

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Anatomy and Physiology IV

CODE NO. : BIO217

SEMESTER: 4

PROGRAM: Massage Therapy

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DATE: Jan/02

PREVIOUS OUTLINE DATED: Jan/01

APPROVED:

DEAN

DATE

TOTAL CREDITS: 7

PREREQUISITE(S): BIO207

HOURS/WEEK: 7

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I. COURSE DESCRIPTION:

This course continues to explore the structure and function of the healthy human body. Regional anatomy of the head, neck, thorax, abdomen and pelvis are studied in depth as well as the special senses, the digestive system, the endocrine system, the reproductive system and human development and maturation. Students are expected to apply knowledge from previous biology courses.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Describe the regional anatomy of the head, neck, thorax, abdomen and pelvis.

Potential Elements of the Performance:

- a) Review the bones, ligaments and muscles found in these regions.
 - b) Describe the locations of all the nerves in these areas in relation to other anatomical structures.
 - c) Describe the innervation patterns of all the nerves in these regions.
 - d) Describe the locations of all the blood vessels in these areas in relation to other anatomical structures.
 - e) Describe the areas that each blood vessel supplies.
2. Describe the structure of the organs and the innervation involved in the special senses.
 3. Demonstrate, through palpation and explanation, the locations of palpable bony landmarks, ligaments, muscles, nerves, blood vessels and other structures in the head, neck, thorax, abdomen and pelvis.
 4. Describe the structure, function and location of the organs of the digestive system.

Potential Elements of Performance:

- a) label and describe the function of the parts of the digestive system.
- b) Describe the digestive processes and enzyme reactions occurring in each of the parts of the digestive system.
- c) Describe the physiology of chemical digestion and absorption.

4. Describe the metabolic processes occurring in the body.

Potential Elements of performance:

- a) List, give examples and describe the uses of each type of nutrient.
- b) Define the various metabolic processes that occur in the body.
- c) Describe the metabolism of each type of nutrient in the body.
- d) Describe the processes involved in maintaining energy balance in the body.
- e) Describe the processes involved in the regulation of body temperature.

5. 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.
6. Describe the structure, function and location of the organs of the reproductive system.

Potential Elements of the Performance:

- a) Label and describe the function of the macroscopic and microscopic parts of the male reproductive system.
 - b) Describe the hormonal regulation of the male reproductive system.
 - c) Label and describe the function of the macroscopic and the microscopic parts of the female reproductive system.
 - d) Describe the ovarian and the uterine cycles and the hormonal regulation of each.
 - e) Describe the process of meiosis and oogenesis.
7. Describe the stages of human development and maturation.

Potential Elements of the Performance:

- a) Describe the events of fertilization, preembryonic development, embryonic development, fetal development and adjustments of the infant to extrauterine life.
- b) Describe the effects of pregnancy on the mother.
- c) Describe the stages of parturition.
- d) Describe the process of lactation.
- e) Describe the changes occurring during puberty and menopause.

III. TOPICS:

1. Regional Anatomy of the Head, Neck, Thorax, Abdomen, and Pelvis
2. Digestive System
3. Metabolism
4. Endocrine System
5. Reproductive system
6. Development and Maturation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

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

Moore, Kieth. (1999). Clinical Oriented Anatomy (4th ed.). Lippincott.

Biel, Andrew. (1997). Trail Guide to the Body. Andrew Biel.

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

1. 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.
2. Students must obtain a minimum grade of 60% in both the practical lab section and the written/theoretical section of this course independently of each other in order to be successful in this course.

Supplemental Exam:

One opportunity for a supplemental exam in each section of this course will be offered to students who meet the following criteria:

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

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 postsecondary 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
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies & Procedures Manual – Deferred Grades and Make-up</i>).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

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 instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 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 postsecondary 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.