**Biology 322 – Human Anatomy**

**Spring 2019**

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McGraw-Hill CONNECT website: <https://connect.mheducation.com/class/m-garbrecht-bio-322---garbrecht-spring-2019>

**Course Description:**

This course is designed to give students a broad understanding of the structure of the human body at the gross and microscopic levels and is aimed at students within the biology major who are preparing for further studies in medicine, allied health fields, clinical lab science, or graduate work. Students entering this course should have completed Bio 241 and the Chem 212/213 sequence. Other upper level courses such as organic chemistry (Chem 350/340) or cell biology (Bio 308) may prove helpful but are not required. This course is required for the Biology-Allied Health major and is a pre-requisite for Bio 323 (General Physiology).

NOTE: The examination and handling of human cadavers and preserved human tissues will be a part of the laboratory experience in order to fully appreciate and understand the complexity of human anatomy. Please contact Dr. Garbrecht as soon as possible if you have any concerns or questions concerning the use of human cadavers and tissues in this course.

**Required/ Recommended Materials:**

1. The textbook we will be using for this course is *Human Anatomy* written by Kenneth Saladin (5th Edition, published by McGraw-Hill). In addition, we will be using the companion laboratory manual written by Eric Wise (4th Edition, published by McGraw-Hill).

IMPORTANT: Each student is required to purchase a paper copy of the Laboratory Manual written by Eric Wise. The package offered by the bookstore will get you a paper copy of the lab manual, as well as a CONNECT Access Code that will allow you to log on to the McGraw-Hill CONNECT website I have set up for the semester (<https://connect.mheducation.com/class/m-garbrecht-bio-322---garbrecht-spring-2019> ). This website will include tutorials, quizzes, an excellent virtual dissection program, and also A FREE COPY OF THE ANATOMY TEXTBOOK in e-book format. Therefore, you are NOT required to purchase a paper copy of the *Human Anatomy* textbook written by Kenneth Saladin (unless you want to of course). The lab manual and Access Code for the CONNECT website can be purchased from the WSU bookstore. If you purchase the lab manual from another vendor, such as Amazon.com or Barnes and Noble, you will also need to purchase the Access Code for the CONNECT website (be sure it is specific for the 5th Edition of *Human Anatomy*). Lab manuals purchased from the WSU bookstore will include the Access Code at a reduced cost to you.

2. In addition to the above textbooks, you will also need to purchase a Personal Protection Equipment (PPE) Voucher from the bookstore. This voucher will cover the costs of disposable gloves and other disposable equipment used throughout the course of the semester. This voucher needs to be turned into the professor during the first week of class.

3. Scantron forms. For lecture exams you will need to have a supply (at least 6) of the ½ sheet Scantron forms that can be obtained from the WSU bookstore.

**Grading:**

Grades in this course will be calculated numerically based on your performance on lecture tests (5; 100pts each), laboratory quizzes (6; 50pts each), and possible pop-quizzes and other assignments. Although not officially recorded, attendance and class participation could affect the overall final grade of borderline students. **In order to be fair to all students, there will be NO EXTRA CREDIT opportunities on an individual basis .** However, I do typically offer a few points of extra credit on each quiz or exam that can certainly add up and improve your grade. ***The grading scale for this course will be as follows : 90% or above = A, 89-80% = B, 79-70% = C, 69-60% = D, less than 60% = F.*** Since grades will be determined numerically based on the number of points you earn on each exam, quiz, or assignment, each of you has the ability to determine what your current grade is at any point in the semester.

Since you will know how many points are still available in the semester, you always know where you stand and how many points you will need to earn in order to achieve the grade that you want. It is very important that you routinely monitor your standing in the class in order to prevent finding yourself unable to achieve your personal goals at the end of the semester. This can be done by checking your scores on the D2L website.

*Make-up exams*: As a general rule, make-up exams will not be offered. Therefore, you must make every human effort to make it to class to take the exam. Obviously, exceptions will be made for extreme circumstances that are out of your control such as a death or hospitalization of an immediate family member (or yourself) that can be documented, military service, etc. Not feeling well, bad weather that does not close the university, missing your ride back to school, dentist appointments, etc… are not acceptable excuses. If you anticipate that you will be unable to make it to an exam you need to contact me AS SOON AS POSSIBLE PRIOR TO EXAM TIME. This can be accomplished via an email or voicemail late at night or early in the morning, even if I don’t immediately respond. It is important to note that make-up exams will NEVER be the same exams that the rest of the class took. Make-up exams will most likely involve long-answer essay type questions, not just a different set of multiple choice questions. Please take this into account when deciding whether or not you really think you need to miss an exam.

