

BIO 168 – Anatomy and Physiology I

Sections 4336, 4337

Fall 2015

Wake Technical Community College

Natural Sciences

Mathematics and Sciences Division

Instructor Information

Instructor: Dr. Dean Furbish

Office: 203 AHB (Allied Health Building) Health Sciences Campus

Office hours by appointment: Mon/Wed 11-12 PM and Tue 11-2 PM

Email: drfurbish@waketech.edu (preferred means of communication)

Phone: 919-747-0040

Required Texts

You must have access to the textbook (online ebook, physical hardcopy textbook or loose leaf) and the accompanying Connect subscription:

1. Connect Plus (2 semester Access Card ebook/LearnSmart/APR & PhilS Online Access), McKinley, et al., 2nd Edition, McGraw-Hill
2. Alternative formats to the above if you wish:
 - a) **Hard-back Textbook:** Anatomy & Physiology: An Integrative Approach (Hardback), McKinley, et al., 2nd Edition, McGraw-Hill
 - b) **Loose-leaf Textbook:** Anatomy & Physiology: An Integrative Approach, McKinley, O'Loughlin, and Bidle, 2nd Edition, McGraw Hill
 - c) **Connect Access Card only:** Connect Access Card with LearnSmart, APR & PhilS Online Access for 2nd edition (*important: NO ebook is included), McGraw Hill

Required Material

Bring note-taking material and textbook to both lecture and lab. Although not required, a voice recorder for lecture and lab is highly advised. Also, the student needs to purchase Scantrons to be used on all lecture tests and pre-lecture (participation) quizzes.

Credit hours

4 semester hours (3 hours lecture per week and 3 hours lab per week)

Prerequisites

TAKE 1 GROUP:

TAKE ENG-090 RED-090 CHM-090;

TAKE ENG-090 RED-090 CHM-092;

TAKE ENG-090 RED-090 CHM-130;

TAKE ENG-090 RED-090 CHM-151;

TAKE ENG-090 RED-090 CHM-152;

TAKE ENG-090 RED-090 CHM-251;

TAKE ENG-090 RED-090 BIO-111;
TAKE ENG-111 CHM-090;
TAKE ENG-111 CHM-092;
TAKE ENG-111 CHM-130;
TAKE ENG-111 CHM-151;
TAKE ENG-111 CHM-152;
TAKE ENG-111 CHM-251;
TAKE ENG-111 BIO-111;

STUDENTS WHO HAVE NOT MET THE PREREQUISITE(S) AND/OR
COREQUISITE(S) MAY NOT REMAIN REGISTERED FOR THIS COURSE.

Corerequisites

None

Withdrawals

Students may officially withdraw from the course and receive a grade of 'W' up to the 60% point in the semester. To officially withdraw, students must complete and submit a withdrawal form to the Admissions and Registration Office by **October 26, 2015**. Failure to complete this procedure by the given date will result in an 'F' for the semester.

Withdrawal on or before October 26, 2015 will result in a "W" on your transcript.
Withdrawal after October 26, 2015 will result in a "WF" on your transcript if you
have an F in the course when you withdraw. A "WF" is treated as an "F" in
calculating your grade point average (gpa).

Course Description

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

Attendance/Withdraw Policy:

"See Department Policy pages" (below)

Blackboard

You may access the blackboard site for this class at <https://dist-ed.waketech.edu/webapps/login/>

COURSE LECTURE OUTLINE:

Week	Topic	Chapter
1	Nature of Science; Science of Anatomy and Physiology	1
2	Chemistry; Biochemistry	2
3	Cellular Energetics, Biochemistry (con't); Cells: Membrane and Transport; Organelle Function	3
4	Cells (con't): Nucleus and Function; Cell Growth, Reproduction	4
5	Cells (con't): DNA and Protein Synthesis; Tissues	4
6	Test 1: Body, Chemistry, Cell Tissues	1-4 5
7	Integumentary System	6
8	Bones and Skeletal Tissue	7, 8
9	Gross Skeletal Anatomy, Joints	8, 9
10	Muscle Tissue and Function	10
11	Muscle Function at Gross Level	10, 11
12	Test 2: Tissues, Skin, Bones, Muscle; October 26th is the last day to withdraw with a W. Nervous Tissue and Physiology	5-11 12
13	Nervous System: Brain	13
14	Nervous System: Spinal Cord, Nerves; Autonomic Nervous System	14, 15
15	Special Senses	16
16	Test 3: Nervous System, Special Senses Final Comprehensive Exam	12-16 1-16

There will be a comprehensive final exam administered on the last class day of the semester.

