

BIOL 250 Lecture Syllabus Spring 2013

COURSE INFORMATION

Credits: 4.0 units
Lecture: TR 9:45-11:00am, Room 22-116
Lab AC: TR 8:10-9:25am, Room 18-221
Lab AD: TR 11:10am-12:25pm, Room 18-221
Review Session: WR 1-3pm, Learning Center
Website: <http://smccd.mrooms.net/>

INSTRUCTOR INFORMATION

Professor: Dani Behonick, Ph.D
Office: 16-205
Phone: 650-306-3386
Email: behonickd@smccd.edu
Office Hours: MT 1-4pm,
& by appointment

COURSE DESCRIPTION & LEARNING OUTCOMES

In this course you will study the microscopic and gross anatomical structures of the major human organ systems through use of human cadaver prosections, models, and illustrations. Emphasis will be placed on gross anatomy, however, the embryological origins of tissues and effects of aging and disease will also be discussed. Upon completion of the course, students will be able to:

- Describe the gross and microscopic anatomical features of human organ systems.
- Describe the anatomical changes that occur throughout the human lifespan.
- Explain how the shape and composition of anatomical structures determine their function.
- Develop and apply practicable analytical skills and study habits consistent with success in college science courses.
- Deconstruct anatomical terminology using knowledge of Greek and Latin roots, prefixes and suffixes.
- Recall and identify anatomical structures from images, models, specimens and human cadavers.
- Develop respect and appreciation for the gift of human cadavers; explain and defend their use in anatomy education.

REQUIRED RESOURCES

Required text for purchase or rental:

Human Anatomy, Sixth Edition by Marieb, Mallatt & Wilhelm, ISBN-13: 9780321570901

A Brief Atlas of the Human Body by Hutchinson, Mallatt & Marieb (included in textbook bundle)

Online access

The course web site (Web Access) is a digital hub for locating course materials, performing online quizzes, accessing grades and communicating between students and the instructor. Free computer access is provided by the Learning Center (Bldg 9) which is open M-R 8am-9pm and F 8am-3pm.

COURSE EXPECTATIONS & REQUIRED WORK

Each student is assigned to attend a specific section of lecture and laboratory, and is expected to attend his/her/zir assigned section. Students who miss lab or lecture at their assigned day/time may not make this up by attending an alternate section. Students who have documentable reasons for an absence in advance may submit this documentation at least 1 week in advance of an absence for consideration by the professor.

Learning anatomy is like learning a foreign language. The more you immerse yourself in it, exposing yourself daily to the vocabulary, the better it stays in your memory. This is especially true with the lab vocabulary. Students who do not take advantage of all required lab hours do not succeed in this course. Each day in lab you should select a partner with whom you can review and do practice drills. Students who regularly invest time with a partner reviewing, practicing, and repeating the material will do better in the course than those who review alone! You can use the following table to plan your weekly study strategy:

| Task: | Hours/week |
|----------------------------------|------------|
| Lecture | 3 |
| Lab | 3 |
| Reading and studying (estimated) | 6 |

by Doug Hirzel

General expectations/requirements

- Be aware of important dates (lab practicals, lecture quizzes, lecture exams, etc.).
- Engage in the laboratory activity or classroom discussion – ask a question, make a (topic-related) comment, ask for more information about something that interests you.
- Stay on top of your grade – all of your scores in this course will be available in the “Grades” section of the course Web Access page. If you don’t understand your grade breakdown, ask to meet with the professor to review your work/scores.

Lecture

- Complete the assigned reading before coming to class.
- Print lecture notes from Web Access before coming to class (optional).
- Review notes after lecture, ask additional questions by email or at office hours.

ASSESSMENT & EVALUATION

Laboratory Practical

Please see Laboratory Syllabus for details.