**Attendance and quizzes:**

Attendance will not be recorded in this class and generally will not have a direct effect on your grade. That being said, I cannot emphasize how important it is to show up for lecture. Getting the notes from someone else or reading up in the book will not substitute for physically being in class. Poor attendance at lecture will almost certainly make it difficult to absorb and comprehend all the material you will be responsible for in this class. Lectures will not necessarily include ALL the material from the book and often will include material that is not specifically covered in the book or Power Point lectures. As your instructor, I am always eager to help a hard-working student understand the required material. My office door is pretty much always open if you want to talk.

**Students with Disabilities:**

It is the policy of WSU to accommodate the special needs and requirements of all students. Please contact Dr. Garbrecht as soon as possible if you have a documented disability and require special accommodations for lecture, lab, or test taking. In addition, you are encouraged to contact the Disability Services office (314 Maxwell Hall) at <http://www.winona.edu/accessservices/> or 457-2391.

***Tentative Lecture Schedule***

***\*\*\*\*\*\*\*\* Lecture Exam Dates \*\*\*\*\*\*\****

**Monday, February 4th**

**Monday, February 25th**

**Monday, March 25th**

**Monday, April 15th**

**Tuesday, May 7th (FINALS WEEK)**

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| --- | --- | --- |
| *Week* | *Lecture Topic* | *Lecture Reading* |
| 1/14/19 | Intro to Human Anatomy | Ch. 1-2 |
| 1/21/19 (No class/lab on Monday-MLK Day) | Cytology/Histology | Ch. 2-3 |
| 1/28/19 | Cytology/Histology/ Development | Ch. 3-4 |
| 2/4/19 | Integument/Bone | Ch. 5-6 |
|
| 2/11/19 | Skeletal system/Joints | Ch. 6 and 9 |
| 2/18/19 | Muscular System | Ch. 10-12 |
| 2/25/19 | Nervous tissue | Ch. 13 |
|
| 3/4/19 | Nervous system | Ch. 14-16 |
| 3/18/19 | Special Senses/Endocrine | Ch. 17-18 |
| 3/25/19 | Circulatory | Ch. 19-21 |
|
| 4/1/19 | Circulatory/Lymphatics/Immune | Ch. 22 |
| 4/8/19 | Respiratory | Ch. 23 |
| 4/15/19 (No class Friday) | Digestive | Ch. 24 |
| 4/22/19 | Urinary/Digestive | Ch. 24-25 |
| 4/29/19 | Reproductive | Ch. 26 |
| **FINAL EXAM** | TUESDAY of Finals Week  May 7th | 8:00-10:00am |

***LABORATORY SCHEDULE***

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| --- | --- | --- |
| Lab Date | Topic | Exercise |
| 1/14/19 | bones | Handout and Exercise 1 |
| 1/16/19 | bones | Handout |
| 1/23/19 | bones | Handout |
| 1/28/19 | Bones/Joints Exam #1 |  |
| 1/30/19 | muscles | Handout |
| 2/4/19 | muscles | Handout |
| 2/6/19 | Muscles Exam #2 |  |
| 2/11/19 | Microscopy/Tissues | 4 |
| 2/13/19 | Tissues | 4 |
| 2/18/19 | Tissues/Integumentary | 5 |
| 2/20/19 | Histology/skin Exam #3 |  |
| 2/25/19 | Brain | 16 |
| 2/27/19 | Spinal cord/nerves | 17 |
| 3/4/19 | Brain/Spinal cord/nerves | 16, 17 |
| 3/6/19 | Vision/Hearing | 18 |
| 3/18/19 | Vision/Hearing | 18 |
| 3/20/19 | Lab Exam #4 |  |
| 3/25/19 | Blood | 20 |
| 3/27/19 | Heart | 21 |
| 4/1/19 | Heart/Blood Vessel anatomy/histology | 21, 22, 23, 24 |
| 4/3/19 | Blood Vessels | 22, 23, 24 |
| 4/8/19 | Respiratory | 25 |
| 4/10/19 | Catch up/Review |  |
| 4/15/19 | Lab Exam #5 |  |
| 4/17/19 | Digestive | 26 |
| 4/22/19 | Urinary | 27 |
| 4/24/19 | Reproductive | 28, 29 |
| 4/29/19 | Catch up/Review |  |
| 5/1/19 | Lab Exam #6 |  |

