**Human Anatomy (BIOL 230) Section**

**Fall 2023 Course Syllabus**

**Instructor**: Dr. Marie McMahon **Class Meeting Times**: MW 1:00pm to 5:15pm, Rm S6-209

**Voice mail**: (619) 388-7497 **Office Hours**: Room S6-115L (my office) and S6-209

**Email**: mmcmahon@sdccd.edu **Website**: <https://sdmiramar.edu/faculty/marie-mcmahon>

**Course Prerequisites**: A passing (or credit) grade of "C" or better in Biology 107 or equivalent.

Required Text and Materials: Any college level “Human Anatomy” textbook. Anatomy Lab Manual (McMahon, Fall 2023) from Mira Mesa Copy Center, 9363 Mira Mesa Blvd.; ph. (858) 578-0941.

**Deadlines**: Important dates for adding or dropping a class: See Spring Schedule for more information.

Feb 10, 2016 Last day to add with instructor’s permission and to withdraw without receiving a “W”.

Feb 10, 2016 Last day to drop and be eligible for a refund and/or non-resident tuition.

April 14, 2016 Last day to withdraw from the course with an option of “W” grade.

Scope of Course: Biology 230 is the study of Human Anatomy, using a systemic approach. The lectures will predominantly cover functional anatomy within specific systems. The lab sessions will be a “hands on” experience, identifying anatomical structures both macroscopically (gross anatomy) and microscopically. The progression of topics through this course will build on the levels of organization:

**Cells > Tissues > Organs > Organ Systems > Organism**

The 4 primary tissues of the human body, Epithelium, Connective, Muscular, and Nervous, will be studied in detail. How they contribute to the structures of the human body will be studied throughout this course and the following topics will be specifically covered in this order:

**a.** Basic Anatomical Terminology **h.** Sensory System

**b.** Histology (Microscopy) **i.** Circulatory System

**c.** Integumentary System **j.** Respiratory System

**d.** Skeletal System **k.** Digestive System

**e.** Articular System **l.** Endocrine System

**f.** Musculature System **m.** Urinary System

**g.** Nervous System **n.** Reproductive System

**Specified Student Learning Outcome (SLO) for this Course. Students should be able to:**

* Describe and identify the structure and function of the four primary tissues of the human body. The additional objectives below support this central SLO stated.
* Identify macroscopic (gross) and microscopic (histological) anatomical structures of the human body.
* Understand how the concepts of structure (anatomy) contribute to the function of living systems.
* Identify the importance of current research and integrate this with the information we discuss in class.
* Become familiar with an interactive learning environment where we step away from ‘rote’ memorization and find meaning in the new material (often Greek and Latin words) we are learning.

This course is demanding and challenging and will require a lot of time and persistence. However, it is possible to do very well in this course. It is my job to ensure that the pace is reasonable and that the information is delivered in a clear and comprehensible manner. Furthermore, Human Anatomy should be enjoyable! I want every student to succeed in this course, but you must do your part in order for that to happen. Here are some helpful tips you may want to think about:

* Attend lecture and labs, take notes and be prepared to think about the issues presented in class.
* Stay caught up with lecture & lab material. Study every day in order to avoid cramming.
* Create a study group as early as possible and discuss class issues with other students.
* Answer questions in the study guide and don’t hesitate to ask me questions – that’s why I’m here.
* Organize yourself and try to work out a system of studying that is effective for you. It may take trying a few different methods. Don’t be afraid to change a study method if it is not working for you.

**Spelling:** Students in this class will be *expected to spell correctly**and**points will be deducted for spelling errors* in the lab exams. Spelling Insurance is available for laboratory exams for those who wish to participate. The guidelines are as follows:

For any word you wish to have ‘covered’, it must be hand written and spelled correctly 25 times on a piece of paper and must be submitted to me before the exam. To conserve paper, use columns and both sides of the paper. On the first page of your Spelling Insurance include your Name and class section. Also, use headings to indicate the specific region of the body for the structures listed in your insurance. You must staple multiple papers together or it will not be accepted.