Lecture Quizzes

There are two scheduled lecture quizzes that occur before each lecture exam, for a total of six quizzes for the semester. Each quiz is completed online at the course Web Access page during a scheduled period of days. It is expected that you will not collaborate with other students on these quizzes and will complete them in accordance with the College’s Academic Integrity policy.

Each quiz is 15 questions in length. Each question is worth 1 point. Quizzes will test students’ knowledge of material from the lecture portion of the course only – no material from the laboratory portion of the course will appear on quizzes. Once you begin a quiz, you have only 35 minutes to complete it. You may attempt a quiz twice but must wait at least 30 minutes between attempts. Use this time to study the material in more detail. If you make a second attempt, your final grade will be the average of both attempts. Also note that with each attempt, the questions may be slightly different. Although a "Save without Submitting" button may appear at the bottom of the quiz page, it will not work.

If you encounter a technical problem while taking a quiz, you must immediately notify your lecture instructor by email with the time, date and nature of the problem.

Quizzes will occur according to the following schedule:

| <i>Quiz</i> | <i>Opens</i> | <i>Closes</i> | <i>Topics Covered</i> |
|-------------|--------------|---------------|---|
| 1 | R Jan 31 | R Feb 7 | Anatomical position, planes, body cavities, epithelial & connective tissues, integument |
| 2 | T Feb 12 | T Feb 19 | Bones, joints |
| 3 | R Mar 14 | R Mar 21 | Nervous tissue, CNS, PNS |
| 4 | T Mar 26 | R Apr 4 | Heart, Blood vessels |
| 5 | R May 2 | R May 9 | Respiratory system, Gastrointestinal system |
| 6 | T May 14 | T May 21 | Urinary system, Reproductive systems |

Lecture Exams

There will be a total of 3 non-cumulative lecture exams; the third exam is scheduled during finals week. Lecture exams consist of multiple choice and short answer questions that are relevant to lecture material. The multiple choice portion of these exams will require the use of a 50-question red colored ParScore™ form which you must purchase from the campus bookstore. Exams can be taken **only on the scheduled dates**. In the event of an extreme, unavoidable **and documentable** absence from an exam, an makeup essay exam **may** be administered at the professor's discretion within 1 week of the original exam date.

Accommodations will be made for students with verified learning disabilities as directed by the campus Disability Resource Center.

Examinations remain in the instructor's possession. Students may review the exams at any time during the semester by coming to office hours or by appointment. All exams are destroyed six months after the end of the semester. Any student who wishes to dispute the grading of an exam question must do so in writing within 1 week of the graded exam return.

On exam days, the classroom will be open 10 minutes before the start of the exam period. All possessions must be left in the front of the classroom; students may bring to their desks their ParScore™ forms, writing implements and a bottle of water. Anything else will be at the professor's discretion and will be inspected before the exam begins. Students should take care of any restroom trips before the exam begins, as no one may leave the classroom and reenter during the exam period.

CLASS POLICIES

- Each student has the right to learn in a safe and respectful environment. Be respectful of your fellow students, your instructors, your facility and your learning materials. This includes but is not limited to: paying attention during lectures, not distracting classmates during laboratory or lecture, and engaging in appropriate classroom behavior. Students who violate this policy will be removed from class and directed the Dean of the Science & Technology Division and/or the Vice President of Student Services for further guidance.
- Arrive to class on time. If you're late, come in quietly and do not interrupt the lecture with your entrance.
- Having beverages in lecture is fine, having food is not.
- Ask questions during class by raising your hand, after class, by email and/or during office hours/review.
- If you must miss a lecture, it is your responsibility to obtain notes and handouts from that class.
- **ACADEMIC INTEGRITY POLICY** Cheating or any manner of academic dishonesty (or appearance thereof) will not be tolerated and will be dealt with severely. Cheating/academic dishonesty includes but is not limited to: sneaking answers into an exam period, passing answers to a classmate during a quiz or exam, copying answers from a classmate during a quiz or exam and/or plagiarism (from a published source or another student). These infractions may result in a grade of 0 points on the quiz/exam/assignment in question and/or in expulsion from the class or the school (at the discretion of the professor, the Dean of the Division and the Vice President of Student Services).
- **TECHNOLOGY POLICY** The lecture classroom is a technology-free zone. All manner of technological devices including (but not limited to) cellular phones, satellite phones, pagers, laptops, etc. must be turned-off and remain off for the duration of the lecture. The only exception to this policy is voice recorders, which may be used to tape lectures. If you are caught using an unapproved technological device or if your phone rings during lecture, you will be asked to leave class for the day.
- **ATTENDANCE POLICY** During the first two weeks of the course, failure to attend any class meeting time will result in the student being dropped from the course. After the second week, four or more consecutive unexcused absences will result in the student being dropped from the course.

