

**BIO 1006 Clinical Anatomy and Physiology  
(Formerly BIO 121)  
CRN 10931  
Winter 2018**

**Lecture: 9:20 - 10:27am MWF  
156 NFH  
Lab: Tuesdays as enrolled  
206/207 DH**

**Course Syllabus**

Instructor: Dr. Jonathan Yates, **362 DH** Phone: (248) 370-2994 email: yates@oakland.edu  
Office Hours: M/W/F 2:00–3:00pm; and by appointment

**Course Description:**

Basic human anatomy and physiology with clinical emphasis, specifically for pre-nursing students. Lectures are closely tied to laboratory activities. Computer simulations of cadaver dissections are used to teach and test anatomy. Course does not count toward biology majors or minors.

**Prerequisites:**

BIO 1200 (or equivalent)

It is essential that you have already taken Bio 1200 (formerly BIO 111) or its equivalent **prior** to enrolling in this class. Bio 1200 should not be taken concurrently with this course.

**Course learning outcomes:**

1. Use anatomical terminology to **identify and describe** locations of major organs of each system covered. **Demonstrate** knowledge of the organization of the human body.
2. Describe the major anatomical components of each human body system studied, describe briefly their anatomical locations and general structures, and **explain** their physiological functions at both the organ and cellular levels.
1. Explain interrelationships among molecular, cellular, tissue and organ functions in each system.
2. Describe the interdependency and interactions of the body systems covered.
3. Explain contributions of organs and systems to the maintenance of homeostasis.
4. Explain the concept of homeostasis, how it interrelates basic human body functions and life processes.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology

7. Use **critical thinking and scientific problem-solving skills**, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.
8. **Critically analyze** and evaluate relevant case studies or scientific data to identify trends and draw conclusions
9. **Apply** the concepts learned in the lecture to understand and analyze laboratory activities and observations.
10. Ask, answer, and discuss A&P-based material and assignments in pairs or group settings

### **Course Overview:**

- Biology 1006 is a compressed study of the human organism from the anatomical and physiological views. In order to understand how a system works, you must first understand how the structural components are designed and integrated. The material this semester will be presented to further your understanding of the correlation between the structure (**anatomy**) and the function (**physiology**) of the organ systems that exist in the human body.
- Biology 1006 is designed with the intent of educating students interested in careers in the medical professions (nursing, medical school, sports medicine, physical therapy) and allied health fields as well as those who are interested in human form and function. An optimally working physiological system is required for the body to maintain homeostasis. Failure of the system to maintain homeostasis results in the development of pathological conditions and disease. Each section will be summarized by applying the material presented to clinically relevant situations.
- Physiology is not an isolated discipline but relies on others such as chemistry, physics, biochemistry and pharmacology. Basic principles from these areas will be presented and related to the human systems to further your understanding of the material.
- **This is an intensive course that will require hard work** but will culminate in a successful foundation for your beginnings in the study of the health sciences.

### **Self-responsibility and resources for help**

Success in this course requires continual self-evaluation, and actively seeking help when needed (early is best!). Resources available for increasing student success include 1) Supplemental Instruction, 2) Tutoring through the OU Tutoring Center, 3) Attending office hours, and 4) Instructor provided and online learning resources. The best recipe for successful understanding, retention of content, and development of critical thinking skills is to **practice anatomy and physiology daily**. This course is rigorous, typically requiring 3-4 hours/credit hour each week of learning time. This equates to around 12-15 hours/week outside of class; which means you should plan on spending 2 hours on A&P daily. "All-nighters" or studying only on the weekends limits your exposure and retention. Please ask questions during or after class. Early intervention and change to study habits often has very positive results.

