



COURSE OUTLINE: OPA109 - PHYSICAL AGENTS

Prepared: Joanna MacDougall

Approved: Bob Chapman, Chair, Health

Course Code: Title	OPA109: PHYSICAL AGENTS
Program Number: Name	3022: OCCUP/PHYSIO/ASSIST
Department:	OTA/PTA ASSISTANT
Semesters/Terms:	19W
Course Description:	The purpose of this course is to provide the student with the opportunity to develop the ability required to safely and effectively apply therapeutic modalities used in physiotherapy and occupational therapy. The student will be expected to demonstrate competence in the areas of safety, patient and equipment set up and implementation of specific therapeutic modalities, as well as effective instruction, cuing and providing feedback of the client. The student will also be expected to demonstrate knowledge and accuracy regarding surface anatomy as it relates to the application of therapeutic modalities. The student will demonstrate the ability to perform aspects of documentation of the application of therapeutic modalities within the scope of the OTA and/or PTA.
Total Credits:	3
Hours/Week:	3
Total Hours:	45
Prerequisites:	OPA101, OPA103, OPA104, OPA116, OPA117, OPA118
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	OPA203
Vocational Learning Outcomes (VLO's) addressed in this course: Please refer to program web page for a complete listing of program outcomes where applicable.	3022 - OCCUP/PHYSIO/ASSIST VLO 1 Communicate appropriately and effectively, through verbal, nonverbal, written and electronic means, with clients, their families, and significant others, occupational therapists, physiotherapists, other health care providers, and others within the role of the therapist assistant. VLO 2 Participate in the effective functioning of interprofessional health care teams within the role of the therapist assistant. VLO 3 Establish, develop, maintain, and bring closure to client-centred, therapeutic relationships within the role of the therapist assistant. VLO 4 Ensure personal safety and contribute to the safety of others within the role of the therapist assistant. VLO 5 Practice competently in a legal, ethical, and professional manner within the role of the therapist assistant. VLO 6 Document and complete client records in a thorough, objective, accurate, and nonjudgmental manner within the role of the therapist assistant. VLO 7 Develop and implement strategies to maintain, improve, and promote professional competence within the role of the therapist assistant. VLO 8 Perform effectively within the roles and responsibilities of the therapist assistant through the application of relevant knowledge of health sciences, psychosociological



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	sciences, and health conditions.												
	VLO 9 Perform functions common to both physiotherapy and occupational therapy practices that contribute to the development, implementation and modification of intervention/treatment plans, under the supervision of and in collaboration with the occupational therapist and/or physiotherapist. VLO 11 Enable the client's optimal physical function by contributing to the development, implementation, and modification of intervention/treatment plans, under the supervision of and in collaboration with the physiotherapist.												
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 10 Manage the use of time and other resources to complete projects. EES 11 Take responsibility for ones own actions, decisions, and consequences.												
Course Evaluation:	Passing Grade: 60%, C												
Other Course Evaluation & Assessment Requirements:	As partial fulfillment of the OTA & PTA diploma, Performance Based Evaluations require a minimum of 60% in each category of performance.												
Books and Required Resources:	Reading materials provided by the professor. by Textbooks from Semester 1 will be used.												
Course Outcomes and Learning Objectives:	Upon successful completion of this course, the CICE student, with the assistance of a Learning Specialist will acquire varying levels of skill development relevant to the following learning outcomes: <table border="1"> <thead> <tr> <th>Course Outcome 1</th><th>Learning Objectives for Course Outcome 1</th></tr> </thead> <tbody> <tr> <td>1. Demonstrate an understanding and application of cellular biology.</td><td> 1.1 Identify basic cell structure and function including membrane transport mechanisms, electrical properties and cellular metabolism. 1.2 Identify the four categories of body tissues. 1.3 Identify the events of cellular injury and adaptations. 1.4 Identify the common causes of inflammation and factors which influence recovery (physical and psychological). 1.5 List and describe the three phases of healing: inflammatory phase, proliferation phase, maturation phase. </td></tr> <tr> <th>Course Outcome 2</th><th>Learning Objectives for Course Outcome 2</th></tr> <tr> <td>2. Demonstrate an understanding of mechanisms and theories of pain.</td><td> 2.1 Recognize common attributes of acute and chronic pain. 2.2 Recognize the gate control theory of pain versus opiate mediated control of pain. </td></tr> <tr> <th>Course Outcome 3</th><th>Learning Objectives for Course Outcome 3</th></tr> <tr> <td>3. Demonstrate effective, professional patient preparation for the application of physical</td><td> 3.1 Identify with accuracy relevant bony and soft tissue landmarks on self and on another person. 3.2 Demonstrate appropriate positioning and draping skills while identifying surface anatomy and applying therapeutic </td></tr> </tbody> </table>	Course Outcome 1	Learning Objectives for Course Outcome 1	1. Demonstrate an understanding and application of cellular biology.	1.1 Identify basic cell structure and function including membrane transport mechanisms, electrical properties and cellular metabolism. 1.2 Identify the four categories of body tissues. 1.3 Identify the events of cellular injury and adaptations. 1.4 Identify the common causes of inflammation and factors which influence recovery (physical and psychological). 1.5 List and describe the three phases of healing: inflammatory phase, proliferation phase, maturation phase.	Course Outcome 2	Learning Objectives for Course Outcome 2	2. Demonstrate an understanding of mechanisms and theories of pain.	2.1 Recognize common attributes of acute and chronic pain. 2.2 Recognize the gate control theory of pain versus opiate mediated control of pain.	Course Outcome 3	Learning Objectives for Course Outcome 3	3. Demonstrate effective, professional patient preparation for the application of physical	3.1 Identify with accuracy relevant bony and soft tissue landmarks on self and on another person. 3.2 Demonstrate appropriate positioning and draping skills while identifying surface anatomy and applying therapeutic
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3. Demonstrate effective, professional patient preparation for the application of physical	3.1 Identify with accuracy relevant bony and soft tissue landmarks on self and on another person. 3.2 Demonstrate appropriate positioning and draping skills while identifying surface anatomy and applying therapeutic												