- **WITHDRAWAL FROM THE COURSE**

| | |
|---|--------------------------------|
| Last date to drop with a refund | <u>January 28, 2013</u> |
| Last date to drop without “W” on transcript | <u>February 3, 2013</u> |
| Last date to drop with “W” on transcript | <u>April 25, 2013</u> |

If you are still on my roster as of **April 25, 2013**, I must assign you a grade for this course.

GRADING POLICY

| | |
|--------------------------------|-------------------|
| Lab practicals, 3 x 60 points | 180 points |
| Lecture quizzes, 6 x 15 points | 90 points |
| Exams, 3 x 80 points | <u>240 points</u> |
| TOTAL | 510 points |

The following distribution is tentative and subject to change if circumstances warrant in order to provide a more accurate representation of the work actually assigned during the semester.

FINAL GRADES:

- A = 459 – 510 total points
- B = 408 – 458.9999... total points
- C = 357 – 407.9999... total points
- D = 306 – 356.9999... total points
- F = 305.9999... or fewer total points

Scores are **not** curved in this course and extra credit assignments are **not** available. I do not round, I do not “bump” students to the next highest grade regardless of how close they may be, and I **sincerely do not appreciate being asked to do this**. All requests of this nature will be ignored.

LETTERS OF RECOMMENDATION

Students who wish to request letters of recommendation from the instructor must do so at least 1 month in advance of their submission deadline. The instructor requires the following materials at this date: a copy of a current resume/curriculum vitae, a draft of the student’s personal statement, any forms that must be included with the references and any guidelines the school(s)/program(s) provide regarding desired content of recommendations. If the recommendation is to be completed/submitted electronically, a link to the upload site should be provided at this time. Any requests submitted less than 1 month in advance of the submission deadline will be denied. The instructor reserves the right to decline to write a recommendation for any student. Please note that if the instructor will be expected to mail the recommendation(s) directly to the school(s), it is good form for the student to provide postage.

APPENDIX 1.

Thoughts on Plagiarism

Plagiarism is illegal in the United States and is not tolerated in my classroom. Don't do it and we'll get along famously.

What is plagiarism?

If you copy information word-for-word from a source and do not put it in quotation marks and clearly state who the original author/source of that information is, you have committed plagiarism. Under the laws on intellectual property, you have just stolen the words and ideas of someone else, which is a crime. You **MUST** give credit to the original author/source.

“Here are some examples: All of the following are considered plagiarism:

- turning in someone else's work as your own
- copying words or ideas from someone else without giving credit
- failing to put a quotation from any source in quotation marks
- giving incorrect information about the source of a quotation
- changing words but copying the sentence structure of a source without giving credit
- copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not ”

Source: **www.Plagiarism.org**

If you copy the words of another student and present them as your own work, this is also plagiarism.

How do you avoid plagiarism?

Just like shown above (see boxed text), you must place quotation marks (“ ”) before and after the information that you are quoting and then clearly state the origin of the information (i.e. **cite the source**). This citation can also be placed in a bibliography.

When you correctly cite ideas and information you avoid committing plagiarism AND you have the chance to have your own ideas stand out, your originality comes across and your work is more professional.

