

SUNY COLLEGE AT OLD WESTBURY

BIOLOGICAL SCIENCES PROGRAM

Instructor: Dr. Eric L. Schwartz Telephone Number - 628-5613 Office: NSB S- 218
Office Hours: T/TH 11:30AM – 1:00PM Noon – 1:00PM or by appt. E-Mail: schwartz@oldwestbury.edu
Course Info can be found at www.schwartzinfo.com
Class Meets Mon/Tues/Wed/Thurs from 9:00AM to 11:30AM in NSB – S-

BS – 2310, Human Anatomy & Physiology II

Lecture Component - 3 Credits

Summer 2018

Human Anatomy and Physiology I and II comprise a two-semester series of courses studying human anatomy and physiology. The concept of the relationships between Form and Function is stressed throughout the course and is used to explain concepts at the gross and microscopic levels. In addition, the study of homeostatic mechanisms is used to describe the control of the various systems, as well as the concept of the failure of homeostasis leading to disease states.

Human Anatomy and Physiology II consists of a lecture component, BS-2310 (3 credits) and a laboratory component, BS-2311 (1 credit). Human Anatomy and Physiology I also consists of a lecture component, BS-2300 (3 credits) and a laboratory component, BS-2301 (1 credit). Students registering for BS-2300 must also register for BS-2301 during the same semester. Students registering for BS-2310 must also register for BS-2311 during the same semester. BS-2300 and BS-2301 are prerequisites for BS-2310 and BS-2311.

Please note that these courses are required for entry into many programs in Physical Therapy, Nursing, Physician's Assistant, Dental Technician, and other Allied Health Professional Programs and as such they will be taught at a level commensurate with ensuring proficiency.

Required text: Anatomy & Physiology: The Unity of Form and Function by Saladin, Most Recent Edition.

Laboratory Manual for Human A&P: Fetal Pig Version w/PhILS 4.0 Access Card by Martin, most current edition.

The most cost effective method to get these materials is the package the Bookstore is stocking which has Saladin's 2-semester access of Connect including full E-Book packaged within the Martin Lab Manual with PhILS access. McGraw Hill Higher Education ISBN # 9781307166316.

There are required online PhILS assignments that you will need to complete for lab. In addition there are assignments and quizzes as part of the Lecture component so you will need the Phils access and the Connect access codes. There is a full E-Book version of the textbook included as part of the connect access. Once you have access to the Connect materials, at your own option you can purchase a full color printed loose leaf version of the text book and have it sent to you for a nominal fee.

It is expected that you will have familiarized yourself with the lecture or lab topics before each scheduled lecture or lab. There will be in-class quizzes in Lecture and in Lab so preparation is paramount to being successful in the course.

Remember. There will be no extra credit assignments that you can complete towards the end of the course to raise grades that are lower than you hoped for. It is highly recommended that you stay on track with the material and study regularly so that you can **earn** the grade that you want or need.

Grading: The average of three non-cumulative unit exams along with a cumulative final examination and quizzes and other assignments will determine the grade for the lecture component of the course.

Attendance: Regular attendance at the lectures is expected.

Make-up exams: Students are strongly encouraged not to miss any examinations. In the event that an emergency arises and a student must miss an exam he/she should speak with the professor ahead of time or as early as practicable. Make up exams may be offered at the discretion of the professor and will most likely be a different format exam covering the same material.

It is the student's responsibility to be aware of lecture and/or lab schedule changes, exam dates and any other announcements that may be made regarding the course.

Please be certain that all electronic devices are in silent mode and do not cause any distractions. Activities such as text messaging during class or any device related activities other than following online course materials is strictly prohibited. Students participating in such activities will be asked to leave the classroom to avoid any further distractions.

Use of electronic devices are also prohibited during all examinations and quizzes. Any student who is found to be violating this policy will receive a zero for that exam. Repeated violations may result in removal from the class.

BS-2310 Learning Objectives and Lecture Outline

A. Review of Homeostasis and Hormonal Actions

Upon successful completion of this unit students shall be able to demonstrate an understanding of the basic concept of homeostasis, negative and positive feedback mechanisms and how homeostatic mechanisms apply to normal body function and disease. In addition, the student will be able to demonstrate a basic understanding of how hormones function.