**Lectures: 1:00pm to 1:55pm MW**

The lectures will predominantly be used as a time to present the functional anatomical aspects of this course. Many of the concepts introduced and discussed in lecture will be reinforced during the laboratory practical sessions that immediately follow lecture.

Exams – there will be 4 lecture exams (65 to 85pts) and 1 final lecture exam (90pts). *The final exam is not cumulative*, though there will be aspects of review that will be included on the final. Exams are a mixture of multiple choice, fill in, matching and short answer/essay questions. You will need a 50 question scantron for all lecture exams. You can always use the ‘clean’ back of a previously used scantron.

Quizzes – will be based on the recent topics completed during a specific section. They are multiple choice and 10pts each. The lowest quiz score will be dropped. You will need a scantron for all quizzes.

Class Activity and Study Guide Questions – Several class activities and assignments (for points) will be given at 1:00pmm and are only be available to students who ***arrive on time to class***! No Exceptions : ) *Study Guide Questions* are included in the lab manual - they are designed to help direct students to the fundamental issues that were presented in lecture. An understanding of the study guide questions will help to prepare the student for the lecture exam that corresponds to that section.

Faculty Website and Canvass Class Shell – Essentially all the class resources you need will be available to all students on the instructor Website <https://sdmiramar.edu/faculty/marie-mcmahon>

**Laboratories: 2:05pm to 5:15pm MW**

The laboratory component will be used for instruction of anatomical features with a ‘hands on’ approach and an opportunity for students to use microscopes to examine tissue slides (histology), as well as preserved materials including cadavers, models and diagrams. Lab Exams – there will be 5 major Laboratory Practical exams (the 1st one is 50 pts, all others are 100pts). In-Lab Work Assignments – there will be lab assignments to be completed and periodically handed in for points during the practical laboratory component of the class. **Any assignment turned in late will be penalized 10%, and a further 10% for every additional day it is late**.

**General Policies**

Lecture Make Up Exams – If, due to illness or a family emergency you miss an exam, then there will be **one** opportunity to make-up a Lecture exam. There will be a 10 % penalty applied to any grade on a make-up exam, regardless of the reason for missing the exam. These make up exams will be different than the original. *Always try to let me know of a “situation” (work, family, health, etc.) that may arise beforehand if possible, so that something fair can be worked out.* We can collaborate and resolve issues, easy!

There are No Make Up Exams for Lab Practicals – Please do not miss a lab exam as there will be **no** opportunity to make up any missed lab exams because they require extensive time and an entire lab to set up, once they are over, they are removed and no longer accessible! If you miss a lab exam you will receive zero for it.

Attendance Policy – Anything over two absences (which includes arriving late and leaving early) will result in students being dropped from the class: Note: It is also your responsibility to drop the course. Organize yourself so that you are not late for lectures, labs, exams and quizzes. If you arrive late for any exam or quiz, you will not be given extra time and you might not be allowed to take it at all, depending on how disruptive it is for the class, myself included.

Please note: There will be 10 points deducted from your total any time that your phone rings or you send or read text/email/phone messages or use this technology during class. So …

***Please turn off or silent your cell phones/technology while in class.***

***Sending, reading text or using devices is not allowed in class.***

 ***Thank You!***

Academic Integrity – Integrity and honesty are essential to the academic process, thus it is imperative that the work you submit is your own. Students found cheating will receive an **F** (zero) for that assignment or exam. This can affect your performance in the entire course. “Cheating” includes but is not limited to: Revealing test questions or soliciting another person to reveal test questions, copying another person’s work or allowing someone to copy your work, possession or use of unauthorized materials.

Conduct and Behavior – Any disruptive student will be asked to leave the classroom in accordance with our **BP 3100 policy**. If there are any significant issues of concern, the dept. chair and both the dean of the School and of Student Services can be called upon for guidance and assistance.

Disability Services – Any student with a disability who may need academic accommodation or advice should contact the instructor and the Disability Support Programs and Services (DSPS) Office during the first week of class. Refer to the Miramar College 2023-24 Catalog for more information.