Lecture Schedule is subject to revision. Changes will be announced in class. The schedule and content for the course are tentative and may be changed at the instructor's discretion.

Dates for each of the unit lecture exams will be announced in class. It is the responsibility of each student to anticipate and know the dates of these exams.

COURSE GOALS:

1. Develop a vocabulary of appropriate terminology to effectively communicate information related to anatomy and physiology.
2. Recognize the anatomical structures and explain the physiological functions of body systems.
3. Recognize and explain the principle of homeostasis and the use of feedback loops to control physiological systems in the human body.
4. Use anatomical knowledge to predict physiological consequences, and use knowledge of function to predict the features of anatomical structures.
5. Recognize and explain the interrelationships within and between anatomical and physiological systems of the human body.
6. Synthesize ideas to make a connection between knowledge of anatomy and physiology and real-world situations, including healthy lifestyle decisions and homeostatic imbalances.
7. Demonstrate laboratory procedures used to examine anatomical structures and evaluate physiological functions of each organ system.
8. Interpret graphs of anatomical and physiological data.

COURSE OBJECTIVES:

A complete **Course Student Learning Objectives** document listing each student learning objective is available on Blackboard under Course Information. For those students interested in a course outline, review outline, study outline – this is it!

Student Rights and Responsibilities

Student Code: "Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and conduct. The purpose of the Student Code of Conduct (the Student Code) is not to restrict student freedom but to protect the rights of all students in their academic pursuits." See the student handbook (opens in a new window <http://handbook.waketech.edu/handbook.php>) for the explanation of prohibited conduct. Disciplinary penalties for violations of the Student Code include admonition, reprimand, and interim suspension from a class until a student meets with the Dean of Students or designee.

Student Concerns

For a student complaint or grievance, the department follows the guidelines in the Student Handbook.

- ***The first step*** for resolving the situation is generally for the student to communicate concerns or complaints *with the instructor, outside of class time*
- As a follow up step, the student can contact the Department Head or Associate Department Head (see below for contact information)
- If the matter remains unresolved, the student would contact the Dean of the Mathematics and Science Division, prepared to explain the particular area of disagreement with the decision of the instructor and Department or Associate Department Head

Contact information is also available at our department website (opens in a new window <http://mathandscience.waketech.edu/index.php>)

Administrator	Title	Office	Email	Phone
	Instructor	Students are encouraged to meet with your instructor during office hours or make an appointment at a mutually agreeable time	Contact information is provided in the syllabus and in the Course page in Blackboard.	Contact information is provided in the syllabus and in the Course page in Blackboard.
Dr. Barbara Coles	Associate Department Head	Health Sciences Campus, AHB 204	bacoles@waketech.edu	919-747-0048
Dr. Jackie Swanik	Associate Department Head	North Campus, BB 440	jtswanik@waketech.edu	919-532-5612
Dr. Danny Monroe	Department Head	Main Campus, TE 239A	dsmonroe@waketech.edu	919-866-5587
Sharon Welker	Dean of Math and Sciences	Main Campus, TE 217	sfwelker@waketech.edu	919-866-5611

- Failing to turn in a quiz or exam immediately after its completion
- Tampering with the grading, or changing any information on a graded evaluation
- Allowing someone to copy another person's work
- Working with others in completing take-home or out-of-class quizzes, tests, exams, or individual assignments unless the instructor specifically authorizes collaborative work

Plagiarism

Plagiarism is stealing or passing off as one's own ideas or words of another person, copying the language, data or specific ideas of another person and representing that work as one's own. When the student presents the words or ideas of another person in his/her written assignments, he/she must fully acknowledge those sources using the method described by the instructor. Plagiarism includes, but is not limited to:

- Having another person write a paper and submitting it as one's own
- Copying papers or other information, all or in part, from other persons or sources, including the Internet
- Allowing another person to copy one's work
- Turning in a paper that has been used for another class, even if it is the student's own work, without prior permission or acknowledgement.