Because this course is a fundamental building block for future upper level science courses, **retention and skills development is essential for future success.**

**Required Material: (all materials are available from the OU bookstore)**

- **Holes's Human Anatomy & Physiology 14<sup>th</sup> Edition with Connect access code.** D. Shier, J. Butler, and R. Lewis. McGraw-Hill. ISBN-13: 9780078024290.
  - This text is available through online retailers, the Publisher, and through the Oakland University bookstore. You are responsible for acquiring the text for this class – no extensions to assignment deadlines will be granted due to lack of textbook acquisition.
  - Regardless of how you acquire the textbook, you **must** purchase access to Connect for this textbook in order to complete mandatory homework assignments.
- **BIO 1006 A&P Custom Laboratory Workbook.** S. Bhaskaran. McGraw-Hill Publishing Co. ISBN 9781260400632
- **You must obtain an iClicker student controller or a smart phone iClicker Cloud app and register it with the iClicker site**

**YOU MUST BE REGISTERED AT THE CONNECT SITE TO ACCESS ON-LINE QUIZZ ASSIGNMENTS AND RECEIVE CREDIT FOR COMPLETING THEM→ See links on class moodle site for registering directions. There is a direct link from the class MOODLE site to our CONNECT class site.**

<http://connect.mheducation.com/class/j-yates-bio-1006-winter-2018>

**Technical Skills Required:**

As a student enrolled in this course to be successful it is necessary that you have a moderate level of computer proficiency. Basic trouble shooting and comfort with a web browser are highly suggested skills.

**Required Technology:**

Access to the Internet and a computer with an updated web browser installed.

Tablets and smart phones are not recommended as the sole source of access to the course.

As it is possible that that your computer may crash or that you may lose internet connectivity, it is highly recommended that you have a backup plan in place to enable you to able to access the course from another computer or another location.

It is also highly recommended that you use some backup system for your data storage. Dropbox (<https://www.dropbox.com>; is a free site) or a similar storage mechanism enables you to access your work anywhere.

**Using Moodle and technical assistance:**

Moodle is Oakland University's learning management system (LMS). You will use Moodle to participate in online activities and to progress through the course. You can access Moodle at <http://moodle.oakland.edu> – login there with your university supplied NETID username and password.

For technical issues that you cannot resolve on your own, please contact the E-Learning and Instructional Support office:

- Phone : (248) 805-1625
- Submit a help ticket : <http://www2.oakland.edu/elis/help.cfm?lms=2>

For general course questions (due dates, content, instructions etc.), please CONSULT THE SYLLABUS FIRST. If you still have questions, then contact the instructor.

For technical issues concerning **Connect**:

- Check your computer's compatibility to ensure you can view the study tools. To do this, scroll all the way down to the bottom of any screen on Connect and click on the Troubleshooting link
- Visit the online, 24-hour support center at [www.mhhe.com/support](http://www.mhhe.com/support)
- Call (800) 331-5094

### **Student and Teacher Expectations:**

In this course you can expect the **Instructor** to do the following:

1. Log into and manage the course Connect site daily
2. Review student progress on Connect assignments weekly
3. Respond to emails in a timely fashion (within 24-36 hours)\*
4. Grade and post exam scores to Moodle gradebook within 7 days of exam date
5. Post a current overall 'Grade as of' on Moodle after Winter break
6. Post lecture files, review guides, animations, and helpful web links on the class Moodle site

In this course **students** are expected to:

1. Ensure that they have successfully registered on the class Connect site **within the first two weeks of class**
2. Respond to emails from me within 48 hours
3. Login to Moodle daily (minimum 5 times a week)
4. Login to Connect each morning AND evening (minimum 22 times a week!)
5. **Read and understand the class syllabus**
6. Know my office # and my office hours schedule during the semester
7. Attend and complete all Lab assignments
8. Complete the online Quiz assignments on Connect before they close.
9. Be self-motivated to learn and actively take control of YOUR education

### **Grades, Assignments and Exams:**

Final grades will be based on performance on lecture exams, lab exams, lab and APR assignments, LearnSmart (PKA) quizzes, and iClicker-based questions. 45% of the final grade will come from the lecture exams, 33% from lab exams, 10% from Labs/APRs, 6% from LearnSmart (PKA) quizzes, and 6% from iClicker questions.

There are **four (4) lecture exams** scheduled for the course. Three of the exams will be held during the term during regular class periods. The fourth exam will be held during the final exam period.

There are **three (3) laboratory exams** scheduled for the course. Two of the exams will be held during the term in your scheduled lab section. The third lab exam will be given in conjunction with the final lecture exam.

The laboratory assignments, lab exam dates, and grade policies will be given in a separate lab syllabus at your first lab meeting.

