

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Structure and Function III

CODE NO. : BIO210 **SEMESTER:** 3

PROGRAM: Massage Therapy

AUTHOR: Lise St. Hilaire, Allan Kary

DATE: Sept/02 **PREVIOUS OUTLINE DATED:** N/A

APPROVED:

DEAN

DATE

TOTAL CREDITS: 3

PREREQUISITE(S): BIO120

HOURS/WEEK: 3

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For additional information, please contact the Dean
School of Health and Human Services
(705) 759-2554, Ext. 603/689

I. COURSE DESCRIPTION:

This course continues to explore the structure and function of the healthy human body. The regulation and integration of the body is examined in depth through the study of the nervous and endocrine systems. Students are expected to apply knowledge from the previous structure and function courses as well as the Anatomy III course.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Describe the structure and function of the nervous system.

Potential Elements of the Performance:

- a) Describe the cells of the nervous system and the structure of nerves and their coverings.
 - b) Describe the electrical events of neurons.
 - c) Describe the structure, function and events of the synapse and neuronal pools.
 - d) Describe the types and functions of neurotransmitters and their receptors.
 - e) Classify sensory receptors in the skin.
 - f) Describe motor endings and reflex activity.
 - g) Describe the organs, receptors and processes involved with the special senses.
 - h) Describe the processes involved with sensory and motor integration.
 - i) Describe the processes involved with higher mental functions.
 - j) Describe nerve endings and their functions.
 - k) Describe sclerotomes, myotomes and dermatomes.
 - l) Explain anatomy and physiology of pain.
2. Describe the structure, function and location of the organs of the endocrine system, the functions of the hormones and the mechanisms and control of hormone action and release.

Potential Elements of the Performance:

- a) Identify the glands of the endocrine system, their location and the functions of each.
- b) Describe general characteristics of hormones.
- c) Describe the pituitary hormones, their function and mechanisms that regulate their release.
- d) Describe the function of the thyroid hormones and mechanisms of their release.
- e) identify the glands of the endocrine system, their location, functions and hormonal products secreted by each.
- f) Explain the functional organization of the adrenal glands.
- g) Summarize the function of the mineralocorticoids and glucocorticoids.
- h) Explain the role of adrenaline and noradrenaline as neurotransmitters and hormones.
- i) Describe the roles of insulin and glucagon in glucose metabolism.

III. TOPICS:

1. Nervous System
2. Endocrine System

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Marieb, Elaine. (2001). Human Anatomy and Physiology (5th ed.). Benjamin Cummings.

Stedman's Concise Medical Dictionary for the Health Professions (4th ed.). Lippincott, Williams & Wilkins.

V. EVALUATION PROCESS/GRADING SYSTEM:**Evaluation Methods:**

The evaluation methods and procedures for missed exams will be discussed and a written copy will be given to students during the first two weeks of class.

Supplemental Exam:

One opportunity for a supplemental exam will be offered to students who meet the following criteria:

- a) have a grade of 50 – 59% in the course
- b) have attended at least 80% of the scheduled class time

The final grade for the semester will be based solely on the supplemental exam. The grade achieved will not be higher than a "C".

The following semester grades will be assigned to students in post-secondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
F (Fail)	59% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	

X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

VI. SPECIAL NOTES:

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.