Note: Collaboration and sharing information are characteristics of academic communities. These become violations when they involve dishonesty. Instructors should establish clear expectations about collaborations. Students should seek clarification, when in doubt, by contacting the instructor in a timely manner, well before the due date for an assignment, to ask questions about what constitutes cheating or plagiarism.

Inclement Weather Policy

For announcements concerning closings or delays, students should check an official college source: Wake Tech switchboard recording at 866-5000 or the Wake Tech website: www.waketech.edu

The college also shares announcements with the media. It's a good idea to check weather closing announcements on two or more stations to ensure accuracy!

Cancelled Classes

Wake Tech is required to provide alternate instruction when a class is cancelled by the instructor or by the College. Natural Sciences instructors will post replacement assignments to Blackboard and discuss the make-up plan for class. If the cancellation occurs during a scheduled test or final exam, students should plan and prepare to take the test at the next scheduled meeting of the class. Students should contact the instructor with questions regarding the alternate instructional plan for cancelled classes.

TV Stations	Radio Stations
News14Carolina (cable)	WBBB 96.1FM
WLFL-TV22	WDCG 105.1 FM
WNCN-TV 17	WFXC 104.3 FM
WRAZ-TV 50	WNNL103.9 FM
WRAL-TV5	WPTF 680 AM
WRDC-TV28	WQDR 94.7 FM
WTVD-TV11	WQOK 97.5 FM
WUVC-TV40 (Spanish)	WRAL 101.5 FM
	WTKK 106.1 FM
	WKSX 93.9 FM
	WRDU 100.7 FM
	WKIX 102.9 FM
	WYMY 96.9 FM (Spanish)

Grading Policy

The Natural Sciences department uses a 10-point grading scale. Faculty will assign student grades

Letter Grade	Number Grade
A	100-90
B	89.99-80
C	79.99-70
D	69.99-60
F	59.99 and below

according to methods which are professionally acceptable, communicated to everyone in the class, and applied to all students equally. Classes that begin in 0 will follow the pre curriculum grading policy where no Ds are given.

Final Exams

Wake Tech has a final exam period observed on all campuses except for courses offered on the Health Sciences Campus. Students should consult the final exam schedule to determine the exact times when the exam(s) will be given. Students are expected to make arrangements to take the exam at the scheduled time. It is the policy of the Math and Sciences that all students are required to take a final exam.

Academic Honesty Policy

For the complete Academic Honesty Policy, please see the Wake Tech Student Handbook. The Mathematics and Sciences Division expects the highest standards of personal integrity in all academic work and behavior. Effective education depends upon an atmosphere that is conducive to learning and creating such an atmosphere is the responsibility of both students and instructors. The foundation of this environment is based on a mutual commitment to honesty, trust, fairness, respect, and responsibility. This requires students and instructors to subscribe to a high standard of integrity.

In every course taught by an instructor in the Mathematics and Sciences Division, the instructor will provide the *Academic Honesty Policy* to each student electronically. The student will sign his/her name as directed by the instructor verifying the statement that "I have read and understand the policies described in the *Mathematics and Sciences Academic Honesty Policy* and agree to abide by them."

Cheating and plagiarism

Cheating and plagiarism are forms of academic dishonesty and, according to the Student Handbook, can result in institutional disciplinary action, including "loss of academic credit or grade." In keeping with this policy, Mathematics and Sciences instructors may record a grade of "0" on any assignment in which academic dishonesty has occurred. Flagrant or repeat offenses may result in a grade of "F" for the course & loss of right to attend. Note the following:

Cheating

Cheating may be defined as using any materials or resources (other than research documents) that have not been authorized by the instructor to complete an assignment or exam. Any unauthorized activity that confers an unfair advantage upon the student may be considered cheating, and this behavior includes, *but is not limited to*:

- Receiving, giving, or helping another student receive or give any information during a quiz, assignment, or exam, or any individual assignment, or for separate sections of the same course
- Using (or having) unauthorized materials or equipment such as notes, calculators, cell phones, etc.
- Communicating the subject matter or contents of a quiz, test, or exam to another student
- Taking a quiz, test, or exam for another student
- Obtaining quiz, test, or exam questions beforehand

Audit Policy

Audits: Registration (including tuition charges) for courses to be audited is the same as for courses to be taken for credit. Audit courses carry no credit hours and earn no grade points. If a student submits a Request to Audit form to the Registration and Student Records Services Division no later than the last day to add, Departmental approval to audit is not required.