Exam questions for the lecture exams are multiple choice. Material will be drawn from lecture notes, lab work, textbook readings and possible other assignments. **Students are expected to refer to the text and read the corresponding material before and after lecture to enhance their understanding of the material presented.** You need to keep up with the material and clarify any questions as they occur. Waiting until the day before the exam is too late.

In the event that the university is officially closed on a scheduled exam date, the exam will be held on the next class date that the university is officially open.

### **There will be NO MAKE UP EXAMS!!!!**

**DO NOT MISS EXAMS!** If you know that a conflict might cause you to miss an exam, you must see me **PRIOR** to the exam to make arrangements for taking that exam early. **Pre-planned vacation and travel plans ARE NOT legitimate reasons for rescheduling an exam.** I realize that “stuff” happens. Therefore, students who legitimately miss an exam will be given the opportunity to make up the exam after **sufficient documentation** for the absence is provided. I reserve the right and authority for making the final determination of whether a makeup exam will be offered.

### **LearnSmart ASSIGNMENTS**

Each chapter we cover this semester will have **one** on-line quiz activity assigned. These quizzes, located on the Connect page in the **Prior Knowledge Assignment** (PKA) folder will consist of LearnSmart quizzes that are to be completed **PRIOR** to our discussion of the chapter. **The goal of these LearnSmart quizzes is to aid me in determining what specific concepts and material the class finds most challenging from each chapter and to then tailor lectures to address these specific items.** To do this, LearnSmart will ask you a series of questions that will adapt to your strengths and weaknesses to guide you through the material you need to learn. By answering questions correctly, you work towards completing your assignment. However, you are not penalized for getting a question wrong. You will be given the opportunity to answer a question on the same topic later in your study session. If you are willing to put in the time, you can always achieve 100% completion on your assignments.

Visit the following link for an FAQ regarding LearnSmart:  
<http://www.mhlearnsmart.com/einsteinmt/help/FAQ.html>

There are eighteen (18) LearnSmart assignments listed on the class Connect website. These assignments will be made available as we progress through the semester and the material. **Generally speaking, once a particular LearnSmart quiz is ‘opened’, you will have 48 HOURS to complete it.** Each assignment consists of ~50 questions and has an estimated time of 40 minutes to complete. **It is YOUR RESPONSIBILITY to complete these quizzes in a timely fashion! I will not always announce that a particular quiz has opened nor will I always announce that a quiz will be closing.** You should be able to achieve 100% on every LearnSmart assignment!

To earn LearnSmart assignment points:

Completion of any 15 LearnSmart assignments will earn you 2 points per assignment (30 points possible)

Completion of any additional LearnSmart assignments will earn you 2 points per assignment (6 points possible) of **extra credit added to your EXAM points total**

LearnSmart (PKA) assignments will count for 6% of your final grade.

**PKA quizzes are to be completed PRIOR to our discussion of the chapter and once closed, you WILL NOT have the ability to take a particular quiz!**

### **IClicker AND PPP QUESTIONS:**

We will be having regular **iClicker** "quizzes" **during** lecture everyday other than exam days during the semester. iClicker is a type of classroom response system which allows the instructor to pose a multiple-choice question to the entire class and allows each student to individually select and submit the answer he or she feels is correct. Once a quiz question is completed, the instructor can immediately report to the class on the number of correct and incorrect responses from the class. This immediate feedback then allows the instructor to open discussion on the critical thinking steps required to correctly answer the question, supplement the lecture with additional examples or explanations as needed, and allows time for students to ask questions. **Each student will need their own iClicker controller or have the iClicker Cloud app downloaded on their smart device and registered with the iClicker website (see below and additional instructions and information regarding iClicker registration will be provided).**

There will be two types of iClicker questions.

**1. Standard iClicker questions:** These will consist of up to two (2) multiple-choice questions posed to the class on a given day. Each student who is in class on that day and simply attempts to answer the first iClicker question during a two-minute window will receive **1 point**. A correct answer for the first question will earn **another 1 point**. If a second iClicker question is asked on the same day, the maximum score on the second question is **1 point** earned **ONLY** by answering it correctly. While a question is active, students can utilize any and all resources available to help figure out the correct answer!

For a given day, there will be 2 or 3 points available from the iClicker questions depending on whether one or two questions were asked during class. If you are not in class, you will receive NO points!