It is even preferable to this to write everything in your own words whenever possible. This not only makes it less likely that you will plagiarize, but also makes it more likely that you will retain the information you have learned, as you have explained it in a way that makes sense to you.

For more information, visit www.plagiarism.org for more explanations about plagiarism and how to avoid it, and/or talk to Dr. Behonick. Ignorance is never an excuse for plagiarism.

Authors: Drs. Silvia Foppiano & Dani Behonick

BIOL 250 LECTURE SCHEDULE (subject to change)

| <i>Date</i> | <i>Topic</i> | <i>Text Chapter</i> | <i>Lecture Quizzes</i> |
|-----------------|--|--------------------------------------|------------------------|
| T Jan 15 | First Day Shenanigans / Introduction | | |
| R Jan 17 | Organizational Anatomy | 1 pp. 2-12 | |
| T Jan 22 | Tissues Epithelia | 4 pp. 65-76 | |
| R Jan 24 | Connective Tissue | 4 pp. 76-90 | |
| T Jan 29 | Integumentary System | 5 pp. 102-114 | |
| R Jan 31 | Integumentary System | 5 pp. 102-114 | Quiz 1 |
| T Feb 5 | Bones | 6 pp. 122 – 134 | |
| R Feb 7 | Bones | 6 pp. 134 - 139 | |
| T Feb 12 | Bones Joints | 6 pp. 134 – 139 9 pp. 207 - 219 | Quiz 2 |
| R Feb 14 | Joints | 9 pp. 219 – 225, 234 – 235 | |
| T Feb 19 | Skeletal Muscles | 10 pp. 241 – 246 | |
| R Feb 21 | Skeletal Muscles | 10 pp. 246 – 251 | |
| T Feb 26 | EXAM 1 | | |
| R Feb 28 | Nervous Tissue | 12 pp. 348-362 | |
| T Mar 5 | Central Nervous System | 13 pp. 374 – 382 | |
| R Mar 7 | Central Nervous System | 13 pp. 383 – 397, 405, 407 – 411 | |
| T Mar 12 | Peripheral Nervous System | 14 pp. 427 – 439 | |
| R Mar 14 | Peripheral Nervous System | 14 pp. 439 – 456 | Quiz 3 |
| T Mar 19 | The Heart | 19 pp. 556 – 568 | |
| R Mar 21 | The Heart | 19 pp. 568 – 572 | |
| T Mar 26 | Blood Vessels | 20 pp. 581 – 588 | Quiz 4 |
| R Mar 28 | Lymphatic System | 21 pp. 618 – 622, 625 – 630 | |
| T Apr 2 | NO CLASS – SPRING BREAK | | |
| R Apr 4 | NO CLASS – SPRING BREAK | | |
| T Apr 9 | Lymphatic System | 21 pp. 622 – 625 | |
| R Apr 11 | EXAM 2 | | |
| T Apr 16 | Respiratory System | 22 pp. 636 – 644 | |
| R Apr 18 | Respiratory System | 22 pp. 644 – 652 | |
| T Apr 23 | Respiratory System | 22 pp. 653 – 657 | |
| R Apr 25 | Gastrointestinal System | 23 pp. 666 – 675 | |
| T Apr 30 | Gastrointestinal System | 23 pp. 675 – 688 | |
| R May 2 | Gastrointestinal System | 23 pp. 688 – 697 | Quiz 5 |
| T May 7 | Gastrointestinal System | 23 pp. 693 – 699 | |
| R May 9 | Urinary System | 24 pp. 708 – 717 | |
| T May 14 | Urinary System Reproductive Systems | 24 pp. 717 – 723 25 pp. 742 – 755 | Quiz 6 |
| R May 16 | Reproductive Systems | 25 pp. 731 – 739 | |
| T May 21 | EXAM 3 8:10 – 10:40am | | |

