

I. COURSE DESCRIPTION:

This course will expand the student's knowledge base acquired in the course HUMAN MOVEMENT (OPA 104) and HUMAN ANATOMY (OPA 103). Students begin to apply of knowledge related to muscle, joint structure and function, and biomechanics of human movement, as it applies throughout the lifespan. The student will be introduced to basic clinical competencies and will have the opportunity to apply the principles of normal functional movement as it relates to human movement including ADL, exercise, posture, transfers and gait. The student will develop knowledge and skills related to abnormal movement development/patterns, proper handling techniques and the application of assistive ambulation devices.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

In general, this course addresses Vocational Learning Outcomes (cross-referenced with the 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 and skills related to motor development.
Potential Elements of the Performance:
 - Explain and demonstrate the normal stages of motor development and identify the implications of failure to achieve these
 - Describe key milestones used to assess motor development
2. Demonstrate and apply knowledge related to concepts and components of movement.
Potential Elements of the Performance:
 - Describe the clinical implications of the essential components of movement (motor, sensory, cognitive, perceptual, psychosocial, environmental) and their inter-relationship
 - Integrate knowledge of concepts of movement and joint movement through the analysis of functional movements (ie. ADL, walking, lifting, stairs, sports, occupational performance)
3. Demonstrate and apply knowledge and skills related to muscle and exercise physiology.
Potential Elements of the Performance:
 - Integrate knowledge of muscle through the analysis of various normal functional movements
 - Explain key concepts of soft tissue stretching and the application in clinical context
 - Identify and define tone and recognize the clinical implications of abnormal muscle tone.

4. Demonstrate and apply knowledge of normal versus abnormal postures and movement related to body alignment and positioning, transfers and lifts.

Potential Elements of the Performance:

- Describe and demonstrate normal body alignment and positioning
- Demonstrate the ability to assist and educate others regarding normal body alignment and positioning
- Identify and define impairments (such as restricted ROM, tone, balance, and cognitive status) and explain how they may affect body alignment, positioning, transfers and ambulation (with and without assistive devices)
- Identify how abnormal postures, movement and impairments may present risk factors and contraindications to the use of lifts, transfers and assistive devices for mobility

5. Demonstrate safe and purposeful handling for normal limbs.

Potential Elements of the Performance:

- Demonstrate and explain the need for safe handling of limbs
- Explain the effect of different impairments (abnormal tone, cognition, sensory and perceptual deficits) on ROM

6. Demonstrate an understanding of the implications of age-related changes on normal functional movement.

Potential Elements of the Performance:

- Describe the implications of normal age related changes on:
 - a) bones
 - b) joints
 - c) muscles
 - d) posture
 - e) movement – specific joints, spine, chest wall
 - f) cardio-respiratory systems

7. Demonstrate and apply knowledge and skills related to the application of assistive devices for ambulation.

Potential Elements of the Performance:

- Identify and describe normal and abnormal gait patterns
- Assess parameters of gait (step length, stride length, width of base of support)
- Demonstrate an understanding of basic gait patterns using assistive devices
- Identify changes in factors affecting gait (vertical and horizontal displacement, width of base of support, lateral pelvic tilt, step length, stride length)
- Describe normal age-related changes of gait
- Explain the effect of different impairments (abnormal tone, cognition, sensory and perceptual deficits) on gait
- Identify gait patterns of common disabling conditions (CVA, Parkinson's, antalgic gait of the lower extremity)

III. TOPICS:

1. Motor Development
2. Age Related Changes
3. Application of Concepts/Components of Movement
4. Applied Kinesiology
- 5.. Muscle and Exercise Physiology
6. Posture and Movement
7. Impairments and Mobility
8. Safe and Purposeful Handling of Limbs`
9. Gait Patterns

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Lippert, Lynn. (2006). Clinical Kinesiology for Physical Therapist Assistants. (4th. ed.) F.A. Davis Company. (from 1st semester)

Lippert, Lynn. (2007). Laboratory Manual for Clinical Kinesiology and Anatomy. (2nd. ed.) F.A. Davis Company. (from 1st semester)

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.	
Quizzes (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 because of illness or other serious reason must notify the professor **BEFORE** the test or exam. The professor reserves the right to request documents to support the student's request.

4. Those students who have notified the professor of their absence that day and who have medical documentation to support their absence, will be eligible to arrange an opportunity as soon as possible to write the test or exam at another time. Those students who **DO NOT NOTIFY** the professor will receive a zero for that test or exam. Re-writes for absence other than medical, remain the discretion of the professor.
5. 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. This means that if you requested an extension for 5 school days (1 week), 5 percentage points will be deducted from the final grade.

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%	
B	70 - 79%	3.00
C	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	Grade not reported to Registrar's office.	
W	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 arrivers will not be guaranteed admission to the room.*

Substitute course 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.