Biology 221L: Anatomy and Physiology II Lab (Online) Summer 2017

Joseph Mehus

Details: Online – 1 Credit

Instructor: Joseph Mehus
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Hours of Availability: 10-11am MW CST or by appointment/arrangement
Preferred Method of Contact Email

Required Texts:
Lab Protocols will be provided to students. It is VERY beneficial to have the textbook (Visual Anatomy and Physiology, Martini,Ober, Nath 2nd ed) when filling out lab materials, worksheets, and quizzes. Online sources may be used to fill out lab assignments. http://www.mayvillestatebookstore.com/home.aspx

Instructor/Student Communication/Timely Feedback

- Students are accountable for all academic communications sent to their Mayville State University e-mail address.
- Faculty response time will be between 24-72 hours based on whether contact was made during the work week or on weekends.
- Assignments (study guides, quizzes, exams, assessment activities and any other activities for points) will be graded within 2 weeks of submission. This means that if you submit a lab right before a due date or lab practical due date it may not be graded before the exam is due. Work hard on all assignments and do not plagiarize. Plagiarism on ANY portion of the student work will result in a zero on the entire assignment. Pride in your work is expected.

Course Description:
BIOL 221L ANATOMY AND PHYSIOLOGY II LAB (CCN) 1 S.H.
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. The on-campus section of this course includes two lab hours per week. Spring on campus; Fall, Spring, Summer online

Detailed Description of the Course:

Labs will vary. Some will consist primarily of material intended to introduce you to the structure and function of organs and/or organ systems. These will be "dry" labs, written exercises in which you will complete online quiz-like activities that will be computer-graded. Quizzes may also include "essay-type" questions. Dissections or "wet" Labs may require Lab Reports, Lab Quizzes, or both. Where required, Lab Reports must be completed and submitted with required photos to the digital drop box. There may also be long-answer questions or data tables, which you will complete and include in the online report. Some labs will use materials found within the home, and there will be a sheep brain, cow eye, and fetal pig, included in the lab kit you must purchase, which will be dissected. For labs, which would normally involve microscopy, the digital images will be provided, with procedures modified to concentrate on interpretation of the visual information. **Lab quizzes may be part of some labs, and when labs are completed, the quiz must be taken. Both labs and lab quizzes have the same due dates/times. So waiting until the last minute will NOT work for you!!! You will need to finish the lab early so that you can take the lab quiz that may follow.** A scoring guide or rubric may be provided for each wet lab, which will help you to understand what is expected in the lab report, and to do well in the lab. The rubric should be reviewed before completing the lab procedure. It is essential that you follow procedures carefully, submit all required photograph in which all required structures are clearly visible, and answer all parts of all questions.

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

- Identify structures and functions of the nervous system
- Be able to explain the structures 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 regions of 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.

Lab Policies

- ***Labs must be completed.*** Missing three (3) or more labs will result in a ***failing grade***.
- There will be ***no lab make-ups under any circumstances*** once the week of the lab is over.
- ***You will not be able to make up the missed points.***
- You must submit lab information/materials/photographs/assignments to get credit**.** Please read the labs carefully to make sure you are submitting everything you need.
- Safety: Dissection tools are sharp. Handle with care. Also, when doing your labs, you should not eat, drink or smoke. Try to minimize contact between your hands

and mouth during the lab procedures, especially when working with chemicals or reagents.
- Treat all lab materials and specimens with care and respect.

The entire Academic Program Student Learning Outcomes (SLO) document can be found in your Moodle course shell. The document has an index so you can quickly find the degree you are pursuing. **These learning objectives are in support of the institutional student learning objectives, especially SLO#4, which have been established for a biology majors and essential studies.**

- SLO #1: Students will demonstrate knowledge of human cultures and the physical and natural world through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts. This is focused by engagement with big questions, both contemporary and enduring.
- SLO #2: Students will demonstrate intellectual and practical skills, practiced extensively across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance.
- SLO #3: Students will demonstrate personal and social responsibility, anchored through active involvement with diverse communities and real-world challenges.
- **SLO #4: Students will demonstrate Integrative and Applied Learning, including synthesis and advanced accomplishment across general and specialized studies. This is demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems.**

Grading:

Grades will be based on two exams, lab assignments and lab quizzes. ***There will be no make-ups for lab practical exams, except under extreme circumstances (medical, legal or military). You can only make up one exam during the semester and it must be during the exam week. You must take both lab practicals to pass the course.*** The grading scale is the typical 90% = A, 80%=B, 70%=C, 60%=D, <60%=F. **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.**

Practical Exams (2)	100 (2 worth 50 points)
Lab Quizzes (10)	60 (4 worth 15 points)
Assignments	175 points (5 worth 10 points, 5 worth 25 points)
Total	335 points

Moodle Class Material:

We will utilize the Moodle website (http://lms.ndus.edu/course/view.php?id=6191) to distribute PowerPoint slides, study guides, and other printed materials. It will also be used to administer quizzes.