Students who would like to be considered for audit after the last day to add must obtain the signature of the instructor and dean or dean's designee on the Request to Audit form before submitting it to the Registration and Student Records Services Division. Audit requests will not be accepted after the mid-point of the term.

In all cases, students must meet with their instructor and review a departmental Audit Agreement. This includes a signed statement agreeing to adhere to the attendance policy.

Withdrawals

A student who finds it necessary to withdraw must complete a Student Course Withdrawal Form or email their instructor their intent and need to withdraw.

A key faculty responsibility at Wake Technical Community College is the assignment of student grades according to methods which are professionally acceptable, communicated to everyone in the class, and applied to all students equally.

A Grade of W

Students who withdraw or who are withdrawn for any reason, including attendance policy violations, on or before the 60% point are assigned a grade of W.

A Grade of WF

Students who withdraw or who are withdrawn after the 60% point with no legitimate, extenuating circumstances will be assigned a grade of WF. The grade of WF counts the same as an F in the determination of the student's GPA.

A Grade of WP

A grade of WP is given when a student withdraws after the 60% point for a legitimate, extenuating circumstance such as medical reasons, death in the family, change in job schedules (i.e., suddenly required to travel), changes in daycare, no transportation, etc. It is the student's responsibility to justify the extenuating circumstances to the satisfaction of the instructor. The grade of WP counts the same as a W in the determination of the student's GPA.

In accordance with the state refund policy for community colleges, there is no tuition refund allowable after the 10% date of the term, even for withdrawal for any reason other than military deployment or death of the student.

Students enrolled in courses offered at times other than the standard sixteen-week semester and the regular summer term should consult the Curriculum Education Credit Class Schedules booklet to determine the last day to withdraw and receive a grade of "W. "

Medical Leave Protocol

Students requesting to withdraw from classes for medical reasons will be referred to the Vice President of Curriculum Education.

Internet Use

Most of courses in the Natural Sciences department are listed as a web-assisted course. The instructor will utilize the internet and online course tools for communication, assessment, and/or to provide students with material necessary for success in the course. Students are to use class time and computers for academic work, not for personal communication or entertainment.

Attendance Policy

For the full Wake Tech Attendance Policy, see the Wake Tech Student Handbook.

Students and instructors promote the College core values of respect and responsibility when they attend the full class period and are actively engaging in all of the class activities. Arriving to class late, leaving class early, slipping in and out for personal business, etc., are all disruptive to the learning environment not only for the individual, but also for the entire class. Thus it is expected that everyone attend on time and stay for the entire class period.

It is important to recognize that many department classes meet in excess of one hour per day. Thus, a day's absence may result in more than one hour of absence from a scheduled course.

Students anticipating absences should notify their instructor in advance. If prior notification is not possible, the student should contact the instructor immediately upon returning to the College to determine the next course of action.

Students are expected to be in attendance at least 90 percent of all scheduled class hours. In the event that a student's absences in a class exceed 10 percent prior to the last 2 weeks of the semester, and the absences are not justified to the satisfaction of the instructor, the instructor will submit Student Course Withdrawal Form. An absence is defined as missing one-third or more of any regularly scheduled class meeting.

A pattern of tardiness and/or early departure will have consequences. Tardies and early departures will be considered part of students' attendance violations. Tardies and early departures not justified to the satisfaction of the instructor will be equated to absences at a rate of one absence per two tardies and/or early departures.

Accommodating absences due to religious observances WTCC Student Handbook:

It is the student's responsibility to contact the instructor for each course in which work will be missed. The student must provide written notification to the instructor **within the first two weeks** of the semester, identifying the religious observance and date of the planned absence.

Faculty members must provide a suitable accommodation for affected students. Specific accommodations may vary, depending on course content, mode of instruction, and size of class.

Examples of suitable accommodations include but are not limited to:

- Establishing a class policy allowing all students to drop one exam or assignment grade
- Providing an opportunity for a makeup exam or equivalent assignment
- Allowing extra-credit assignments to substitute for missed class work
- And other reasonable accommodations determined by the course instructor.

Students are responsible for missed class content. Students must request and should be provided with any instructional materials given out during their absence.