B. Endocrine System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Endocrine System as a whole as well as the various components of the Endocrine System. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

C. Digestive System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Digestive System as a whole as well as the various components of the Digestive System. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

D. Respiratory System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Respiratory System as a whole as well as the various components of the Respiratory System. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

E. Cardiovascular System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Cardiovascular System as a whole as well as the various components of the Cardiovascular System including the Blood, the Vessels and the Heart as well as the Immune System. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

F. Urinary System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Urinary System as a whole as well as the various components of the Urinary System. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

G. Reproductive System

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Anatomical Structure and Physiological Functions of the Male and Female Reproductive Systems as a whole as well as the various components of the Male and Female Reproductive Systems. In addition, the student will be able to apply this knowledge to normal body function and demonstrate an understanding of this system's interaction with other systems and of various diseases affecting and/or caused by problems in this system.

H. Inheritance and Development

Upon successful completion of this unit students shall be able to demonstrate an understanding of the Basic Concepts of Mendelian Genetics, including simple dominant and recessive inheritance, incomplete dominance, codominance and sex linked inheritance, as well as a basic understanding of the stages of human development. In addition, the student will be able to apply this knowledge in the understanding of various inherited and developmental conditions.

LECTURE OUTLINE

- A. Introduction**
 - 1. Review of Homeostasis and Various Feedback Mechanisms
 - 2. Overview of Mechanisms of Hormonal Action via the Endocrine System

- B. Endocrine System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Endocrine System

- C. Digestive System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Digestive System

- D. Respiratory System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Respiratory System

- E. Cardiovascular System and Immune System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Cardiovascular and Immune Systems

- F. Urinary System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Digestive System

- G. Reproductive System**
 - A. Anatomical Structure
 - B. Physiological Function
 - C. Diseases affecting and/or caused by the Male and Female Reproductive Systems

- H. Inheritance and Development**
 - A. Basic Mendelian Genetics
 - B. Inheritance beyond simple dominant vs. recessive.
 - C. Stages in Human Development

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POLICY ON ACADEMIC INTEGRITY

Administered by the Office of Academic Affairs

As is the policy of all SUNY institutions, students are expected to maintain the highest standards of honesty in their college work. Any act which attempts to misrepresent to an instructor or College official the academic work of the student or another student, or an act that is intended to alter any record of a student's academic performance by unauthorized means, constitutes academic dishonesty. Cheating, forgery and plagiarism are considered serious offenses and are subject to disciplinary action.

Cheating

Cheating is defined as giving or obtaining information by improper means in meeting any academic requirements. Examples of cheating, although not inclusive, include: unauthorized giving or receiving of information for an examination, paper, laboratory procedure, or computer assignment (file or printout); taking an examination for another student or allowing another student to take an examination for you; altering or attempting to alter a grade either on graded work or in an instructor's records or on any College form or record.

Forgery

Forgery is defined as the alteration of college forms, documents, records, or the signing of such forms or documents by someone other than the proper authority.

Plagiarism

Plagiarism is defined as the use of material from another author whether intentional or unintentional, without referencing or identifying the source of the material. If students have any questions as to what constitutes plagiarism, it is their responsibility to get clarification by consulting with the appropriate instructor.

ACCOMMODATIONS FOR STUDENTS WITH SPECIAL NEEDS:

If you have or suspect you may have a physical, psychological, medical or learning disability that may impact your course work, please contact Stacey DeFelice, Director, The Office of Services for Students with Disabilities (OSSD), NAB, 2065, Phone: 516-628-5666, Fax (516) 876-3005, TTD: (516) 876-3083. E-mail: defelices@oldwestbury.edu. The office will help you determine if you qualify for accommodations and assist you with the process of accessing them. All support services are free and all contacts with the OSSD are strictly confidential. SUNY/Old Westbury is committed to assuring that all students have equal access to all learning activities and to social activities on campus.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part of the document provides a detailed breakdown of the company's financial performance over the last quarter. It includes a comparison of actual results against budgeted figures and identifies areas where the company has exceeded expectations. The final part of the document outlines the company's strategic goals for the upcoming year and the steps that will be taken to achieve them.

The following table shows the company's revenue and expenses for the last quarter. The revenue was \$1,200,000, which is \$50,000 above the budgeted amount. Expenses were \$800,000, which is \$20,000 below the budgeted amount. This resulted in a net profit of \$400,000, which is \$30,000 above the budgeted amount. The company's operating margin was 33.3%, which is a significant improvement over the 30% target.

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