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.

- ✓ 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)
- ✓ Starfish

All Lab Reports, Lab Quizzes and Lab Exams must be completed by the scheduled due dates as listed on the course schedule posted on the course Moodle site (and found at the bottom of this syllabus). Activities will be turned off as of 5pm CST on those due dates and no credit will be available for those activities after the due dates. If an emergency situation occurs, which affects your participation in this course, contact us immediately. Be prepared to provide proof (documentation). Being busy is not an emergency. For the purposes of this course an emergency situation is an unexpected, unpreventable and significant occurrence, which realistically prevents you from completing required coursework by its due date. You are expected to be aware of due dates and manage the required coursework within your personal schedule and obligations. For example, not submitting any coursework for 3 weeks and then not being able to submit it during week 4 because of an emergency that week is not acceptable.

Course Improvements Based on Most Recent Assessment Findings:

During previous offerings of this course, students have done well.
Even though students have met expectations in the course, I will be spending more time explaining diagrams that are pertinent to the education of students. I would prefer to see structure identification and function scores to be higher. In addition, oral communication

skills of students were assessed for content knowledge, vocabulary, presentation skills and preparation. Students exceled in oral communication as long as they took the time to use their own words to explain terminology.

Enrollment Verification/Proctor Notification

Students will be required to submit introductions to confirm their enrollment in the course. This course does NOT use proctors as the instructor is the proctor.

Learning Experiences

Describes the actions students will be taking to interact with the content. For example:

- Read all assignments prior to class, including chapters as noted, research articles, etc.

Assignments will be given on Moodle OR in class. Submit all assignments during the lab period and grades will be given at that time.

Course Schedule:

NOTE: This is a **tentative** schedule. It may change based on instructor's schedule.

Week of	Lab Topic	Due Dates
	Lab 1 – Neurons/Nervous System	**6/4/17**
	Lab 2 – Brain Dissection	**6/9/17**
	Lab 3 – Olfactory, Gustatory, Hearing, Equilibrium	**6/14/17**
	Lab 4 – Ear, Hearing, and Equilibrium will require help from another individual	**6/19/17**
	Lab 5 – Eye Dissection and Vision Once Lab 5 is submitted, Lab Practical 1 opens (Due Date 6/26/17 5pm CST)	**6/24/17**
	Lab 6 – Endocrine System	**6/29/17**
	Lab 7 – Digestive System/Fetal Pig Dissection	**7/1/17**
	Lab 8 – Urinary System/Kidney Dissection	**7/6/17**
	Lab – 9 Male & Female Reproductive Systems	**7/11/17**
	Lab 10 – DNA Extraction (Home Supplies) Lab Final Due (7/26/17 5pm CST)	**7/16/17**

Lab Examinations

Two open-book exams must be completed during the semester. The first will be associated with materials covered in the labs up to and including the eye ball dissection, and the final exam will cover the remaining labs. Materials to be considered in writing the exams will include both objective materials learned during the labs, and applications associated with the structures and systems studied. Identification of structures in

photographs and line art is included in the exams. **You do NOT need to make Tegrity recordings for lab exams.**

As a student you are expected to:

- Begin the lab course when the semester begins.
- Order your lab kits from the MSU Bookstore before the course starts. Check your lab kit for all enclosed items when it arrives. **Contact the MSU Bookstore immediately if all items are not present and intact**
- Answer questions appropriately: Some lab report answers may be given without full sentence structure where appropriate to the questions asked, but must clearly answer all parts for the question, contain correct spelling and display appropriate grammar and word usage. Answers to other questions, such as essay questions or short answer questions, which ask students to "explain", "compare" or "describe", should display appropriate sentence structure and logical development of thought. **Every single answer needs to be put into your own words. Copy and paste is plagiarism and will receive a score of ZERO**
- Check your Mayville State email and the ANNOUNCEMENTS forum on the course home page a minimum of three times weekly to remain current on course information and changes.