
The laboratory component of the course may require special instruction in safety procedures for working with equipment and materials. Students will only be allowed to participate in the laboratory activity when the section's laboratory instructor is satisfied that students have learned and are following appropriate safety procedures.

Course Assignments Policies
- Due dates for course work are listed in the syllabus.
  - Unless due dates are changed by mutual agreement in class, the work is due as indicated. If due dates are changed, you will find an announcement on Canvas and/or an announcement will be made in class by the instructor.
  - Online assignments are accessed through McGraw-Hill’s Connect learning platform (listed as SmartBook assignments) or through Canvas quizzes. These assignments must be submitted by the due date found in the syllabus.
    Students must register for Connect with their textbook access code, purchased through eCmapus. Instructions for registration/use of Connect are presented during lecture and will be posted on Canvas.
  - As all assignment due dates are clearly marked in the syllabus, no late assignments will be accepted. The only exception granted for late work is an emergency situation. For emergency situations, the student must submit, via email, documentation to the instructor within 24 hours of the emergency event. It is the instructor’s decision to allow that student to submit a late assignment no matter what.
  - Depending on the situation, a penalty for late assignments may be added. The penalty will be assessed by the instructor depending on the situation.

For questions and concerns about assignment due dates, please make an appointment, call, or email Ms. Stelzer.

Pre-exam Quizzes: Four pre-exam quizzes are assigned during the course of the semester. These pre-exam quizzes are completed through the McGraw-Hill Connect learning tool. These quizzes are used to help students review some of the material, get exposure to question format, and practice test taking strategies prior to the exam. Students are given one week to complete these quizzes. There are no extensions to the quizzes unless the student has a documented emergency take place in which they would be unavailable to complete the quiz the entire week.

As the due dates for the pre-exam quizzes are clearly marked on the syllabus, no late submissions are accepted. If you have a valid excuse, you must submit documentation stating that you were incapacitated the entire week the quiz was open in order to make-up the pre-exam quiz for credit.

Course Exam Policies
Exams are given on the day as noted in the syllabus, unless the instructor makes a written documented change to this date. The change will be reflected as an announcement on Canvas.

The following policies apply to make-up exams:

- The student must contact his/her instructor (within 24 hours) when an absence occurs and the decision to be allowed to make-up an exam is at the sole discretion of the instructor.
- Written documentation for emergency situations (example: doctor’s note) will be required to make-up an exam. This must be provided BEFORE being allowed to complete the quiz/exam.
- Only 1 opportunity will be given to make up an exam. You are expected to arrange a make-up session with your instructor within one week of the missed exam.
- If a scantron is used on an exam, your grade will be based on the scantron. You will not get credit for any transfer mistakes you make from the exam packet to the scantron.
- If you are late to an exam, you will not be allowed the full amount of time to complete the assessment. If you show up after an assessment have been collected, you will not be allowed to complete the assessment.

Portable Electronic Devices

Portable media players and recorders are prohibited, except for students who require them for documented disabilities. Use of cellular phones, PDAs, and related electronic devices during exams will constitute a presumptive case of academic dishonesty. Students may use laptop computers, tablets, PDAs and so on for viewing the pre-posted lecture presentation, for making notes and annotations during the lectures, for participating in on-line chats related to the lecture material, and for on-line classroom response questions.

Other Relevant UWM Campus Policies

Safety Policies: Weapons on Campus

Current Wisconsin “concealed carry” law and the Second Amendment to the US Constitution notwithstanding, we have been informed that no weapons are permitted in any building on the UWM campus. For more information, please consult the Concealed Carry Memorandum and FAQs issued by the Office of General Council for the UW System Administration.


Other Applicable University Policies and Procedures

This course will be conducted in accordance with University of Wisconsin–Milwaukee policies on discriminatory conduct, sexual harassment, grade appeal procedures, military leave, religious observances, and general complaints.

Students may review these policies and procedures at

http://www4.uwm.edu/sexualharassment/documents/
http://www4.uwm.edu/academics/military.cfm
https://www4.uwm.edu/secu/docs/other/S1.5.htm
https://www4.uwm.edu/current_students/records_grades/grades.cfm.

These policies apply to all participants in this class — students, instructors of record, and teaching assistants.
UNIT 1 — THE ORGANIZATION OF THE BODY

Week 1: Sept. 3-6
Essential Question: What is anatomy and how do we understand it?
Readings: Chapter 1
Lecture: Introduction to A&P I, Hierarchies, patterns of organization, Terminology and Body plan, homeostasis

Assignment: SmartBook Chapter 1: Due Sept. 20
** All SmartBook assignments are accessed through McGraw-Hill Connect
Assignment: Negative feedback, Accessed through Canvas Quizzes: Due Sept. 20

Week 2: Sept. 9-13
Essential Question: How do cells work?
Readings: Chapter 3, Sections 3.1, 3.3-3.9
Lecture: Organization of the body, Cell membrane, Transport, cellular organelles, Gene Expression

Assignment: SmartBook Chapter 3: Due Sept. 20
**all SmartBook assignments are accessed through McGraw-Hill Connect
Assignment: Protein Synthesis, accessed through Canvas Quizzes Due by Sept. 20

***Sept. 16—Last Day for Adding Full-Term Classes***

Week 3: Sept. 16-20
Essential Question: How do dividing cells preserve and transmit their information and features?
Read: Chapter 3, section 3.10; Chapter 29, section 29.7: pages 1110-1117 up to “Genetic disorders” ONLY
Lecture: Biologic variation and continuity; the cell cycle, Heredity.