agents.	agents required to apply therapeutic agents. 3.3 Demonstrate the ability to verbally prepare a patient for a planned intervention that involves physical agents by explaining the purpose of the physical agent and gaining verbal consent.
Course Outcome 4	Learning Objectives for Course Outcome 4
4. Demonstrate an understanding of the roles/responsibilities of the OTA/PTA in the application of physical agents.	4.1 Demonstrate professional behaviour expected of an OTA/PTA while carrying out components of a treatment plan that includes the delivery of physical agents. 4.2 Perform the roles/responsibilities of the OTA/PTA in the application of physical agents. 4.3 Observe and recognize significant departures from the expected patterns of patient response to the physical agents and report immediately to the Registered Physiotherapist.
Course Outcome 5	Learning Objectives for Course Outcome 5
5. Demonstrate knowledge and skills related to body mechanics.	5.1 Perform proper body mechanics during the set up and application of physical agents.
Course Outcome 6	Learning Objectives for Course Outcome 6
6. Demonstrate an understanding of the effects, benefits and indications for a variety of physical agents.	6.1 Identify the role of physical agents in the physiotherapy management of motion restrictions and muscle tone. 6.2 Identify the effects, benefits and indications for a variety of physical agents, including but not limited to: Thermal Agents: Ice Packs, Ice Massage, Hot Packs, Paraffin, Whirlpool, Contrast Baths, Ultrasound, Electrical Current: TENS, NMES, Interferential, Traction and Compression Bandaging.
Course Outcome 7	Learning Objectives for Course Outcome 7
7. Demonstrate knowledge of and describe the contraindications and precautions of various physical agents.	7.1 Identify the contraindications and precautions of a variety of physical agents, including but not limited to those listed above. 7.2 Identify and implement common precautions (positioning, interfaces, monitoring during procedures, aseptic procedures). 7.3 Recognize an adverse reaction and react appropriately.
Course Outcome 8	Learning Objectives for Course Outcome 8
8. Demonstrate the skills required to competently apply various physical agents, as required by a supervising Physiotherapist or Occupational Therapist.	8.1 Safely and accurately carry out tasks related to the application of specific physical agents under the supervision of a Registered Physiotherapist or Occupational Therapist. 8.2 Recognize liability issues and reimbursement issues that may arise with the application of these modalities.
Course Outcome 9	Learning Objectives for Course Outcome 9
9. Demonstrate competence in the setup, care and maintenance of equipment.	9.1 Correctly assemble/set up, prepare equipment, put away and clean for of each physical agent. 9.2 Explain and demonstrate an understanding of the care and maintenance of equipment, including physical agents (also include preventative maintenance plan and follow-up).
Course Outcome 10	Learning Objectives for Course Outcome 10
10. Demonstrate documentation skills required of the OTA/PTA	10.1 Accurately document the application of all physical agents, making note of any significant departures from the expected patterns of patient response, and any actions taken, and report



	related to the application of therapeutic modalities.	immediately to the Registered Physiotherapist/Occupational Therapist.
	Course Outcome 11	Learning Objectives for Course Outcome 11
	11. Demonstrate the ability to communicate to and reassure patients/clients the effects, benefits and indications/contraindications for various physical agents.	11.1 Describe in lay terms the effects and benefits of the physical agents listed above. 11.2 List and describe in lay terms the indications of the physical agents listed above. 11.3 Appropriately inquire (in lay terms) regarding contraindications of the physical agents listed above. 11.4 Reassure patients regarding any feelings of anxiety regarding the receipt of the physical agents listed above.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight	Course Outcome Assessed
1. Lab Demonstrations Surface Anatomy	15%	3
2. Quizzes	10%	All
3. Term Project(s)	10%	All
4. Written Tests	35%	All
5. Performance Based Evaluations Physical Agents	30%	2-11

CICE Modifications:

Preparation and Participation

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

B. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

C. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:



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1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

D. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

E. Evaluation:

Is reflective of modified learning outcomes.

NOTE: Due to the possibility of documented medical issues, CICE students may require alternate methods of evaluation to be able to acquire and demonstrate the modified learning outcomes

Date:

October 23, 2018

Please refer to the course outline addendum on the Learning Management System for further information.

