

# **Biology 221: Anatomy and Physiology I (Online)**

- *Details:* Online courses will be structured and you will have access to "units" of material as they open. You will NOT be able to finish all of this material in one week.
- Instructor: Dr. Joseph Mehus Office: -Phone: (701) 788-4802 Email: joseph.mehus@mayvillestate.edu Office Hours: Arranged via appointment, email will be checked daily, if you foresee an upcoming emergency please plan ahead of time. Email is the preferred means of contact.

**Greetings Everyone!!!** Please take your time while working through the material in this course, but remember that this is a semi-structured course. Before the exams open, you will **need** to have read the chapters, reviewed the lectures, done the study guides and complete the online quizzes. If you have not completed the necessary tasks, the exam will NOT open for you until you have completed the necessary tasks. **Failure to do this will result in missing a test.** Tests will not be re-opened because you were "too busy" to take an exam or finish the necessary materials. It is possible to take a test early if you have finished all prerequisite materials and the test has been uploaded.

This class will test your abilities to be responsible. I will not send individual reminders to students to take exams, complete study guides, take quizzes, or review lectures. If an emergency occurs and you miss a test (emergencies count as accidents requiring hospitalization, death of IMMEDIATE (grandparent, parent, spouse, sibling, child) family member, sickness that requires hospitalization, military deployment, legal (court appointments)), it is possible to make up ONE exam. Documentation for all excused absences is REQUIRED. I reserve the right to change the format of the make-up test. **You are 100% responsible for fitting in the course material and meeting deadlines all while maintaining your personal obligations.** Please plan this course accordingly for your successful completion.

## Course Description:

This is an advanced course that acquaints students with the structure, function, and disease processes of: nerve tissue, central nervous, endocrine, digestion, urinary, reproduction, development and genetic systems in the human body. This course will also investigate the impact of environmental influences on the human body as well as the effects of the environment and genetics on disease processes. If taken "On-Campus" this course includes 3 lecture hours and 2 lab hours per week.

## Study Guides:

Study guides will be provided for each chapter. These study guides will be submitted ONLY in Microsoft Word format. Study guides will be delivered to students via Moodle. Students may use the textbook or any other resource available to determine the correct answers or to fill out/explain concepts on the study guides. **Every single question/idea answered on a study guide needs to be put into your own words. Copy and paste is plagiarism.** Study guides for each chapter are to be filled out and submitted into the Moodle "Drop Boxes." You are REQUIRED to fill out study guides before taking chapter quizzes. Once you have submitted the study guide for a chapter, a quiz will open. Take the quiz and, when you are ready, the exam should be open for you to take. Remember, you need to proceed through the material in the following order for each unit of this course:

Lecture/Video Lecture Study Guide Quiz Exam

Course Objectives and intent of the course are that successful students will:

- Understand the organization and functioning of the nervous system
- Be able to explain the processes of the special senses
- Understand the organization and functioning of the endocrine organs, including the functions of major hormones.
- Understand the organization and function of the digestive system, including the roles of different nutrients.
- Understand the organization and functioning of the excretory system, especially the function of the kidney in producing urine.
- •Understand the organization and functioning of both the male and female reproductive system, including the processes of ovulation, menstruation, childbirth, and lactation.

These learning objectives are in support of the institutional student learning objectives, especially SLO#1, which have been established for a biology majors and essential studies.

- SLO #1: Students will acquire a content knowledge base in the traditional biology core commensurate with career goals.
- SLO #2: Students will communicate scientific information both orally and in writing.
- SLO #3: Students will apply quantitative or qualitative theories of science to a broad variety of biological problems (including experiential component).
- SLO #4: Students will construct and critically analyze scientific arguments.

• SLO #5: Students will integrate technology appropriate to their major into their work products.

### **Required Texts:**

Visual Anatomy and Physiology 1<sup>st</sup> ed. Martini & Ober, Pearson Publishing

### Moodle Class Material:

We will utilize the Moodle website (<u>http://lms.ndus.edu/course/view.php?id=6191</u>) to distribute Powerpoint slides, study guides, and other materials. It will also be used to administer quizzes in addition to exams. All assignments will be submitted through moodle.

### Grading:

Grades will be based on exams, guizzes, pop guizzes, and possible critical thinking questions. Quizzes/study guides/supplementary materials/lecture power points/video lectures will be offered through Moodle. Chapters covered on each exam will each have their own quiz. They need to be completed before the exam will open to you. Class activities may include class discussions (in Moodle), where participation will be required. Some activities will be announced in advance and supporting material will be made available. Exams can only be made up in extreme circumstances, and each student is only allowed to make up one exam during the semester. In the event that a makeup is needed, the student must take the exam within one week. After that time the total possible points for the exam will decrease by 10% each subsequent day. Make up exams may be offered in a different format than the original exam, including but not limited to essay or short answer. Late assignments of any kind will not be accepted. IT IS IMPORTANT FOR YOU TO CHECK YOUR GRADES ON MOODLE. IF YOU FIND THAT I HAVE MADE A MISTAKE WHILE ENTERING YOUR GRADE, YOU WILL HAVE ONE WEEK TO BRING IT TO MY ATTENTION, AFTER THAT GRADES ARE LOCKED IN MOODLE.

