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LAB SYLLABUS

Term: FALL 2016

Course: BIO 300A - Human Anatomy & Physiology 1 Lab

Instructor Information:

Instructor Name	Dr. Ahmed Lakhani
Office Number:	Room 333
Phone Number:	219-473-4275
Email:	alakhani@ccsj.edu
Hours Available:	Office hours will be posted outside my office (Room 333) and also available on Blackboard (BB)
Instructor Background: B.S. in Biochemistry & Minor in Chemistry; University of Illinois at Urbana-Champaign. Ph.D. University of Illinois at Chicago (Physical Chemistry 2011). Research Interest: Structures Elucidation of Bio system, optical Spectroscopy	

Course Information:

Course Time:	Lab: Wednesday: 10:15 – 11:45 am
Classroom:	Lab: Room 336
Prerequisites:	Placement into MATH 103 or higher, C or better in BIOL 115 and BIOL 115L
Required Books and Materials:	Mader's Understanding Human Anatomy & Physiology, 8 th ed. by Susannah Nelson Longenbaker

Learning Outcomes/ Competencies:

Students will have demonstrated the ability to:

1. Identify and describe the levels of organization of the human body
Identify and describe and apply basic principal of chemistry as they relate to human anatomy and physiology
2. Identify, describe, and explain cell structures and their functions.
3. Identify, describe, and explain tissue structures and function
4. Identify, describe, and explain the structure and function of the integumentary system.
5. Identify, describe, and explain the structure and function of the integumentary system.
6. Identify, describe, and explain the structures and functions of the bones **and** joints.
7. Identify, describe, and explain structures and function of the muscular system
8. Identify, describe, and explain the structures and function of the nervous system
9. Identify, describe, and explain the structure and function of the special sense

Learning Outcomes/ Competencies:

By the end of this course, students will be able to be half way between the beginning stage and mastery of the following programmatic outcomes:

1. Research Skills and Problem Solving Ability:

- Students will demonstrate advanced understanding of a range of technical and conceptual approaches used in biomedical research.
- Students can design, carry out, and interpret research projects that generate new knowledge that advances the biomedical sciences and human health.

2. Specific Expertise:

- Students can articulate the significance of their own work to their chosen research area in both historical and forward-looking contexts.
- Students will demonstrate mastery of a range of technical and conceptual approaches used in their selected research area.

Communication:

- Students will demonstrate the oral, written and media communication skills required to be effective communicants, teachers and mentors of peers, future scientists and scientifically literate citizens

3. Career Preparation:

Students can articulate an appropriate set of desired potential career paths, and are aware of the preparation and initiative required to pursue these paths

By the end of this course, students will be able to master the following both in the course outcomes and programmatic outcomes:

1. Scientific Knowledge and Critical Thinking:

- Students will demonstrate the ability to accurately and critically evaluate their own scientific work and the work of others.

2. Ethics and Advocacy:

- Students will improve their confidence and interactions with colleagues and the public.
10. Students will be able to advocate for the role of science in medicine and society

Course Description: A 1-credit course. BIOL 300L is the lab in which students will reinforce their learning of the normal histology, gross anatomy, and physiology of each body system within the human organism. Emphasis is placed on homeostatic mechanisms as they relate to health and disease along with the central nervous system. The focus also includes looking at the structure and function of the human body, and of underlying biological principles. The structure and function of mammalian cells and tissues and the human skeletal, muscular and nervous systems are discussed. The integration of the functions of the various systems is also emphasized.

Learning Strategies: Blackboard, Technology, Service Learning, Group Discussions, Team Projects, Collaborative Learning, and Lecturing

Experiential Learning Opportunities: following experiential learning activities are used in this class: problem-based learning, and project-based learning activities.

