LABORATORY POLICIES
BIO 142 – 14 Week Lab
Human Anatomy and Physiology II
4 Credits

INSTRUCTOR INFORMATION

Instructor:
Office Location:
Office Phone:
E-mail:
Office Hours:

Appointments can be made either during or outside of normal office hours by contacting your instructor directly.

ATTENDANCE

Regular attendance is expected. Students arriving more than **ten** minutes late will not be permitted in the laboratory. Please try to be on time. Attendance will be recorded each lab period. *Those students who consistently leave early may not be given credit for attending lab*. A student is responsible for knowing any material covered in the lab whether he/she was in attendance or not. ***Only one laboratory session may be missed without a grade penalty***. Any additional absences should be discussed with the instructor to determine acceptability. Additional unexcused absences will result in a **5% grade reduction** (per missed lab) on the corresponding lab exam.

MATERIALS

Required:
Anatomy and Physiology Lab Manual: Customized for AL Bio 141&142 by Marieb & Smith (ISBN-13-978-1-269-81699-1)
Use Table of Contents and label each exercise with its corresponding exercise number

Recommended:
Human Anatomy & Physiology by Marieb and Hoehn, Tenth Edition

The student will be required to furnish his/her self with all materials necessary for the completion of the course material. These items include but are not limited to the following: fetal pig for dissection, course textbook, lab manual**,** recommended material, *gloves (non-latex)**, *goggles**, pens, and writing utensils.

**These items are required when working with preserved specimens, during dissection exercises, and other labs noted on the schedule.*

Required material also includes printouts located on the Alexandria Biology Laboratories webpage:
http://blogs.nvcc.edu/albio/
It is recommended that you print these documents out at the beginning of the semester to prevent internet connectivity issues from interfering with your studies.

EVALUATION

The laboratory grade is ***30%*** of the course grade. Lab exams are used to evaluate your progress. ***A passing grade must be received in the laboratory in order to pass the course***. A word bank will not be provided on Lab Exams.

PRACTICALS (LAB EXAMS)

Four practical/written lab exams will be given throughout the semester and will total 200 points; A fetal pig dissection quiz worth 25pts; a term paper and presentation worth 50 points (Total 275 points).

No unexcused makeup exams will be offered. Documented emergencies and extenuating circumstances will be considered. If the instructor is informed of the absence prior to the scheduled exam, arrangements may be made to take the exam at an alternative time designated by the instructor. A request made in writing must be made and the instructor should be left with phone numbers (work and home) to make such arrangements. Permission to take the exam will only be granted for legitimate reasons**.** ***No Exceptions***.

If school is closed on the day a practical is scheduled, the evaluation will be given during the next lab session.

EXTRA CREDIT
Throughout the semester you may be assigned 0 to 30 points (maximum total) of extra credit to be applied to your laboratory grade. Assigned extra credit assignments may include but are not limited to pre- and post-lab quizzes, bonus exam questions, and topic review questions. Extra credit assignments will be assigned at the sole discretion of the instructor.

EQUIPMENT
All work surfaces must be kept clean and neat. Laboratory equipment and supplies must be properly used and maintained; a grade penalty may be imposed if not adhered to. ***This is especially important in the handling and maintaining of microscopes***. Protective gloves and goggles must be purchased for dissection activities.

LABORATORY CONDUCT
Food and beverages are not permitted in the laboratory. ***Please turn off your cell phones, pagers, alarm watches, etc. during the laboratory session***. A report of abusive behavior on the part of any student in working with the personnel in the Science Lab may result in the student receiving an ***"F"*** for the course.

Open toed shoes must not be worn in the laboratory. If the lab you are performing requires goggles, you must wear them. You will be dismissed from the laboratory for that day if you are not obeying the safety rules.

ACADEMIC HONESTY
Each student is expected to maintain the highest standards of honesty and integrity in academic matters. Cheating is a violation of professional ethics and college policy. Any student found cheating will result in an automatic failure of that assignment with possible expulsion from the course, after which NVCC reserves the right to take further disciplinary action. Cheating involves BOTH giving and receiving information that is to be carried out individually. Plagiarism is also considered cheating and includes (but is not limited to) coping your classmates' work or published works without providing proper citations.

SPECIAL NEEDS
If you have special needs, problems and/or require special accommodations, please address these with me at the beginning of the semester. Reasonable accommodations will be only made for students who have a verifiable need. If you are seeking accommodations based on a disability, you *must* provide a disability sheet, which can be obtained from the counselor for special needs.

SCHOOL CLOSING AND EMERGENCY AND EVACUATION PLAN
In the event of inclement weather, please check the NVCC homepage for school closing information. If the college is scheduled to re-open at a time when at least 45 minutes of class would remain, you will be required to attend class.

A framed emergency evacuation plan is located near the door in the classroom. This plan describes the evacuation procedures and route that must be followed in case of emergency. If an event occurs that requires evacuation, do not use the elevators, and once outside move at least 300 feet away from the building. Before leaving you should take all personal belongings, as time permits, because there is no assurance that you will be allowed to return.

