

Principles of Human Anatomy, Tortora & Nielsen, 12th edition Customized Version: *BIOL 204 Human Anatomy Lab Manual*

► Safety glasses

Recommended: 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

- Attendance and punctuality are required. I start on time and expect you to be seated by the time class starts and I begin taking roll. If tardiness becomes a problem, I will start locking out late arrivers.
- Disruptive, inappropriate or offensive behavior of <u>any</u> kind will not be tolerated and may result in your being dropped from the course.
- > No sleeping in class. You will be required to leave the room.
- Electronic devices must remain OFF during lecture and lab. Laptops may be used for note-taking and voice recorders may be used to record lectures.
- > Only **English** may be spoken when lecture or lab is in session.
- > No open food or drink containers are allowed in the classroom or lab.
- Safety glasses must be worn and long hair tied back when dissections are done in lab.

Attendance Policy

- Each lecture & lab is considered a **separate** instructional period.
- Each missed instructional period earns you 2 strikes.
- Each time you are late earns you 1 strike.
- If you reach **12** strikes, you will be dropped from the course.
- If you reach **12** strikes after the drop deadline, you will automatically receive 0/30 attendance/participation points.
- There are no "excused" absences. Every absence counts against you.

Blackboard

Cheating Policy

Evidence of cheating will result in a zero grade for that exam or practical and possible disciplinary action as well.

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, capillaries, 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 cat specimens as subjects.
- 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 **January 27th**.
- The deadline for dropping the course with a "W" is April 13th.

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 tests will include multiple-choice, fill-in, matching and short answer questions. Tests will also include diagrams to label. Labeling must be done in black pen. Most practical questions will be recall-type questions... i.e. "Name the structure."

NO Make-up Exams Will Be Given

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

IMPORTANT: Excluding the first exam, if your exam average ever falls below **50%**, you will automatically be dropped from the course.

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 <u>original</u> <u>pages</u> from the lab manual will be accepted.
- For computer activities, no more than $\underline{2}$ people may work together.
- > For all other activities, no more than $\underline{3}$ people may work together.
- > All group members must participate in **all** activities.
- > ONE lab report is turned in per group.
- 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.

Spelling

Spelling of structures and terms counts on ALL exams. The penalty for each spelling error is $\frac{1}{2}$ point. Scores that end up in the middle of two numbers will be rounded **down**. Example: a point total of 85.5 pts will be recorded as an 85.

Oral Presentation – Body Part Replacements

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.

"In the News" - Current Research in Human Anatomy

Once during the semester, you will be required to find a **news** article related to research in 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) <u>stapled</u> 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.

Good source of news articles... http://www.sciencedaily.com

Extra Credit

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

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.

Gifts

Please note that I am not able to accept gifts of any kind.

Grading

Your grade will be based on the total possible points **YOU** have earned (i.e. there will be no curve!). The grading scale will be:

- $\begin{array}{l} A \geq 90 \ \% \\ B = 80\text{-}89 \ \% \\ C = 70\text{-}79 \ \% \\ D = 60\text{-}69 \ \% \\ F \leq 59 \ \% \end{array}$
- Exams: 100-130 pts. each
- ♦ Lab assignments: 10-15 pts each
- Oral presentation: 30 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 <u>below 60%</u>, you will automatically receive an " \mathbf{F} " for the course.

If your exam average ends up being between <u>60-69%</u>, you will automatically receive a "**D**" for the course.

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

LECTURE @ 2:35

LAB @ 4:00

1/14	Introduction	Language of Anatomy, Word Roots, Grammar
1/16	Ch 1 – Intro to Anatomy	Metric system review

1/21	NO SCHOOL	
1/23	Ch 2 – Cells	Anatomy Terms, Grammar & Word Root Test: 4:30

1/28	Ch 2 – Cells; News Articles #1	Cells Cell Cycle & Meiosis
1/30	Ch 3 – Tissues	Tissues; Bone ID

2/4	EXAM: metric, cells, cell cycle, meiosis	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00
2/6	Ch 5 – Integumentary System; News Articles #2	Tissues

2/11	Ch 6-9 – Skeletal tissue & Joints	Integument; Muscle ID; bone review
2/13		Open Lab: 2:35 – 4:25 Practical: 6:00

2/18	NO SCHOOL	
2/20	EXAM: Tissues	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00

2/25	Ch 10-11 – Muscular System	PRESENTATIONS (Groups 1-3)
2/27	EXAM: Integument, bone tissue, joints	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00

3/4	Ch 12-14 – Cardiovascular System	Cardiovascular
3/6	EXAM: Muscular System	Starts at 3:30

3/11	Ch 15 – Lymphatic System	PRESENTATIONS (Groups 4-6)

	Ch 16-19 – Nervous System	
3/13	Nervous System cont.;	Brain and nerves
	News Articles #3	

3/18	EXAM: Cardiovascular & Lymphatic	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00
3/20	Ch 20-21 – Senses	Senses

Γ	3/25	Ch 22 – Endocrine System; News	Endocrine System; Senses
		Articles #4	
	3/27	Ch 23 – Respiratory System	CADAVER OBSERVATION

SPRING BREAK



4/8	EXAM: Nervous System & Senses	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00
4/10	Ch 24 – Digestive System; News Articles #5	Digestive System

4/15	EXAM: Endocrine & Respiratory Systems	Written: 2:35 – 3:35 Open Lab: 3:40 – 4:40 Practical: 6:00
4/17	Ch 25 – Urinary System; News Articles #6	Urinary System

4/22	Ch 26 – Reproductive Systems	Reproductive Systems
	Ch 4 – Pregnancy & Development	
4/24	EXAM:	Written: 2:35 – 3:35
	Digestive & Urinary Systems	Open Lab: 3:40 – 4:40
	-	Practical: 6:00

4/29	CAT dissection	Cont.
5/1	CAT dissection	Cont.

5/6	EXAM:	Written: 2:35 – 3:35
	Reproductive Systems &	Open Lab: 3:40 – 4:40
	Development	Practical: 6:00
5/8	CAT Review and QUIZ	Lab will open at 2:35

Keep track of your grades...

DESCRIPTION	MY SCORE	POINT VALUE
1/23 EXAM: Anatomical Language		100
2/4 EXAM: Cells, Metric		130
2/13 EXAM: Bone ID		100
2/20 EXAM: Tissues		130
2/27 EXAM: Integ., Bone Tissue, Joints		130
3/6 EXAM: Muscles		130
3/18 EXAM: Cardio, Lymphatic		130
4/8 EXAM: Nervous, Senses		130
4/15 EXAM: Endocrine, Resp.		130
4/24 EXAM: Digestive, Urinary		130
5/6 EXAM: Reproductive, Development		130
5/8 CAT QUIZ		30
NEWS ARTICLE		15
PRESENTATION		30

DESCRIPTION	MY SCORE	POINT VALUE

When I was absent	When I was late