

IMPERIAL VALLEY COLLEGE

BIOL 204 (10017)

Human Anatomy

Fall 2012

4 Credits



Instructor: Ms. Susan Moss, Associate Professor of Biology

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Office Hours: Monday & Wednesday 1:30 – 2:00
Tuesday & Thursday 10:00 – 11:30

Lecture: Tuesday & Thursday 1:30 – 2:25 room 2726

Independent Study Time: 2:30 – 3:00

Lab: Tuesday & Thursday 3:00 – 5:45 room 2736

Required Textbooks for EACH student:

Principles of Human Anatomy, Tortora & Nielsen, 12th edition

Customized Version: *BIOL 204 Human Anatomy Lab Manual*

Recommended Materials: blank index cards (lots!), colored pencils, highlighters, camera, stapler

Prerequisite: Completion of MATH 090 and BIOL 100 or BIOL 122 or BIOL 180 or BIOL 182, with grades of “C” or better. Or, MATH 090 with a grade of “C” or better AND current California LVN or RN license.

General Class Policies & Rules

- Attendance and punctuality are required. I start on time and expect you to be seated by the time class starts. If tardiness becomes a problem, I will start locking out late arrivers.
 - ❖ If you miss 6 instructional periods (lectures or labs), you will be dropped from the course.
 - NOTE: Each lecture & lab is considered a separate instructional period.**
 - ❖ Every 2 times you are late will count as 1 absence.
 - ❖ If you exceed the maximum number of allowed absences after the drop deadline, you will receive 0/30 attendance/participation points.
 - ❖ There are no “excused absences.” Every absence counts against you.
- Lecture outlines will be emailed to you, and you must bring those to class.
- Only **English** should be spoken when class or lab is in session.
- Disruptive behavior during lecture or lab will not be tolerated and can result in your being dropped from the course.
- No sleeping in class.
- Electronic devices such as cell phones and iPods must remain **OFF** during class. Laptops may be used for note-taking and voice recorders may be used to record lectures.
- No open food or drink containers are allowed in the classroom or lab. Snacks should be eaten outside the building during breaks.

Course Description: Lecture and laboratory course designed to study the fundamental principles of human body structure at the cellular, tissue, organ and systems level of organization.

Course Objectives

The student will be able to...

- characterize the levels of structural organization in the human body and to describe anatomical terms.
- define a cell and explain the structure and functions of its principle parts.
- identify and discuss the origin, classification, structure, location and function of four major types of tissues.
- describe the structural and functional characteristics of the various layers of the skin.
- describe the gross features of a long bone and the process of bone formation.
- identify the bones of the skeleton and their important surface markings.
- describe the structural and functional classification of the joints.
- describe the structure and components of muscle tissue.
- identify the principal skeletal muscles of the body and describe their movements.
- describe characteristics of the blood plasma and the formed elements.
- describe the general flow of blood circulation and the structural and functional features of the heart.
- contrast the structure and functions of arteries, arterioles, capillaries, venules, and veins.
- trace lymphatic circulation and to describe the structure and functions of lymphatic tissues and organs.
- describe the organization of the nervous system and structure of neurons and neuroglia.
- describe the anatomy of the spinal cord, the reflexes, spinal nerves and nerve plexuses.
- identify the principal parts of the brain and cranial nerves.
- describe the components of sensory and motor pathways.
- identify the structures associated olfaction, taste, vision, hearing and equilibrium.
- compare the structural and functional differences between the somatic and autonomic nervous systems.
- describe the structural divisions, location, histology of the major endocrine glands of the body.
- describe the anatomy of the organs of the respiratory system and the mechanics of pulmonary ventilation.
- identify and describe the structure and functions of the organs associated with digestion.
- identify the external and internal anatomical features of the kidney.
- identify and describe the structure, histology, and functions of the male and female reproductive systems.
- describe the major events that occur during pregnancy.