Instructor reserves the right to alter this document at his discretion during the semester.

Group Term Paper Requirements

1. You will be combined into groups of 4 and assigned a topic (organ system) that will be the focus of your term paper and research article search. The topics for selection are as follows:

   a. *Nervous system*
   b. *Endocrine system*
   c. *Digestive system*
   d. *Urinary system*
   e. *Reproductive systems*
   f. *Lymphatic system*
   g. *Cardiovascular system*
   h. *Respiratory system*

2. Once a topic has been assigned, your group will be responsible for identifying **two disorders** associated with your assigned organ system.

3. The **criteria for the written portion** of your term paper are as follows:
   a. A title page listing your organ system, chosen diseases, and the names of everyone in your group.
   b. As a group you must submit a 2-4 page description of each disorder you decide to discuss. This description needs to include, but is not limited to, the following:
      - *short history of disease*
      - *most common symptoms*
      - *underlying physiological cause(s)**
      - *most common treatments*
      - *current clinical trials looking at both curative & palliative therapies*

      *Ex. **WRONG**: Overeating & consumption of mass quantities of fast food cause coronary artery disease.

      *Ex. **CORRECT**: Coronary artery disease results from the build up of atherosclerotic plaques in coronary arteries leading to reduced blood flow and inadequate supply of oxygen to the myocardium. Arteriosclerosis is defined as the thickening of arterial walls and is almost always associated with a loss of elasticity. Specifically, atherosclerosis results by the build up of plaques created by the deposition of low density lipoproteins in the…etc.

      If you don't understand what I am trying to illustrate here about physiological causes, come and speak with me directly.

   c. A works cited page must be included listing all of the sources used to prepare your term paper.
   d. ALL parts of your Term Paper are due the week of **11.01.16**.

4. The **criteria for the oral presentation** of your term paper are as follows:
   a. As a group, you will outline the diseases that you have chosen following the same guidelines as listed above for your term paper.
   b. During your talk, each member of the group must be involved equally in the presentation.
   c. The presentation is not to exceed 20 minutes (and should be no shorter than 16 minutes). This is a hard time line. You will be stopped if your presentation exceeds 20 minutes.
   d. Following the presentation, your group will field questions.
   e. Presentations will be given in lab the week of **11.01.16** or **11.08.16**. Equipment for PowerPoint presentations will be made available.

Scoring will be as follows:

Term paper:	25 points
Presentation:	25 points
Total:	50 points

This is a team building assignment that will require you to communicate with your team partners. Up front, you should exchange e-mail addresses and phone numbers and try and identify times when all of you can meet to discuss your work. In addition, this assignment also introduces you into database searching and will provide you with the ability to successfully research a medical topic you find important or are required to do so in the future.

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LABORATORY SCHEDULE

BIO 142 – 14 Week
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If weather conditions cause the cancellation of a lab that involves a quiz or practical, the evaluation will take place during the next lab period.

Lab	Date	Topic	Lab Exercises & Exams
1	Sept 6	Laboratory policies/Schedule/Safety Group term assignment – topic selection Library database search demonstration	Printouts from website
2	Sept 13	Functional Anatomy of the Endocrine Glands Blood	Ex. 25 Ex. 26
3	Sept 20	Anatomy of Blood Vessels Human Cardiovascular Physiology: Blood Pressure and Pulse Determinations	Ex. 29 and Printout Ex. 30
4	Sept 27	**Lab Exam 1 (50 pts) – Ex 25, 26, 29, 30 and Printout** Anatomy of the Heart ***GOGGLES*** Conduction System of the Heart & Electrocardiography Lymphatic System and Immune Response	Ex. 27 Ex. 28 Ex. 31
5	Oct 4	Anatomy of the Respiratory System Respiratory System Physiology ***GOGGLES***	Ex. 32 Ex. 33
	Oct 11	**NO LABS – NON INSTRUCTIONAL DAYS (10/10, 10/11)**	
6	Oct 18	**Lab Exam 2 (50 pts) – Ex 27, 28, 31, 32 and 33** Anatomy of the Digestive System Digestive System Process: Chemical & Physical ***GOGGLES***	Ex. 34 Ex. 35
7	Oct 25	Anatomy of the Urinary System Urinalysis ***GOGGLES***	Ex. 36 Ex. 37
8	Nov 1	Group term assignment due **(50 points)** (paper and oral presentation)	
9	Nov 8	Oral presentations continued	
10	Nov 15	**Lab Exam 3 (50 pts) – Ex 34-37** Anatomy of the Reproductive System Principles of Heredity (At Home Lab)	Ex. 38 Ex. 41
11	Nov 22	Physiology of Reproduction: Gametogenesis and the Female Cycles Survey of Embryonic Development	Ex. 39 Ex. 40
12	Nov 29	Fetal Pig Dissection ***GOGGLES*** **Fetal Pig Quiz (25 pts)**	Ex. 42-48
13	Dec 6	**Lab Exam 4 (50 pts) – Ex 38, 39, 40, 41**	

* Anatomy and Physiology Lab Manual: Customized for AL Bio 141&142 by Marieb & Smith.