**Statement on the use of cadavers in Bio 322:**

***No cell phones and/or cameras are allowed in the laboratory***. Videotaping or photographing the human anatomical material is strictly prohibited without the prior consent of the University of Minnesota’s Anatomy Bequest Program Proposal Review Committee, including but not limited to any images which will published or distributed.

Students shall track all human anatomical material by keeping the donor’s acquisition number tag with the donor at all times.  If the tag becomes disassociated from the donor, the course director should be contacted immediately.  All tissue removed from the donor during dissection must be retained, identified with the donor’s acquisition number and tracked.  Bins will be provided for appropriate storage of any removed tissues, and should stay with the donor at all times.

Anatomical material must not be removed from the dissecting laboratory.

Unauthorized access to the lab is not permitted – i.e. dissection and/or study of the donors without the permission of the instructor is forbidden.  Additionally, individuals not enrolled in the course are not permitted to view the donors without permission by the instructor and fulfillment of all stated requirements.

Disrespectful language, improper handling, or any other behavior deemed inappropriate in regards to the donor or dissection process will not be allowed or tolerated.  Both conversational and written language relating to the donor and donor dissection by human anatomy students lab must be respectful and discrete. Any information about the donor including the donor’s demographical, social or medical history is confidential and students are not allowed to disclose this information.

The use of the Internet in general, and social media sites in particular, including, but not limited to, Facebook, MySpace, Twitter, etc., by students as a venue for discussing any aspect of the donor or donor dissection is strictly prohibited.

Proper attire must be worn for all anatomical study.  This includes long pants or floor length skirt, full coverage t-shirts (short or long sleeve), and closed-toed shoes.

The laboratory must remain clean.  Laboratory tables and counters should be thoroughly washed after each lab, and the floors should be kept free of spills and wastes.

### Commitment to Inclusive Excellence

WSU recognizes that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders and gender identities, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences.  If you feel your differences may in some way isolate you from WSU’s community or if you have a need of any specific accommodations, please speak with the instructor early in the semester about your concerns and what we can do together to help you become an active and engaged member of our class and community.

### Campus Resources

* [Winona] Student Support Services, Krueger Library 219, 457-5465[www.winona.edu/studentsupportservices/](http://www.winona.edu/studentsupportservices/)
* [Rochester] Student & Campus Services, UCR Room SS 128, 285-7100,[rochss@winona.edu](mailto:rochss@winona.edu), [www.winona.edu/rochester](http://www.winona.edu/rochester)
* Inclusion and Diversity Office, Kryzsko Commons Room 236, 457-5595[www.winona.edu/inclusion-diversity/](http://www.winona.edu/inclusion-diversity/)
* Access Services, Maxwell 314, 457-5878 [www.winona.edu/accessservices/](http://www.winona.edu/accessservices/)
* [Winona] Counseling and Wellness Services, Integrated Wellness Complex 222, 457-5330 [www.winona.edu/counselingcenter/](http://www.winona.edu/counselingcenter/)
* [Rochester] RCTC Counseling Center, UCR Room SS 133, 285-7260, www.rctc.edu/counseling\_career\_center
* GLBTA Advocate, Prof. Dan Lintin, PAC 207, 457-5531
* Advising Services, Maxwell 314, 457-5878 [www.winona.edu/advising/](http://www.winona.edu/advising/)
* [Rochester] UCR Learning Center, UCR Room AT 306, 285-7182
* [Winona] Tutoring Services, Krueger Library 220, 457-5680<http://www.winona.edu/tutoring/>
* [Winona] Writing Center, Minné Hall 348, 457-5505[www.winona.edu/writingcenter/](http://www.winona.edu/writingcenter/)
* [Winona] Math Achievement Center, Tau 313, 457-5370<http://www.winona.edu/mathematics/mac/>