Assignment: SmartBook Chapter 29: Due Sept. 20

***Sept. 30-- Last day to withdraw without record***
**Week 4: Sept. 23-27**

**Essential Question:** What is a tissue?
**Read:** Chapter 4
**Lecture:** Tissue classes and functions.

**Assignment:** SmartBook Chapter 4: Due Sept. 27
Pre-Exam Quiz #1 Covering material from Chapters 1, 2, 3, 29, and 4: Due by Sept. 30
**Pre-Exam quizzes are completed through McGraw-Hill Connect**

**UNIT 2----Support and Movement**

**Week 5: Sept. 30- Oct. 4**

**Essential Question:** What is skin and why is it so important?
**Read:** Chapter 5—Integumentary System
**Lecture:** Integument, skin color, glands

**EXAM #1:** Unit 1, Chapters 1, 2, 3, 29, and 4. Taken during lecture Oct. 1
**Assignment:** SmartBook Chapter 5: Due Oct. 4

**Week 6: Oct. 7-11**

**Essential Question:** How is the living skeleton integrated into the body's other systems?
**Read:** Chapter 6: Skeletal System Bones and Bone Tissue
**Lecture:** Organization of the skeleton; physiology of bone maintenance, growth, and repair.

**Assignment:** SmartBook Chap. 6 Bones and bone Tissue: Due Oct. 11
**Assignment:** Calcium Homeostasis completed through Canvas quizzes: Due Oct. 11

**Week 7: Oct. 14-18**

**Essential Question:** What features of bones allow the skeleton to function?
**Read:** Chapter 7—skeletal system: Gross Anatomy
**Lecture:** Features of bones.

**Assignment:** SmartBook Chap. 7 Skeletal System: Due Oct. 18

**Week 8: Oct. 21-25**

**Essential Question:** How does the skeleton move?
**Read:** Chapter 8—Joints and Movement
**In-Class:** Joints and stability
**Lecture:** Classifications and Movements of Joints
Exam #2: Unit 2, Chapters 5, 6, 7, and 8. Exam taken during lecture Oct. 24

Pre-Exam Quiz #2 Covering material from chapters 5, 6, 7, and 8: Due by Oct. 23
**All Pre-exam quizzes are completed through McGraw-Hill Connect

Week 9: Oct. 28- Nov. 1
Essential Question: How do muscles produce movement?
Read: Chapter 10--Muscular System: Gross Anatomy; Chapter 9: Muscular system Histology and Physiology
Lecture: Muscle shape, size, and orientation; origins and insertions. Skeletal muscle physiology, Energy sources, oxygen debt.

SmartBook Chap. 9 Muscle Histology and Physiology: Due Nov. 1

***Nov. 10—Last Day to Withdraw With ‘W’ on Transcript***

Week 10: Nov. 4-8
Essential Question: What are nerves, and how do they work?
Read: Chapter 11—Functional organization of Nervous Tissue
Lecture: Nervous system cells, chemical communication, synapses.

SmartBook Chap. 11 Functional Organization of Nervous Tissue: Due Nov. 8

Week 11: Nov. 11-15
Essential Question: How does the spinal cord process and deliver information?
Read: Chapter 12: Spinal Cord and Spinal Nerves
Lecture: Spinal cord anatomy, spinal nerves, plexuses

SmartBook Chapter 12 Spinal cord and Spinal Nerves: Nov. 15

Week 12: Nov. 18-22
Essential Question: What features allow the brain to function?
Read: Chapter 13---Brain and Cranial Nerves
Lecture: Brain anatomy/physiology, Cranial nerves.

Exam #3: Chapters 9, 10, 11, and 12. Taken during Lecture, Nov. 19

Pre-Exam Quiz #3 covering material from chapters 9, 10, 11, and 12: Due by Nov. 18
**All Pre-exam quizzes are completed through McGraw-Hill Connect
**Week 13: Nov. 25-29**

Essential Question: What features allow the brain to function?
Read: **Chapter 13**---Brain and Cranial Nerves, **Chapter 14**: Integration Nervous system Functions
Lecture: Brain anatomy/physiology, Cranial nerves. Classification and histological features of receptors; the interpretation of the signals, and pathways for receptor output, ascending and descending spinal tract pathways.

**SmartBook Chap. 13 Brain and Cranial Nerves: Nov. 29**

*Thanksgiving break Nov. 27-Dec. 1---No classes meet*

**Week 14: Dec. 2-6**

Essential Questions: Why are the senses important in maintaining homeostasis?
Read: **Chapter 14**: Integration of the Nervous system Functions and **Chapter 15**: The Special Senses
Lecture: General and Special senses, Classification and histological features of receptors; the interpretation of the signals, and pathways for receptor output, ascending and descending spinal tract pathways.

**SmartBook Chap. 14 Integration of Nervous System Functions: Due Dec. 6**
**SmartBook Chap. 15 The special senses Due Dec. 6**

**Week 15: Dec. 9-13**

Essential Question: What are the functions of the Autonomic Nervous system?
Read: Chapter 16: The Autonomic Nervous system
Lecture: The special senses continued and Autonomic Nervous System anatomy and physiology

**SmartBook Chap. 16 The Autonomic Nervous System Due Dec. 13**

Pre-Exam Quiz #4 covering material from chapters 13, 14, 15, and 16: Due by Dec. 11

**All Pre-exam quizzes are completed through McGraw-Hill Connect**

Exam #4: Chapters 13, 14, 15, and 16. Taken during Lecture Dec. 12

****A Cumulative Assessment (Final Exam) will be taken online via Connect: Due by Dec. 20

Class will not meet during the officially scheduled in-class exam time.

****Friday Dec. 13---Study Day---No classes meet.****