



## I. COURSE DESCRIPTION:

The purpose of this course is to provide the student with basic skills performed by an OTA. The emphasis will be on the management of neurological conditions, particularly the use of Occupational Therapy interventions and assistive devices used to maximize independent function. Lab sessions will familiarize students with an array of potential Occupational Therapy equipment, and the correct use, application, safe fabrication, and maintenance of Occupational Therapy treatment tools and assistive devices. The student will gain the necessary skills to assist in the construction of assistive devices as directed by the Occupational Therapist.

## II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

In general, this course addresses Learning Outcomes of the Program Standards in: communication skills (1,2,8O – 12O), interpersonal skills (1,2,7,9O –12O), safety (1,2,4,8O – 12O), professional competence (1,2,4,5,6,8O -12O), documentation skills (1,4,5) and application skills (1,2,4,8O – 12O). It addresses all of the Generic Skills Learning Outcomes.

Upon successful completion of this course, the student will:

1. Demonstrate an understanding of the clinical presentation of common neurological conditions managed in an Occupational Therapy setting.  
Potential Elements of the Performance:
  - Define **Traumatic Brain Injury** (TBI) and discuss types of injury, stages of recovery and explain signs and symptoms
  - Define **Cerebral Vascular Accident** (CVA) and discuss potential risk factors, causes, and related deficits
  - Define the classification and stages of recovery, as well as medical and surgical issues related to **Spinal Cord Injury**
  - Define the following Developmental Disorders and discuss causes and deficits of each disorder:
    - Cerebral Palsy**
    - Spina Bifida**
    - Mental Retardation/Down's Syndrome**
    - Autism**
  - Define the following Degenerative Diseases of the Central Nervous System and explain signs and symptoms of each disease:
    - Multiple Sclerosis**
    - Parkinson's Disease**
    - Amyotrophic Lateral Sclerosis (ALS)**
    - Alzheimer's Disease**

2. Demonstrate an understanding of the role of the OT and the OTA in the Occupational Therapy management of common neurological conditions.  
Potential Elements of the Performance:  
For the conditions listed above:
  - Discuss the role of education-related to condition, safety in the home
  - Discuss assessments related to the following conditions (cognitive, physical, perceptual, ADL, IADL)
  - Demonstrate the ability to select and adapt treatment strategies and the ability to safely implement treatment
  - Discuss and demonstrate the ability to perform ADL training
  - Become familiar with commonly used adaptive equipment and assistive devices
  
3. Demonstrate an understanding of normal and abnormal postures and movement, and the assessment and treatment in an Occupational Therapy setting.  
Potential Elements of the Performance:
  - Review normal posture, postural reflexes and tone
  - Discuss terms related to abnormal tone-flaccid, spastic, ataxic
  - Discuss terms related to abnormal posture/positioning-decorticate posture, flexion contractures, decerebrate postures, extension contractures
  - Discuss the assessment of movement and tone-review ROM, grading of muscle strength, co-ordination of movement
  - Describe and demonstrate the ability to perform treatments for abnormal tone, movement and posture
  - Review Neuro-Developmental Treatment approach
  
4. Demonstrate skill in the education and instruction of ADL/IADLs in clients with neurological conditions.  
Potential Elements of the Performance:
  - Review definition of ADL and IADL
  - Discuss various assessments of ADL and IADL
  - Discuss and demonstrate ADL and IADL training strategies
  - Review principles and methods of being an effective teacher
  - Review teaching/learning methods
  
5. Demonstrate knowledge and skill in the selection and implementation of therapeutic activities for individual clients and groups of clients with neurological conditions under the supervision of an Occupational Therapist, with respect to:
  - a) cognitive abilities and limitations
  - b) perceptual abilities and initiations
  - c) physical abilities and limitations

Potential Elements of the Performance:

- Review issues related to individual vs. group treatment
- Review various assessments related to cognitive, perceptual and physical skills
- Discuss remedial vs. compensatory training for cognitive limitations
- Demonstrate the use of therapeutic exercises and functional training for various cognitive, perceptual and physical limitations
- Practice in the selection, adaptation and safe implementation of treatment for various conditions

6. Demonstrate an understanding of the application of a range of assistive devices, the safe use of, and maintenance of assistive devices used to maximize function in Occupational Therapy with clients with neurological conditions, with respect to:
- a) cognitive/perceptual abilities and limitations
  - b) physical abilities and limitations

Potential Elements of the Performance:

- Discuss the use of compensatory aids for individuals with cognitive and perceptual limitations
- Demonstrate the use of assistive devices and adaptive equipment for physical limitation

7. Demonstrate skill in the construction of an assistive devices used to maximize function in clients with neurological conditions.

Potential Elements of the Performance:

- Invent and present to the class an effective assistive device for a specific condition

8. Demonstrate knowledge of wheelchair components, maintenance, and potential safety concerns for clients with neurological conditions using wheelchairs.

Potential Elements of the Performance:

- Discuss features in manual and power wheelchairs
- Demonstrate the ability to safely educate a patient about wheelchair safety-use of breaks, footrest, armrest, positioning, maneuvering
- Discuss wheelchair considerations for individuals with specific cognitive, perceptual and physical limitations
- Research wheelchair information by consulting with local vendor/supplier
- Spend a day in a wheelchair in order to gain further insight into the barriers and challenges faced by wheelchair users

10. Demonstrate an understanding and application of basic energy conservation principles to ADL and IADL in clients with specific neurological conditions.

Potential Elements of the Performance:

- Define energy conservation and pacing
- Discuss the role of education regarding energy conservation and pacing for patients with CVA and TBI in order to optimize their functioning in everyday activities

11. Demonstrate safe and appropriate handling skills in specific neurological conditions.

Potential Elements of the Performance:

- Describe and practice handling and positioning techniques
- Describe and practice various safe transfer techniques and levels of assistance (i.e. pivot transfer, sliding board transfer, 2 person assist)
- Discuss special precautions during transfers
- Discuss the importance of proper body mechanics during transfers

**III. TOPICS:**

1. Clinical presentation of common neurological conditions-TBI, CVA, Spinal Cord Injury, CP, Spina Bifida, Mental Retardation, Autism, MS, Parkinson's, Alzheimer's, ALS
2. Role of the OT and OTA in assessment and treatment of the above neurological conditions
3. The ADL and IALD assessment
4. Assistive devices and adaptive equipment including wheelchairs
5. Handling skills-transfers and positioning
6. Energy conservation and pacing

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Early, M.B. (1998). Physical Dysfunction Practice Skills for the Occupational Therapy Assistant. St. Louis, MO: Mosby

Hirama, H. (1986). Occupational Therapy Assistant: A Primer. Baltimore, MD: CHES Publications, Inc.

Pierson, F. (2002). Principles and Techniques of Patient Care. (3<sup>rd</sup>. ed.) W.B. Saunders.

Hansen, R, and Atchison, B. (1999). Conditions in OT Effects on Occupational Performance. (1999).Williams & Wilkins.

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

1. A combination of tests and assignments will be used to evaluate student achievement of the course objectives. A description of the evaluation methods follows and will be discussed by the teacher within the first two weeks of class.
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 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.
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.
6. A supplemental exam may be written by students who meet the following criteria. The student must achieve at least a grade of 45% in the course. The student must have attended at least 80% of the classes. The supplemental exam will then cover the entire course and will be worth 100% of the student's final mark.

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%	
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.

## 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 E1101 or call Extension 703 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.