

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: ANATOMY & PHYSIOLOGY II

CODE NO.: BIO 117

SEMESTER: 2

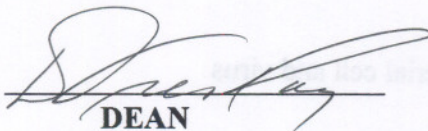
PROGRAM: MASSAGE THERAPY PROGRAM

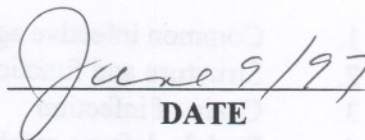
AUTHOR: RUTH WILSON

DATE: SEPT./96

PREVIOUS OUTLINE DATED: N/A

APPROVED:


DEAN

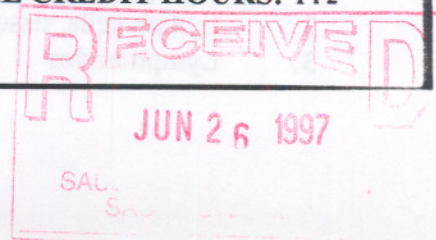

DATE

TOTAL CREDITS: 7

PREREQUISITE(S): BIO 107

LENGTH OF COURSE: 7 HR/WEEK

TOTAL CREDIT HOURS: 112



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I. COURSE DESCRIPTION: This course is a continuation of the study of the healthy human body. This course will study the structure and function of the respiratory, immune and lymphatic systems. A regional study of the upper limb, lower limb and back completes the course.

II. LEARNING OUTCOMES:

Upon successful completion of this course the student will be able to:

1. Explain basic concepts relevant to field of microbiology.
2. Describe the structure, function and location of the organs of the circulatory, lymphatic and immune systems.
3. Describe the regional anatomy of the upper limb and back.
4. Describe major changes occurring during the aging process in the structure and function of musculoskeletal, circulatory, lymphatic and immune systems.

III. TOPICS:

A. Basic Concepts of Microbiology:

1. Common infective agents
2. Structure and function of bacterial cell and virus
3. Chain of infection
4. Body's defense mechanism
5. Prevention of infection

B. Lymphatic System:

1. Lymphatic vessels
 - distribution and structure
 - lymph transport
2. Lymph cells, tissues and organs
3. Lymph nodes

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III TOPICS (Continued)

- location of superficial nodes (applied)
- structure and function
- 4. Other lymph organs
 - structure and function of spleen, thymus, tonsils

C. Immune System:

1. Non-Specific body defences
 - a) surface membrane barriers
 - b) non-specific cellular and chemical defences
 - phagocytosis
 - inflammatory process and repair
 - body's antimicrobial substances
 - fever
2. Specific body defences: immunity
 - a) antigens
 - b) cells of the immune system
 - c) humoral immune responses
 - definition
 - structure and function of components and cells
 - active and passive immunity
 - vaccination protocol in Canada
 - d) cell mediated immune response
 - definition
 - structure and function of components and cells
 - e) homeostatic imbalances
3. Developmental aspects of immunity

D. Respiratory System:

1. Functional anatomy
2. Mechanics of breathing
3. Gas exchanges in the body
4. Transport of respiratory gases by blood
5. Control of respiration
6. Developmental aspects

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E. Regional Anatomy of Upper Limb:

1. Review of bones
2. Review of joints
3. Detailed description of muscles
 - location
 - origin/insertion
 - action
 - innervation
4. Regional relationship of blood vessels, nerves, muscles
5. Lymphatic drainage
6. Palpable surface landmarks

F. Regional Anatomy of Lower Limb

G. Regional Anatomy of the Back

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Marieb, Elaine (1995). Human Anatomy & Physiology (3rd ed.). The Benjamin/Cummings Publishing Co. Inc.
2. Lumley, John (1996). Surface Anatomy. Churchill Livingstone.
3. Stone, R. And Stone J. (1990). Atlas of the Skeletal Muscles. WM. C. Brown Publishers. (ISBN-0-697-10618-7).
4. Snell, R.S. (1995). Clinical Anatomy for Medical Students (5th ed.). Little, Brown & Co. (ISBN-0-316-80435-6).
5. Skin Scrib Pen (Campus Shop)

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V. EVALUATION PROCESS/GRADING SYSTEM

A. Evaluation Methods

The evaluation methods will be determined and discussed with students the first two weeks of class.

B. Grading

1. The pass mark for the course is 60%. The letter grades for this course will be assigned in accordance with those established by Sault College.
2. Students who miss scheduled tests during the semester will not be allowed to write on another day.
3. If the instructor has been appropriately notified of your absence for the test, the test you missed will count for the same percentage as you receive on the final exam. If you have notified your instructor you will receive a grade of 0 for the missed test.
4. Each student must write the final exam, the lab test and do any required assignments.
5. All students must pass the practical lab test in order to receive a pass in this course.

C. Supplemental Exam

1. A supplemental examination which tests the entire semester's course material may be offered in this course at the discretion of the instructor.
2. A supplemental exam will only be offered to students who have failed the Biology course.

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VI. SPECIAL NOTES:

Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office.

The instructor reserves the right to modify the course as deemed necessary to meet the needs of students.

VII. PRIOR LEARNING ASSESSMENT

Students who wish to apply for advanced credit in the course should consult the instructor/Coordinator.