

# ANATOMY 30: ESSENTIALS OF ANATOMY AND PHYSIOLOGY

## COURSE OVERVIEW

Instructor: Mr. Stupy

Fall 2009

Office: NS-112 or LS-130

Lecture Room: LS-109

Voice Mail: (310) 532-3670 x5353

Ticket #: 1002

Recommended Prerequisite: Eligibility for English 1A

Units: 4

Office Hours: M/W: 5:00-5:30pm, T/TH: 1:30-2:00pm, 6:40-7:10pm

### Lecture Textbook:

1. Human Anatomy and Physiology, by Elaine N. Marieb, Eighth Ed., 2010

### Laboratory Book:

1. Human Anatomy and Physiology Laboratory Manual, Fetal Pig Version, by Elaine N. Marieb, Ninth Ed., 2009

### Lecture and Laboratory Handouts:

1. Anatomy Lecture and Laboratory Handouts, by Mr. Stupy

### Supplemental Reading:

1. Lab Manual: A Guide to Anatomy and Physiology Lab, Thomas Rust, Second Ed.
2. The A & P Coloring Workbook, A Complete Study Guide, by Elaine N. Marieb

### Course Description:

Anatomy 30 is a one-semester introductory course that includes a systematic coverage of fundamental physical/chemical principles, basic biological concepts, fundamentals of anatomy and physiology and dissection of a fetal pig. This course is designed for non-professional majors and it may meet the anatomy requirements for the two year RN program or other allied health programs. It is an excellent introductory course for Anatomy 32 and Physiology 31, which are designed for the BSN degree or for the Pre-professional biology student.

### Course Objectives:

Upon completion of the course, the student will be able to:

1. List in sequence and briefly describe each of the levels of biological organization.
2. List and briefly describe characteristics of living systems.
3. Define metabolism and homeostasis and give examples of these life processes.
4. Explain how the cell and living systems are dependent on the study of chemistry.
5. List the general characteristics of a typical cell.
6. Explain how a cell reproduces.
7. Explain how enzymes control metabolic processes.
8. Describe the general characteristics and functions of epithelial, connective, nerve, and muscle tissues.

9. Describe the general characteristics and functions of the ten major body organ systems utilizing human models and dissection of sheep hearts, cow eyes and fetal pigs.
10. Apply basic biological knowledge to the solution of typical clinical problems.

**Student Learning Outcomes:**

Upon completion of this course, students will be able to:

1. Demonstrate proper microscopic techniques to view and identify cells and tissues that compose body organs, explain characteristics of cells and tissue types that make them suited to organ function.
2. Identify the vertebral level at which a needle could be safely inserted to do a spinal tap (lumbar puncture) and give the rationale for choosing that level. The student will also be able to name in proper order the tissues and spaces through which the needle must pass to enter the specific space where cerebrospinal fluid can be withdrawn for analysis.

**Lecture Examinations/Tests:** (500 Points) Five (5) lecture examinations/tests will be given, each worth 100 points, for a total of 500 points possible. Each exam will be of the multiple choice variety with some matching, short answer, fill in the blanks questions and scantron graded. All examinations are non-comprehensive. Each student must provide five (5) scantron answer sheets (Form 882 - available from the bookstore) and two, #2 pencils.

**Lab Examinations (Practicals):** (500 Points) Five (5) lab practicals will be given, each worth 100 points, for a total of 500 points possible. Lab practicals may not be made up.

**Make-Up Examinations/Tests:**

Make-up Lecture Examinations/Tests are specifically discouraged and will be granted only at the discretion of the instructor. A student will be allowed a maximum of one make-up lecture exam which will be graded at a 10% loss. If you must miss the day of the lecture examination, please arrange with me to take the examination the following lecture day after class. There are no Lab Practical make ups.

**Cheating:**

Any student who cheats will receive an automatic grade of zero. Communication of any nature during examinations is considered unacceptable and will result in automatic deductions of 100%.

**Attendance:**

Regular attendance is required by college regulations and is virtually essential to academic success. Any student who misses three (3) class periods may be dropped from the course. Please see me if you have attendance problems.

**Withdrawals:**

While I hope few individuals will find it necessary to withdraw, should this option become necessary, it is the responsibility of the student to withdraw officially through the Admissions Office. Additionally, students who drop must fill out and complete the laboratory drop card filed with the lab technician. An

automatic grade of "W" will be assigned if you withdraw officially prior to the official drop date. Students who stop attending and do not officially withdraw themselves, should expect to receive an "F".

**Study Habits and Reading Assignments:**

Experience indicates that there is a strong relationship between good study habits and high grades. Good note taking ability will be a great advantage, particularly since some of the lecture material is not found in the textbook. It is highly recommended that you at least reread your notes immediately after each class, and strongly suggested that you rewrite your notes or make flash cards. Also, forming small study groups and going to open anatomy labs during the week and on Fridays and Saturdays, enhances grade performance.

**Grading Standards for the Course: (1000-100 = 900 Points Possible)**

- A = 90% - 100%
- B = 80% - 89%
- C = 65% - 79%
- D = 55% - 64%
- F = 0% - 50%

**Lecture Exams/Tests Schedule: (500 Points)**

Exam:	Possible Score:	Your Score:
I	100 points	_____
II	100 points	_____
III	100 points	_____
IV	100 points	_____
Final Exam V	100 points	_____

**Lab Practicals Schedule: (500 Points)**

#1	100 points	_____
#2	100 points	_____
#3	100 points	_____
#4	100 points	_____
#5	100 points	_____

Total Exam Points Possible: (900 Points)      Your Exam Points: \_\_\_\_\_

Note: I will throw out the lowest Lecture Exam or Lab Practicum score, except the Final Lecture Exam and Final Lab Practicum which must count towards your grade.