###### Grading Policy

The final grade is based solely on the total number of points accumulated from quizzes, tests, assignments activities and exams. The lecture and lab components are combined for one total. The grades are calculated as a percentage of your scores over the total available points, as follows:

90-100% = A; 80-89% = B; 70-79 = C; 69-55% = D; ↓ 54% = F

There is **no** extra credit work. There is already enough to learn in this course without the *extra* work!

All lecture exams are returned to the instructor after the class has had an opportunity to review them. This is to ensure the integrity of the examination process for future classes. The exams are kept on file for a year and can be accessed at any time during the semester. *Please ask permission to voice-record lectures for any instructor and please do not video-tape my lectures or photograph exams. Thank you.*

Student Facilities – There are tutors, Anatomy Models and Microscopes available for anatomy students at the **Academic Success Center**, located in the Library and Independent Learning Center (ILC) room L-101. These facilities are here for you as students to use – please take advantage of them.

Laboratory Health, Safety and Responsibilities – During the first lab meeting, students will be given a handout explaining the department’s policies and guidelines regarding safety in the laboratory and breakage of lab materials. The students will discuss those procedures in class with the instructor. Before the second lab class begins, all students must sign the required form stating that they understand and accept the department’s Lab Safety policies. Good lab practices, such as responsible handling of equipment, models, slides and chemicals, in addition to appropriate cleaning up after all labs, are expected of every student. Points will be awarded for good lab etiquette and class participation.

*Student Care of the Microscopes and Anatomy Lab Models – Taking good care of the lab equipment is very important. This is particularly relevant for the* ***Microscopes*** *and the* ***Anatomical Models*** *in our lab.*

* *There are explicit instructions for the proper storage and use of the microscopes in the lab manual and on the door of the microscope cabinets. These must be followed by all students.*
* *Each anatomy model in our lab has a unique number on it and has an exact space where it sits in the model cabinets. At the end of each lab session, all models must be placed back in their correct space.*

*At the end of each lab session, the instructor will check to ensure that all Microscopes and Anatomical Models are put away properly. Up to 25 points may be involved for proper care of equipment.*

**Student Grade Recording**

All points from lecture and lab are combined into one total. It is easy to calculate and to keep track of your current percentage grade in this class, and this is your responsibility - if you need assistance, please ask me and I will be happy to help you. Updated grade sheet will be routinely presented.

**Instructions:** The list below is for you to keep track and record your scores on each lecture and lab exam, quiz, assignment, etc. To get your percentage for a particular assignment, divide your score by the total points (then times 100). You can then calculate your current percentage for all of the quizzes and exams as the class progresses. The total points available in this class are estimated to be from 900 to 1,000 pts.

Keep track of your scores and record them here.

## Lecture Schedule\* for Human Anatomy (CRN: 72862), Fall 2023

## Week Date Lecture Topic *\*Tentative* Chapter in Text

**1** M 1/30 Introduction; Review Cells. Anatomical Position, Body Planes 1, 2

W 2/1 Tissues: Epithelial and Connective Tissues 3

**2** M 2/6 Tissue Histology; Membranes; Fasciae 3

W 2/8 Integumentary System 4

**3** M 2/13 Integumentary System: Accessory Structures; Burns 4 W 2/15 Bone Structure, Development, Growth and Maintenance 5

**4** M 2/20 **Washington** **Presidents' Day Holiday**

W 2/22 **Exam I**: (From Chapters 1, 2, 3 and 4)

**5** M 2/27 Bone Terminology, Classification; Axial Skeleton 5, 6

 W 3/1 Axial and Appendicular Skeleton: Articulations (Joints) 7, 8

**6** M 3/6 Anatomy and Functions of Skeletal Muscle, Terminology 9

W 3/8 Levers in the Body; Axial and Appendicular Musculature 10, 11

**7** M 3/13 Muscle Action, Origin, Insertion and Innervation 10, 11

W 3/15 **Exam II**: (From Chapters 5, 6, 7, 8, 9, 11)