Assessments:	
Major Assignments:	There will be approximately 7 – 8 (points will be adjusted accordingly) major assignments. Each student will be expected to solve them on his/her own time. Some of the problems will be used as examples in class. Students should come to the office and ask for help if there is a need for

	assistance in solving problems assignments.	
Class Participation	our participation is expected and required. You are responsible for doing the reading in advance, and taking an active role in class activities and discussion.	
Grading Scale		
	100 – 92: A	91 – 90: A-
89 – 88: B+	87 – 82: B	81 – 80: B-
79 – 78: C+	77 – 72: C	71 – 70: C-
69 – 68: D+	67 – 62: D	61 – 60: D-
59 and below	F	

Course grading and Exams: Final grades are determined from the total points acquired from exams, quizzes, lab reports, and homework. The number of points possible is shown below:

Graded Assignment	Points possible
~8 Lab performance (@ 25 points each)	275 points
~8 Homework Assignments (80 pt. max)	80 points
~8 quizzes (@ 10 points each)	80 points
2 Exams (@ 100 points each)	200 points
Final comprehensive exam	200 points
Total	835 points

Lab Schedule

Week	Topic
1	Introduction to Class/Microscopy
2	Organization of the Body
3	Cell Structure and Function
4	Body Tissues and Membranes
5	Exam 1 is carried over into lab time
6	Integumentary System
7	Skeletal System
8	Muscular System
9	Exam II is carried over into lab time
10	Nervous System
11	Sensory System
12	Endocrine System
13	Thanks Giving Break
14	Review
8 – 13 Dec.	Final Exam

Note* The lab schedule is tentative. The instructor reserves the right to change this syllabus at any time. Any changes will be announced in class in advance.

Responsibilities	

Attending Class	<p>You cannot succeed in this class if you do not attend. We believe that intellectual growth and success in higher education occur through interaction in the classroom and laboratories. However, we do not want to penalize students for participating in college-sponsored events. When you miss class because of a college event, you must give notice of your absence in advance, and you are responsible for all missed work. Being absent doesn't excuse you from doing class work; you have more responsibilities to keep up and meet the objectives of this course.</p> <p>Attendance is mandatory. Three (3) unexcused absences will result in an administrative withdrawn from the course.</p>
Turning In Your Work	You cannot succeed in this class if you do not turn in all your work on the day it is due.
Using Electronic Devices	Electronic devices can only be used in class for course-related purposes. If you text or access the Internet for other purposes, you may be asked to leave, in which case you will be marked absent.
Participating in Class	You must be on time, stay for the whole class and speak up in a way that shows you have done the assigned reading. If you are not prepared for class discussion, you may be asked to leave, in which case you will be marked absent.
Doing Your Own Work	<p>If you turn in work that is not your own, you are subject to judicial review, and these procedures can be found in the College Catalog and the Student Planner. The maximum penalty for any form of academic dishonesty is dismissal from the College.</p> <p>Using standard citation guidelines, such as MLA or APA format, to document sources avoids plagiarism. The Library has reference copies of each of these manuals, and there are brief checklists in your Student Handbook and Planner.</p> <p>PLEASE NOTE: All papers may be electronically checked for plagiarism.</p>
Withdrawing from Class	After the last day established for class changes has passed (see the College calendar), you may withdraw from a course by following the policy outlined in the CCSJ Course Catalog.

Resources	
Student Success Center:	The Student Success Center provides faculty tutors at all levels to help you master specific subjects and develop effective learning skills. It is open to all students at no charge. You can contact the Student Success Center at 219 473-4287 or stop by the Library.
Disability Services:	Disability Services strives to meet the needs of all students by providing academic services in accordance with Americans with Disabilities Act (ADA) guidelines. If you believe that you need a "reasonable accommodation" because of a disability, contact the Disability Services Coordinator at 219-473-4349.

<p>CCSJ Alerts:</p>	<p>Calumet College of St. Joseph's emergency communications system will tell you about emergencies, weather-related closings, or other incidents via text, email, or voice messages. Please sign up for this important service annually on the College's website at: http://www.ccsj.edu/alerts/index.html.</p> <p>In addition, you can check other media for important information, such as school closings:</p> <p>Internet: http://www.ccsj.edu Radio: WAKE – 1500 AM, WGN – 720 AM, WIJE – 105.5 FM, WLS – 890 AM, WZVN – 107.1 FM, WBBM NEWS RADIO 78 TV Channels: 2, 5, 7, 9, 32</p>
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Emergency Procedures

MEDICAL EMERGENCY

EMERGENCY ACTION

1. Call 911 and report incident.
2. Do not move the patient unless safety dictates.
3. Have someone direct emergency personnel to patient.
4. If trained: Use pressure to stop bleeding.
5. Provide basic life support as needed.