T = Tuesday
R = Thursday

BIOL 250 Laboratory Syllabus Spring 2013

INSTRUCTOR INFORMATION

Professor: Dani Behonick, Ph.D
Office: 16-205
Phone: 650-306-3386
Email: behonickd@smccd.edu
Office Hours: MT 1-4pm, & by appointment
Review: WR 1-3pm, Learning Center

LABORATORY EXPECTATIONS & REQUIRED WORK

- Attend your assigned laboratory section.
- Preview the day's laboratory topic in the atlas and/or textbook before coming to lab.
- Print/download study sheet and laboratory notes (if any) from Web Access before coming to lab (optional).
- Review notes after lecture, ask additional questions by email or at office hours/review.

OPEN LABS

If possible, Dr. Behonick will hold Open Laboratory periods, where students may come for extra hands-on study time with the models and specimens, periodically throughout the semester. These sessions are subject to laboratory availability and are not a substitute for regular laboratory attendance.

ASSESSMENT & EVALUATION

Lab Practicals

There are three non-cumulative lab practical exams. These exams require you to identify structures indicated on models, preserved specimens and cadavers. Students rotate through a series of stations; time at each station is limited to 2 minutes. Although you will be in close contact with fellow students during the exam, this is not a collaborative effort. Cheating, or giving the appearance of cheating, will be dealt with according to the instructor's policies and the College's Academic Integrity policy.

To have the full time allotted for the exam, and to be able to view each station, students must arrive on time to lab practicals. Students arriving late to lab practicals will not have the opportunity to make-up the stations they miss. Lab practicals can be taken **only on the scheduled dates** and makeups are completely unavailable. Any student missing a lab practical will be assigned a grade of "Incomplete" for the semester; this incomplete will be completed in Dr. Behonick's BIOL 250 class in **Spring 2014**.

HUMAN CADAVERS & LABORATORY SPECIMENS

Cadaver Dissection

Most anatomists agree that human cadavers are essential to successfully learning anatomy. Illustrations, photographs and computer programs cannot replace first hand observation of human specimens. Dissection and handling of cadaveric preparations provides students insight into the nature of tissues and the relationships between organs and tissues that are simply not possible to describe in text or pictures. Here at Cañada we are fortunate that the College has a longstanding commitment to providing its students with the best in anatomy education. We receive a new cadaver every 1-2 years so that students have the opportunity for dissection, a prerequisite to some medical education programs. The cadavers are provided through the

Universal Life Gift donation program administered by the State of California Curators Office. While dissection of the cadaver is optional, ***observation and testing from the cadaver is required***. Students wishing to participate in cadaver dissection are encouraged to schedule time outside of class with the instructor.

Health Considerations

The human cadavers used in this course have been prepared with preservatives containing phenol. Ordinary exposure by students in this class to these levels of phenol are not dangerous, but women who are pregnant, or who may become pregnant, should consult their health care professional for his/her/zir recommendation.

Care of bones

- Bones are FRAGILE and irreplaceable! Handle them gently and with care. If you are unsure of yourself, err on the side of using the plastic bone models.
- Do NOT use pen or pencils as pointing devices. Probes and pipe cleaners are provided and can be used to indicate structures.
- Return all bones to their labeled containers.

Care of specimens

- Always wear gloves when touching preserved specimens. This is for the protection of the specimens as well as yourself.
- Preserved specimens dry out when exposed to the air. If you are not viewing a particular specimen, or part of a specimen, keep it covered with cheesecloth or gauze.
- Periodically spray preserved specimens with "Cadaver Preservation Fluid". NEVER USE WATER!