Student Learning Outcomes

- Display critical thought related to topics in human anatomy using written forms of expression and examination.
- Display knowledge of anatomy and dissection competency using preserved specimens and/or a human cadaver.
- Display critical thought related to topics in human anatomy as it applies to a global perspective.
- Demonstrate competency in communicating information related to the anatomy of the heart.

IVC Withdrawal Policy

- The deadline for dropping a course without it appearing on your transcript is **Sept. 3rd**.
- The deadline for dropping the course with a “W” is **November 10th**.

Exams

Most exams will include a **practical part** and a **written part**. Questions on both will be based on lecture notes and lab activities. Written questions will include essay-type questions as well as multiple-choice, fill-in, and matching questions. Tests will also include diagrams to label. Most practical questions will be recall-type questions and **spelling counts** (every 2 spelling errors → lose 1 pt).

NO Make-up Exams Will Be Given

If you notify me in advance that you have to miss an exam **and** you have a legitimate excuse with supporting documentation, I will prorate the first missed exam. Any other missed exams will receive a zero.

Laboratory – Policy & Procedures

- You will be responsible for conducting yourself properly and safely during lab. This includes: handling materials and equipment carefully, following instructions, wearing safety glasses and keeping hair tied back when doing dissections, putting items back where you found them, and cleaning your area before leaving.
- Lab work will consist of material taken from the Laboratory Manual and any additional information assigned. For some labs, you will be required to turn in a lab report. Only original pages from the lab manual will be accepted.
- For computer activities, no more than 2 people may work together.
- For all other activities, no more than 3 people may work together.
- All group members must participate in **all** activities.
- Everyone in a group will receive the same grade.
- Each group member must write his/her **own** name on lab reports.

Missed labs cannot be made up.

Oral Presentation – Replacement of Body Parts

You will be required to independently research and present information related to the replacement of body parts. There are 6 groups, and you will be assigned a specific topic within one of those groups. Each person's presentation should last **6-7 minutes** and a PowerPoint slide show is required. Your slide show should **enhance** your presentation... *not* be a script.

Group 1: Tissues & skin

Group 2: Pectoral girdle & upper limb parts

Group 3: Pelvic girdle & lower limb parts

Group 4: Cardiovascular and/or respiratory parts

Group 5: Sense organs and/or urinary parts

Group 6: Growing new body parts: regeneration and stem cell research

“In the News” – Current Research in Human Anatomy

Once during the semester, you will be required to find a **news** article related to a particular aspect of human anatomy. The article can be from a science magazine, newspaper or an internet news source. It must be **current** (less than 2 months old) and must be a **news report** about recent research discoveries. You will turn in the article (or copy) stapled to your summary. **The summary must be typed and double-spaced.** In addition, you will present a brief summary of the news story to the class.

- Topic 1: Cells, Tissues, or Integument
- Topic 2: Skeletal, Joints, or Muscles
- Topic 3: Cardiovascular, Lymphatic, or Immune
- Topic 4: Nervous, Senses, or Endocrine
- Topic 5: Respiratory or Digestive
- Topic 6: Urinary or Reproductive

Some sources of news articles...

- <http://www.sciencedaily.com>
- <http://www.cnn.com>
- <http://www.nytimes.com>
- <http://www.webmd.com/news/default.htm>
- <http://www.news-medical.net>

ADA Statement

Any student with a documented disability who may need educational accommodations should notify the Disabled Student Program & Services (DSP&S) office (760-355-6312, room 2117, Health Sciences Bldg) as soon as possible.

Extra Credit

The only opportunities for extra credit points will be in the form of **bonus questions** on exams.



Grading

Your grade will be based on the total possible points **YOU** have earned (i.e. there will be no curve!). Points will be earned through exams/practicals, lab reports, assignments, in-class activities, and class attendance/participation. The grading scale will be:

- A \geq 90 %
- B = 80-89 %
- C = 70-79 %
- D = 60-69 %
- F \leq 59 %

- ◆ Exams/Practicals: 50-120 pts. each
- ◆ Lab Reports and assignments: 10-15 pts each
- ◆ Oral presentation: 25 pts
- ◆ Attendance, participation, class conduct, misc.: 30 pts.
 - “Participation” means asking questions, answering questions, contributing thoughts and opinions.*
 - “Class Conduct” means following class policies & procedures.*

IMPORTANT: ➤ If your exam average ends up below 60%, you will automatically receive an **“F”** for the course.