FIRE

EMERGENCY ACTION

1. Pull alarm (located by EXIT doors).
2. Leave the building.
3. Call 911 from a safe distance, and give the following information:
 - Location of the fire within the building.
 - A description of the fire and how it started (if known)

BUILDING EVACUATION

1. All building evacuations will occur when an alarm sounds and/or upon notification by security/safety personnel. **DO NOT ACTIVATE ALARM IN THE EVENT OF A BOMB THREAT.**
2. If necessary or if directed to do so by a designated emergency official, activate the building alarm.
3. When the building evacuation alarm is activated during an emergency, leave by the nearest marked exit and alert others to do the same.
4. Assist the disabled in exiting the building! Remember that the elevators are reserved for persons who are disabled. **DO NOT USE THE ELEVATORS IN CASE OF FIRE. DO NOT PANIC.**
5. Once outside, proceed to a clear area that is at least 500 feet away from the building. Keep streets, fire lanes, hydrant areas and walkways clear for emergency vehicles and personnel. The assembly point is the sidewalk in front of the college on New York Avenue.

6. **DO NOT RETURN** to the evacuated building unless told to do so by College official or emergency responders.

IF YOU HAVE A DISABILITY AND ARE UNABLE TO EVACUATE:

Stay calm, and take steps to protect yourself. If there is a working telephone, call 911 and tell the emergency dispatcher where you are **or** where you will be moving. If you must move,

1. Move to an exterior enclosed stairwell.
2. Request persons exiting by way of the stairway to notify the Fire Department of your location.
3. As soon as practical, move onto the stairway and await emergency personnel.
4. Prepare for emergencies by learning the locations of exit corridors and enclosed stairwells. Inform professors, and/or classmates of best methods of assistance during an emergency.

HAZARDOUS MATERIAL SPILL/RELEASE

EMERGENCY ACTION

1. Call 911 and report incident.
2. Secure the area.
3. Assist the injured.
4. Evacuate if necessary.

TORNADO

EMERGENCY ACTION

1. Avoid automobiles and open areas.
2. Move to a basement or corridor.
3. Stay away from windows.
4. Do not call 911 unless you require emergency assistance.

SHELTER IN PLACE

EMERGENCY ACTION

1. Stay inside a building.
2. Seek inside shelter if outside.
3. Seal off openings to your room if possible.
4. Remain in place until you are told that it is safe to leave.

BOMB THREATS

EMERGENCY ACTION

1. Call 911 and report incident.
2. If a suspicious object is observed (e.g. a bag or package left unattended):
 - Don't touch it!
 - Evacuate the area.

TERRORISM AND ACTIVE SHOOTER SITUATIONS

EMERGENCY ACTION

1. Call 911 and report intruder.

RUN, HIDE OR FIGHT TIPS:

- 1. Prepare** – frequent training drills to prepare the most effectively.
- 2. Run and take others with you** – learn to stay in groups if possible.
- 3. Leave the cellphone.**
- 4. Can't run? Hide** – lock the door and lock or block the door to prevent the shooter from coming inside the room.
- 5. Silence your cellphone** -- use landline phone line.
- 6. Why the landline?** It allows emergency responders to know your physical location.
- 7. Fight** – learn to “fight for your life” by utilizing everything you can use as a weapon.
- 8. Forget about getting shot – fight!** You want to buy time to distract the shooter to allow time for emergency responders to arrive.
- 9. Aim high** – attack the shooter in the upper half of the body: the face, hands, shoulder, neck.
- 10. Fight as a group** – the more people come together, the better the chance to take down the shooter.
- 11. Whatever you do, do something** – “react immediately” is the better option to reduce traumatic incidents.