Photography & Theft

Photography of specimens, models and even wall charts, is ABSOLUTELY FORBIDDEN and will jeopardize our license and ability to have cadavers at our college. As such, no cellular phone use is permitted in the anatomy laboratory; cellular phones used as voice recorders must be set to non-transmitting mode ("Airplane Mode"). You have limited access to the lab so make use of your time accordingly. Outside of lab hours you will have to rely on the variety of atlases and online resources that can approximate the materials and specimens you saw in class. The removal of any plastic or human specimen/bone from the lab is ILLEGAL and violators will be prosecuted! Avoid the temptation to "borrow" bones, whether plastic or real, for your own study. The plastic bones/models are extremely expensive and the possession of human bones is AGAINST THE LAW.

BIOL 250 LAB CALENDAR: *Disclaimer - this calendar is tentative and subject to change*

| DATE | LAB | Text Pages | Atlas Pages |
|-------------|--------------------------------|--|--------------------|
| Jan. 15 | Spinal column & Thoracic bones | Ch.7, pp. 167 – 174 | pp. 44 – 55 |
| 17 | Spinal column & Thoracic bones | Ch.7, pp. 174 – 176 | pp. 56 – 59 |
| Jan. 22 | Spinal column & Thoracic bones | | |
| 24 | Skull; Skin | Ch.7, pp. 149 – 159 | pp. 27 – 42 |
| Jan. 29 | Skull; Skin | Ch.7, pp. 159 – 161 Ch.5, 102 – 110 | pp. 15, Plate 37 |
| 31 | Skull & Head/Neck Muscles | Ch.11, pp. 278 – 285 | pp. 96 – 99 |
| Feb. 5 | Skull & Head/Neck Muscles | | |
| 7 | Skull & Head/Neck Muscles | | |
| Feb. 12 | Skull & Head/Neck Muscles | | |
| 14 | Lab Practical 1 | | |
| Feb. 19 | CNS/PNS | Ch.13, pp. 374 – 383 | pp. 100 – 104 |
| 21 | CNS/PNS | Ch.14, pp. 439 – 441 | pp. 105 – 107 |
| Feb. 26 | CNS/PNS | | |
| 28 | Upper Appendicular Skeleton | Ch.8, pp. 183 – 191 | pp. 60 – 66 |
| Mar. 5 | Upper Appendicular Skeleton | | |
| 7 | Upper limb/torso muscles | Ch.11, pp. 270-271, 303 – 311 | pp. 87 – 89 |
| Mar. 12 | Upper limb/torso muscles | Ch.11, pp. 296 – 302 | pp. 85 – 86 |
| 14 | Upper limb/torso muscles | Ch.11, pp. 288 – 293 | |
| Mar. 19 | Heart | Ch.19, pp. 558 – 565 | pp. 108 – 113 |
| 21 | Heart | Ch.19, p. 572 | |
| Mar. 26 | Respiratory System | Ch.22, pp. 640 – 653 | |
| 28 | Lab Practical 2 | | |
| Apr. 2 | [SPRING BREAK] | | |
| 4 | [SPRING BREAK] | | |
| Apr. 9 | GI System | Ch.23, pp. 669 – 671, | pp. 114 – 123 |
| 11 | GI System | 675 – 699 | |
| Apr. 16 | Lower Appendicular Skeleton | Ch.8, pp. 191 – 201 | pp. 67 – 81 |
| 18 | Lower Appendicular Skeleton | | |
| Apr. 23 | Lower Appendicular Skeleton | | |
| 25 | Lower Limb Muscles | Ch.11, pp. 312 – 329 | pp. 92 – 95 |
| Apr. 30 | Lower Limb Muscles | | |
| 2 | Lower Limb Muscles | | |
| May 7 | Urinary & Reproductive Systems | Ch.24, pp. 708 – 715, 719 – 721 | pp. 124 – 125 |
| 9 | Urinary & Reproductive Systems | Ch.25, pp. 742 – 746, 753 – 755 | pp. 128 – 129 |
| May 14 | Urinary & Reproductive Systems | Ch.25, pp. 731 – 739 | pp. 126 – 127 |
| 16 | Lab Practical 3 | | |