➤ If your exam average ends up being between 60-69%, you will automatically receive a **“D”** for the course.



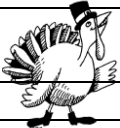
Schedule

IMPORTANT: *Schedule is tentative and subject to change.*

LECTURE @ 1:30

LAB @ 3:00

8/21	Introduction	Language of Anatomy & Word Roots
8/23	Ch 1 – Intro to Anatomy	Metric system review
8/28	Ch 2 – Cells	Anatomy Terms & Word Root Test 3:30
8/30	Ch 2 – Cells; News Articles #1	Cells Mitosis & Meiosis
9/4	Ch 3 – Tissues	Bone ID
9/6	Ch 3 – Tissues	Tissues
9/11	EXAM: metric, cells, cell cycle, meiosis	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
9/13	Ch 5 – Integumentary System; News Articles #2	Integument; Tissue & Bone Review
9/18	EXAM: Bone ID	Open Lab: 1:30 – 2:30 Practical: 4:00
9/20	Ch 6-9 – Skeletal tissue & Joints	Tissue Review; Muscle ID
9/25	EXAM: Tissues	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
9/27	Ch 10-11 – Muscular System; News Articles #3	PRESENTATIONS (Groups 1-3)
10/2	EXAM: Integument, bone tissue, joints	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
10/4	Ch 12-14 – Cardiovascular System	Cardiovascular
10/9	EXAM: Muscular System	Written: 1:30 – 2:30 Practical: 4:00
10/11	Ch 15 – Lymphatic System Ch 16-19 – Nervous System	PRESENTATIONS (Groups 4-6)

10/16	Nervous System cont.	Brain and nerves
10/18	EXAM: Cardiovascular & Lymphatic	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
10/23	Ch 20-21 – Senses	Senses
10/25	Ch 22 – Endocrine System; News Articles #4	Endocrine System
10/30	Ch 23 – Respiratory System	CADAVER OBSERVATION
11/1	EXAM: Nervous System & Senses	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
11/6	Ch 24 – Digestive System; News Articles #5	Digestive System
11/8	EXAM: Endocrine & Respiratory Systems	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
11/13	Ch 25 – Urinary System; News Articles #6	Urinary System
11/15	Ch 26 – Reproductive Systems Ch 4 – Pregnancy & Development	Reproductive Systems
11/20	EXAM: Digestive & Urinary Systems	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
11/22	 NO SCHOOL	<i>(At home turkey dissection)</i>
11/27	CAT dissection	Cont.
11/29	CAT dissection	Cont.
12/4	EXAM: Reproductive Systems & Development	Written: 1:30 – 2:30 Open Lab: 2:40 – 3:30 Practical: 5:00
12/6	CAT Review and QUIZ	Lab will open at 2:00

Keep track of your grades...

DESCRIPTION	MY SCORE	POINT VALUE
8/28 EXAM: Anatomical Language		100
9/12 EXAM: Cells, Metric		120
9/18 EXAM: Bone ID		100
9/25 EXAM: Tissues		120
10/2 EXAM: Integ., Bone Tissue, Joints		120
10/9 EXAM: Muscles		120
10/18 EXAM: Cardio, Lymphatic		120
11/1 EXAM: Nervous, Senses		120
11/8 EXAM: Endocrine, Resp.		120
11/20 EXAM: Digestive, Urinary		120
12/4 EXAM: Reproductive, Development		120
12/6 CAT QUIZ		30
NEWS ARTICLE		15
PRESENTATION		25
DESCRIPTION	MY SCORE	POINT VALUE

<i>When I was absent...</i>	<i>When I was late...</i>