**8** M 3/20 Nervous System Overview: Neurons and Glial Cells 13

W 3/22 Nervous System: Spinal Cord; CNS and PNS 14

M/W 3/27- 4/2 **Thanksgiving Break**

**9** M 4/3 Cranial and Spinal Nerves; Cranial and Spinal Meninges 15, 16

W 4/5 Autonomic Nervous System: Special Senses: Endocrine 17, 18, 19

**10** M 4/10 Special Senses: The Eyes/Vision and Ears/Hearing 18

W 4/12 **Exam III**: (From Ch 13, 14, 15, 17, 18)

**11** M 4/17 Cardiovascular System, The Heart 21

W 4/19 Systemic and Pulmonary Systems; Arteries and Veins 21, 22

**12** M 4/24 Circulatory System: The Lymphatic System 23

W 4/26 Respiratory System 24

**13** M 5/1 Histology of the Respiratory System 24

W 5/3 **Exam IV**: (From Ch. 21, 22, 23, 24)

**14** M 5/8 Digestive System: The Gastrointestinal Tract 25

W 5/10 Digestive System: Histology/Accessory Structures of G.I. Tract 25

**15** M 5/15 Urinary (Renal) System 26

W 5/17 Male and Female Reproductive Systems 27

**16** M 5/22 Review for Final Exams (Ch. 24, 25, 26, 27)

W 5/24 **Final Lecture Exam**

**Laboratory Schedule\* for Human Anatomy (CRN:), Fall 2023**

**Week Date Laboratory Exercise** *\*Tentative* **Reading**

**1** M 1/30 Unit 1: Terms, Cells, Microscopy Lab Manual

W 2/1 Unit 1: Tissue Histology: Epithelial and Connective Tissues Ch. 1

**2** M 2/6 Unit 1: Integumentary; Unit 2: Skeletal System Histology Lab Manual

W 2/8 Unit 2: Skeletal System and Bone Histology Lab Manual

**3** M 2/13 Lab Practical **Exam I**: (Unit 1)

W 2/15 Unit 2: Skeletal System and Bone Structures (Bony-Landmarks) Lab Manual

**4** M 2/20 **Washington** **Presidents' Day Holiday**

W 2/22 Unit 2: Skeletal System and Bone Structures Ch. 6

**5** M 2/27 Unit 2: Skeletal System and Bone Structures Ch. 7

 W 3/1 Articulations (Joint Structure) Ch. 8

**6** M 3/6 Unit 3A: Human Muscular System Ch. 9

W 3/8 Lab Practical **Exam II**: (Unit 2)

**7** M 3/13 Muscular System: Histology: Cat Dissection

 W 3/15 Unit 3B: Cat Dissection, Models, and Cadavers Lab Manual

**8** M 3/20 Cat Dissection, Models, Cadavers Lab Manual

W 3/22 Unit 4A: The Nervous System Ch. 13

M/W 3/27 - 4/2 **Spring Break**

**9** M 4/3 Unit 4A: Histology of The Nervous System Lab Manual

W 4/5 Lab Practical **Exam III**: (Units 3A, B and 4A)

**10** M 4/10 Unit 4A: Spinal Nerves and Cranial Nerves Lab Manual

W 4/12 Unit 4B: Special Senses; The Eyes and Vision Lab Manual

**11** M 4/17 Unit 4B: Special Senses; Ears and Hearing Ch. 18, 19

W 4/19 Unit 5A: Cardiovascular System, The Heart Lab Manual

**12** M 4/24 Cardiovascular System: Sheep Heart Dissection Lab Manual

W 4/26 Lab Practical **Exam IV**: (Units 4A, B and 5A) Lab Manual

**13** M 5/1 Blood Vessels and the Lymphatic System Ch. 21

W 5/3 Unit 5B: Respiratory System Ch. 24

**14** M 5/8 Unit 6A: Digestive System Histology Ch. 25

W 5/10 Unit 6A: Digestive System Histology (Cat Dissection) Ch. 25

**15** M 5/15 Unit 6B: Urinary (Renal) System Ch. 26

W 5/17 Unit 6B: Male and Female Reproductive System Ch. 27

**16** M 5/22 Review for Final Exams (Units 5A and B, 6A and B)

W 5/24 Lab Practical **Exam V**: (Units 5B, 6A and B)