The final grade for the semester will be composed of the following:

	Exams (5)	500 pc	oints	
-	Quizzes (10)	150 pc	oints	
	Study Guides (10)	200 pc	<u>oints</u>	
	Total	850 pc	850 points	
		Grades (%):	90-100	А
			80-89	В
			70-79	С
			60-69	D
			< 60	F

### **Required Work:**

This is not a course where you can expect to succeed without reading from the textbook. Lectures have been composed from the textbook that you can use to help you through the reading. These lectures will allow you to focus on main points in the chapters. There will be video/audio lectures as well that are recordings of me giving the lectures during the courses. These videos will help students who want to cover the material but are audio/visual learners. You are expected to utilize either the lectures or the video lectures. They will help when you are filling out the required study guides. Study guides must be completed and submitted to the appropriate Moodle "Drop boxes" before the corresponding exams will open. Likewise, all quizzes in a given section must be taken before the exam will open.

#### Exams:

There will be 5 exams during this course. Exam 1 will cover chapters 11-12, exam 2 will cover chapters 13-14, exam 3 will cover chapters 15-16, exam 4 will cover chapters 21-23 and exam 5 will cover chapters 25-26. Exam 5 may also contain information from previous chapters, thus being semi-cumulative. Proctors for this course will NOT be used. Instead, we will be using a proctoring tool in Moodle called Tegrity (also the tool used to record lectures). Please see the Tegrity file for instructions for using Tegrity. You will need a valid photo ID prior to taking exams. You are REQUIRED to have a webcam for recording yourself while taking exams.

#### **Classroom Environment:**

I believe that an open and inviting classroom environment is the best way to promote learning. For that reason I encourage questions and class discussions on Moodle, but I expect everyone to respect one another and each other's opinions. *Vulgar language/images on message boards in Moodle WILL NOT be tolerated.* 

# **INTASC:**

	INTASC PRINCIPLES
1	The teacher understands the central concepts, tools of
	inquiry, and structures of the discipline(s) he/she teaches and
	can create learning experiences that make these aspects of
	subject matter meaningful for the student.
2	The teacher understands how children learn and develop,
	and can provide learning opportunities that support their
	intellectual, social, and personal development.
3	The teacher understands how students differ in their
	approaches to learning and creates instructional opportunities
	that are adapted to the diverse learner.
4	The teacher understands and uses a variety of instructional
	strategies to encourage students' development of critical
	thinking problem solving, and performance skills.
5	The teacher uses an understanding of individual and group
	motivation and behavior to create a learning environment that
	encourages positive social interaction, active engagement in
	learning, and self-motivation.
6	The teacher uses knowledge of effective verbal, nonverbal,
	and media communication techniques to foster active inquiry,
	collaboration, and supportive interaction in the classroom.
7	The teacher plans instruction based upon knowledge of
	subject matter, students, the community, and curriculum
	goals.
8	The teacher understands and uses formal and informal
	assessment strategies to evaluate and ensure the continuous
	intellectual, social, and physical development of the learner.
9	The teacher is a reflective practitioner who continually
	evaluates the effects of his/her choices and actions on others
	(students, parents, and other professionals in the learning
	community) and who actively seeks out opportunities to grow
	professionally.
10	The teacher fosters relationships with school colleagues,
	parents, and agencies in the larger community to support
	students' learning and well-being.

### **Instructional Strategies:**

**Strategies** We will use the following methods to assist you in your learning anatomy and physiology. (INTASC 1, 2, 3, 4, 7, 8)

- Direct instruction
- Indirect instruction
- Interactive instruction
- Experimental learning
- Guided and independent study
- Cooperative learning activities
- Class Discussions
- Chapter Exams
- Application
- Inquiry approach
- Simulations
- Questioning skills
- Case Studies
- Instructional strategies

### Important Student Information

"Important Student Information" can be found in your Moodle course shell.

Aorta

Pulmonary Artery

-Left Atrium

Aorta

**Bight Ventricle** 

- Pulmonary Veins

Left Ventricle

Pulmonary Art

Vena Cava

Pulmonary Vein

- ✓ English Proficiency and Other Academic Concerns
- ✓ Students with Disabilities
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)