**2. PPP questions:** The second type of question is known as a **Peer Paired Problem (PPP)**. PPP questions will also use the iClicker response system to allow each student to submit their answers, but the question format is completely different from the standard iClicker questions and the hope is that each chapter covered will include one PPP question. Briefly, a **PPP question** will follow this format: A multiple-choice question will be presented to the class for up to 2 minutes. During this time, each student, working **INDEPENDENTLY**, will submit the answer he or she feels is correct. Next, each student will be asked to report his or her **confidence** (high, medium, low) in answering the question correctly. Next pairs of students or small groups (4-5 at most) will reattempt answering the original question and determine a **consensus answer**, which each student will then submit. Finally, students will report their **confidence** again (high, medium, low) in answering the question correctly as part of a pair or group. The instructor can then immediately report to the class on the number of correct responses and the confidence levels and compare the individual results vs. the paired/group results and allow time for further discussion and questions as warranted.

Once you have obtained an iClicker controller or downloaded the app, go to the following link and follow the directions for registering your iClicker. Additional instructions and information regarding iClicker registration will be provided.

<http://www.iclicker.com>

**IMPORTANT!** When asked for your student ID, you MUST use the first part of your Oakland Univ. email address (the part BEFORE the @ symbol). For example, if your email is [tjones@oakland.edu](mailto:tjones@oakland.edu), then your student ID when registering your iClicker controller or Cloud app would be tjones. DO NOT USE YOUR GRIZZLY NUMBER AS YOUR STUDENT ID WHEN REGISTERING!

**All students must have obtained AND registered their iClicker remote or iClicker Cloud App no later than January 17<sup>th</sup>, 2018! Any iClickers that remain unregistered as of March 14<sup>th</sup>, 2018 will be eliminated from my grade book and no points whatsoever will be recorded!**

iClicker and PPP questions will count for 6% of your final grade.

### **GRADES:**

To determine final grades, the following percentages will be used for each component of the class:

<u>Component</u>	<u>%</u>
Lecture Exams:	45%
Lab Exams	33%
Labs and APRs:	10%
PKA quizzes	6%
iClicker/PPPs	6%
<b>Total</b>	<b>100%</b>

Grades will be based on the percentage of total points earned.

Initial Grading Scale:

0 = Scores less than 50% total points

1.0 = 50%

1.5 = 62%

2.0 = 72%

2.5 = 77%

3.0 = 82%

3.5 = 87%

4.0 = 94%

I may adjust the grading scale to assure equitable grading at the end of the class. However, the scale will not be higher (“worse” or more “difficult”) than the scale described above. Exam and iClicker quiz scores will be posted and updated on the class Moodle site during the semester. Online PKA quiz scores can be tracked on the CONNECT site and I will NOT post these scores on moodle!

**FINAL GRADES WILL NOT BE POSTED ON MOODLE. FINAL GRADES WILL ONLY BE POSTED ON SAIL!**

## **Policies and Expectations:**

As a courtesy to the Instructor and classmates, please arrive promptly so lecture can start on time. **Cell phones and pagers must be turned off or to silent/vibrate mode during all lectures and lab sessions. During exams and lab sessions it is absolutely forbidden to use these devices.** This will be considered cheating and dealt with accordingly.

If you chose to use a laptop during class, please sit in the last row of the lecture hall or off to the sides, since the screen and activity are distracting.

## **Academic Conduct Policy:**

As members of an academic community students are expected to conform to a high standard of honesty and integrity in their academic work and behavior. Cheating on exams, falsifying reports/records and unauthorized collaboration, modifying computer programs, etc, are all considered serious breaches of academic conduct. The Oakland University Policy on academic conduct will be strictly followed with no exceptions. For further information please review the policy in the Oakland University catalog under Academic Policies and Procedure.

<http://catalog.oakland.edu/content.php?catoid=11&navoid=483>

## **Americans with Disability Act (1990):**

Students with disabilities who may require special considerations should make an appointment with the campus Disability Support Services and bring their needs to the attention of the professor as soon as possible. By the second week of class I should be aware of any special needs that students have so we can make arrangements to accommodate them. It is **your** responsibility to make sure these arrangements are made and in place moving forward during the semester.

