# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY SAULT STE. MARIE, ONTARIO



# **COURSE OUTLINE**

COURSE TITLE: Applied Human Movement

CODE NO.: OPA107 SEMESTER: 2

**PROGRAM:** Occupational Therapist Assistant/Physiotherapist

Assistant

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DATE: Jan/13 PREVIOUS OUTLINE DATED: Jan/12

APPROVED: "Marilyn King" Jan/13

CHAIR OF HEALTH PROGRAMS DATE

TOTAL CREDITS: 3

PREREQUISITE(S): OPA 101, OPA 103, OPA 104

**HOURS/WEEK:** 3hrs/wk

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For additional information, please contact the Chair, Health Programs

School of Health, Wellness and Continuing Education

(705) 759-2554, Ext. 2689

#### I. COURSE DESCRIPTION:

This course will consolidate the student's knowledge base of anatomy and movement acquired in Semester One (OPA 103 and OPA 104). Students learn to apply knowledge related to muscle, joint structure and function, and biomechanics of human movement, as it applies to normal and abnormal human movement throughout the lifespan. The student will develop knowledge and skills related to abnormal movement patterns and posture. The application of motor learning and practice considerations as it applies to rehabilitation are explored.

# II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

In general, this course addresses Vocational Learning Outcomes (cross-referenced with the MTCU Program Standards) in: communication skills (1, 2, 8P, 8O, 9P, 9O, 10P, 10O), safety (1, 2, 4, 8P, 8O, 9P, 9O, 10P, 10O), professional competence (1, 2, 4, 5, 7, 8P, 8O, 9P, 9O, 10P, 10O), documentation skills (1, 4, 5) and application skills (1, 2, 4, 8P, 8O, 9P, 9O, 10P, 10O). It addresses all of the Generic Skills Learning Outcomes.

Upon successful completion of this course, the student will:

1. Demonstrate and apply knowledge of motor learning and practice conditions.

# Potential Elements of Performance:

- Identify and describe the stages of motor learning, and characteristics of the learner in each stage of learning
- Identify and describe appropriate instructional strategies for effective exercise and task-specific instruction
- Identify and describe different types of feedback and its role in motor learning
- Identify and describe different practice conditions (part practice, whole practice, blocked vs. random practice)
- 2. Demonstrate and apply knowledge of anatomy as it relates to functional movement.

#### Potential Elements of the Performance:

- Integrate knowledge of anatomy with the analysis of various normal functional movements
- 3. Demonstrate and apply knowledge related to muscle and soft tissue mobility.

#### Potential Elements of the Performance:

- Integrate knowledge of anatomy with the principles of soft tissue stretching
- Explain key concepts of soft tissue stretching
- Explain the implications of age as it relates to soft tissue stretching

- 4. Demonstrate knowledge of normal versus abnormal postures and the effect of these on movement related to body alignment and positioning Potential Elements of the Performance:
  - Describe and demonstrate the ability to assist and educate others regarding normal body alignment and positioning
  - Identify common abnormal postures and age related postures, and the consequence of these in terms of tightness, weakness and elongation of soft tissues
- 5. Demonstrate knowledge of normal and abnormal gait patterns with and without of assistive devices.

#### Potential Elements of the Performance:

- Identify and describe normal and abnormal gait patterns
- Review parameters of gait (step length, stride length, width of base of support)
- Describe normal age-related changes of gait
- Identify gait patterns of common disabling conditions (CVA, Parkinson's, antalgic gait of the lower extremity)
- Identify factors affecting gait (abnormal tone, cognition, sensory and perceptual deficits)
- Describe and demonstrate basic gait patterns using assistive devices

#### III. TOPICS:

- 1. Applied Kinesiology
- 2. Motor Learning and Principles of Practice
- 3. Muscle and Soft Tissue Mobility
- 4. Normal and Abnormal Posture and Body Alignment and Positions
- 5. Normal, Abnormal and Assistive Gait Patterns

# IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Johansson, C. and Chinworth, S. (2012). <u>Mobility in Context. Principles of Patient Care Skills.</u> F.A. Davis Company.

Kisner and Colby. (2007) <u>Therapeutic Exercise</u>. Foundations and Techniques (5th edition). F.A. Davis Company.

Lippert, Lynn. (2011). <u>Clinical Kinesiology for Physical Therapist Assistants.</u> (5<sup>th</sup>. ed.) F.A. Davis Company. (from 1<sup>st</sup> semester)

Lippert, Lynn. (2011). <u>Laboratory Manual for Clinical Kinesiology and Anatomy.</u> (3<sup>rd</sup> . ed.) F.A. Davis Company. (from 1<sup>st</sup> semester)

Marieb, Elaine. (2012). <u>Essentials of Human Anatomy and Physiology</u>. (10<sup>th</sup> ed.) Benjamin Cummings/Addison Wesley Longman, Inc.

# V. EVALUATION PROCESS/GRADING SYSTEM:

Students in the OTA/PTA program must successfully complete this course with a minimum C grade (60%) as partial fulfillment of the OTA/PTA diploma.

1. Course Evaluation:

Tests (4 x 15% each)	60%
Final Exam	40%
Total	100%

- 2. All tests/exams are the property of Sault College.
- 3. Students missing any of the tests or exams (written or practical), must notify the professor <u>BEFORE</u> the test or exam. The professor reserves the right to request documents to support the student's request and to determine whether the student is eligible to write the test or exam at another time. <u>Those STUDENTS WHO DO NOT NOTIFY</u> the professor of their absence prior to the test or exam will receive a zero for that test or exam.
- 4. For assignments to be handed in, the policies of the program will be followed. For assignments not handed in by the due date, the mark received will be zero. Extensions will be granted if requested in writing at least 24 hours before the due date. There will be a deduction of one percent per day for every school day late with the permission of an extension. For example if a written extension was requested, and an extension for 5 school days (1 week) was granted, 5 percentage points will be deducted from the final grade.
- 5. Supplemental Exams/Assignments are generally not provided in the OTA/PTA program. In the event of a failing grade in the course, however, there may be exceptional circumstances where a supplemental exam/assignment may be considered. In all circumstances, this decision remains at the discretion of the professor and/or coordinator.

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	Grade Point <u>Equivalent</u>
A+ A	90 – 100% 80 – 89%	4.00
В	70 - 79%	3.00
С	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% 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 W	Grade not reported to Registrar's office. Student has withdrawn from the course without academic penalty.

**Note:** For such reasons as program certification or program articulation, certain courses require minimums of greater than 50% and/or have mandatory components to achieve a passing grade.

It is also important to note, that the minimum overall GPA required in order to graduate from a Sault College program remains 2.0.

Mid Term grades are provided in theory classes and clinical/field placement experiences. Students are notified that the midterm grade is an interim grade and is subject to change.

# VI. SPECIAL NOTES:

#### Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivals will not be guaranteed admission to the room.

<u>Substitute course</u>: information is available in the Registrar's office.

### VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.