## Tentative Anatomy 30 (Anatomy and Physiology): LECTURE SCHEDULE

Date	Week	Topic	Chapters
8/31	1	Introduction, Principles of Anatomy and Physiology	1
9/2		Principles of Anatomy and Physiology, Chemistry	1, 2
9/7	2	Labor Day Holiday	
9/9		Chemical Principles, Basis of Life, Cell	2, 3
9/14	3	Cell: Structure and Functions, Cell Division: Mitosis	3
9/16		Cell Transport, Tissues, Anatomical Terms	3, 4
9/21	4	Skin and Integumentary System**	5
9/23		Exam I	
9/28	5	Skeletal System, Long Bone/ Microscopic Anatomy	6
9/30		Skeletal System, Long Bone/ Microscopic Anatomy	6
10/5	6	Skeletal System, Joints; Muscle Tissue	7, 8, 9
10/7		Muscular System and Muscle Tissue	9, 10
10/12	7	Muscular System and Muscle Tissues	9, 10
10/14		Nervous Tissue, Nervous System**	11, 12
10/19	8	Exam II	
10/21		Nervous System (C.N.S.)	12, 13
Note:	***	Indicates new subject material that will covered on the next exam.	

## Tentative Anatomy 30 (Anatomy and Physiology): LECTURE SCHEDULE

Date	Week	Topic	Chapters
10/26	9	Nervous System (P.N.S. and A.N.S.)	13, 14
10/28		Special Senses: Eye and Ear	15
11/2	10	Endocrine System**	16
11/4		Exam III	
11/9	11	Endocrine System	16
11/11		Digestive System	23
11/16	12	Digestive System	23, 24
11/18		Digestive System	23, 24
11/23	13	Cardiovascular System, Heart**	18, 19
11/25		Exam IV	
11/30	14	Cardiovascular System, Blood	19, 17
12/2		Respiratory System	22
12/7	15	Respiratory System, Urinary System	22, 25, 26
12/9		Respiratory System, Urinary System	22, 25, 26
12/14	16	Reproductive System	27, 28
12/16		Final Lecture Exam V (Wed. 8:00 - 10:00 A.M.)	

Note: \*\*\* Indicates new subject material that will covered on the next exam.

Note: Last day to drop with a "W" grade: Friday, Nov. 20th

## LAB SCHEDULE: Anatomy 30 (Anatomy and Physiology)

Date	Day	Topic	Exercises
8/31	1	Introduction, Use and Care of the Light Microscope	3
9/2	2	The Cell: Anatomy and Cell Division (Mitosis), Gen. Body Organization and Anatomical Terms	4, 1
9/7	3	Labor Day Holiday	
9/9	4	Cell Division (Mitosis), Cell Transport Mechanisms	4, 5A
9/14	5	Tissues: Epithelial, Connective and Nerve	6A
9/16	6	Tissues, Integumentary System	6A, 7
9/21	7	Lab Practicum #1	
9/23	8	Synovial Joint, Bone Tissue, Overview of Skeletal System (Axial System)	8, 9, 13
9/28	9	Overview of Skeleton Skeletal System (Axial Skeleton)	9, 10, 12
9/30	10	Skeletal System (Axial and Appendicular Skeletons)	9, 10, 11
10/5	11	Muscle Tissues, Muscular System	14, 15
10/7	12	Muscle Tissues, Muscular System	15
10/12	13	Muscular System	15
10/14	14	Lab Practicum #2	
10/19	15	Nervous System and Nervous Tissue	17, 19
10/21	16	Nervous System	19, 21

## LAB SCHEDULE: Anatomy 30 (Anatomy and Physiology)

Date	Day	Topic	Exercises
10/26	17	Nervous System; Special Senses: Eye and Ear	19, 21, 24, 25
10/28	18	Special Senses: Eye and Ear	24, 25
11/2	19	Practicum #3	
11/4	20	Digestive System	38
11/9	21	Digestive System; Cardiovascular System	38, 30, 31
11/11	22	Cardiovascular System	30, 31, 32
11/16	23	Cardiovascular System	30, 32
11/18	24	Cardiovascular System, Blood Agglutination	30, 32, 29A
11/23	25	Practicum #4	
11/25	26	Respiratory System	36, 37A
11/30	27	Respiratory System, Urinary System	36, 37A, 40
12/2	28	Urinary System, Reproductive System	40, 42, 43
12/7	29	Respiratory, Urinary and Reproductive Systems	36, 37A, 40, 42
12/9	30	Final Lab Practicum #5	
12/14	31	Lecture Review	
12/16	32	Final Lecture Exam (Wed. 8:00 - 10:00 A.M.)	

Last day to drop with a "W" grade: Friday, Nov. 20th

### Disabilities:

If you have a specific learning disability, please contact Special Resource Center at (310) 660-3295 for documentation and let me know ASAP so that we may suitably accommodate your learning needs.

### Mission Statement:

El Camino College offers quality, comprehensive educational programs and services to ensure the educational success of students from our diverse community.