## **Hints, Tips, Keys to success:**

1. This syllabus contains A LOT of useful and valuable information! Please consult this document first BEFORE emailing me a question regarding due dates, exam policies, and general class policies!
2. If you email me a question that is SPECIFICALLY answered in the syllabus, I WILL NOT RESPOND!
3. Try to put the details of the material we are covering into a “big picture”. Continue to add new material to this picture as we move along.
4. Ask questions. Ask questions. And, ask questions!
5. Check the Class Moodle site regularly for postings of lectures and other support material.
6. Check the class Connect site regularly.
7. **If you find yourself struggling, please arrange to meet with me so we can discuss some options for improving your performance.**
8. The DATES of exams will not change during the semester. However, the actual material that will be covered on a given exam may differ from the above schedule depending on how quickly we move through the chapters.



**CIVILITY POLICY:** I will treat you as adults and I expect you to act like adults towards your fellow classmates and myself. Behaviors during class which are NOT acceptable include:

1. Persistent and/or disruptive side conversations and interpersonal remarks.
2. Noisy rustling of snack food containers and/or beverages
3. Casual comings and goings are not acceptable; if you have a legitimate reason to leave class early, inform your professor in advance and sit in the back of the room. If you must leave class due to an immediate emergency, please do so as quietly as possible
4. If you arrive to class after lecture as begun, enter the room at the back and find a seat as quickly as possible. DO NOT enter at the front of the room after I have begun lecturing.
5. Persistent failure to abide by these and other common sense rules of courtesy may result in corrective action at the discretion of the professor, including removal of disruptive student(s) from the classroom and/or docking of points.

BIO 1006 Proposed Lecture Schedule  
**(Subject to change)**

DATE	Chapter	Topic	
<b>Jan.</b>	3	1	Welcome and Introduction to A&P I
	5	1	Introduction to A&P II
	8	3	Cells I
	10	3	Cells II
	12	5	Tissues I
	<b>15</b>	<b>MLK Day – no class</b>	
	<b>17#!</b>	5	Tissues II
	19	6	Integumentary System I
	22	6	Integumentary System II
	24	TBD	
<b>26</b>	<b><u>Examination #1 (Chapters 1, 3, 5, 6)</u></b>		
29	7	Skeletal System I	
31	7	Skeletal System II	
<b>Feb.</b>	2	8	Joints I
	5	8/9	Joints II/Muscular System I
	7	9	Muscular System II
	9	9/10	Muscular System III/Nervous System I
	12	10	Nervous System II
	14	10	Nervous System III
	<b>16</b>	<b><u>Examination #2 (Chapters 7, 8, 9, 10)</u></b>	
	<b>19</b>	<b>Winter Break</b>	
	<b>21</b>	<b>Winter Break</b>	
	<b>23</b>	<b>Winter Break</b>	

	26	11	Nervous System IV
	28	11	Nervous System V
<b>Mar.</b>	2	12	Nervous System VI
	5	12	Nervous System VII
	7	12/13	Nervous System VIII/Endocrine System I
	9	13	Endocrine System II
	12	13	Endocrine System III
	<b>14**</b>	14	Blood I
	16	14	Blood II
	19	15	Cardiovascular System I
	21	15	Cardiovascular System II
	23		TBD

**26 Examination #3 (Chapters 11, 12, 13, 14, and 15)**

	28	16	Lymphatic and Immune Systems I
	30	16	Lymphatic and Immune Systems II

<b>April</b>	2	17	Digestive System I
	4	17	Digestive System II
	6	19	Respiratory System I
	9	19	Respiratory System II
	11	20	Urinary System I
	13	20	Urinary System II
	16	22	Reproductive System I

**25 Final Examination 8:00-11:00am (Chapters 16, 17, 19, 20, 22)**

**# January 17<sup>th</sup> LAST DAY 100% TUITION REFUND - LAST DAY “NO – GRADE” DROP**  
**! January 17<sup>th</sup> Must have obtained and registered an iClicker remote/REEF App by this date**  
**\*\* March 14<sup>th</sup> LAST DAY OFFICIAL WITHDRAWAL – LAST DAY TO DROP THE CLASS**  
**% March 14<sup>th</sup> Last day to register your iClicker and receive any iClicker quiz points. NO EXCEPTIONS!**

OU website for important dates: <http://www.oakland.edu/important-dates>