EIM Certification in Geriatrics - 16 credits

EBP 6100 - Evidence-based Practice I (15 hours/1 credit) – ONLINE SELF-PACED, SELF-STUDY

This course is designed to improve the participant's understanding and use of evidence-based practice (EBP). The course will discuss the evolution of EBP and its impact in the physical rehabilitation practice. Using case scenarios, guided tutorials and journal references, participants will learn how to ask clinically relevant questions, search available literature, appraise selected studies, synthesize and interpret the evidence, and apply this evidence to clinical practice. The goal of this course is to develop clinicians who are informed consumers and users of clinical research literature that will improve the quality and impact of the participant’s clinical practice on the patients they serve.

Course Objectives:
At the end of the course the student will be able to
1. Define EBP and discuss its philosophy and fundamental principles.
2. Construct a well-built clinical question.
3. Search the literature using available search portals, engines and databases effectively and efficiently.
4. Critically appraise diagnostic, prognostic or intervention studies involving the geriatric population.
5. Understand basic statistical concepts that convey clinically important change.
6. Discuss the application of current best evidence into geriatric clinical practice,
7. Effective communicate evidence-based clinical decisions to stakeholders (patients/families, other medical professionals, third party payors and policymakers)

Introduction to Geriatric Rehabilitation – (15 hours/1 credit) - ONLINE SELF-PACED, SELF-STUDY

This course introduces the participants to the fundamentals of geriatric rehabilitation practice. Students will acquire in depth knowledge of the aging process and compare and contrast normal and pathologic aging. Case studies will be presented that illustrate the complexities and interactions of the aging process on diagnosis, impact on interventions,
and expected progression based on function. Students will be provided with an introduction to evidence-based examination and intervention of older adults. A multi-disciplinary perspective will be presented, and students will develop skills to communicate and educate other healthcare providers (Physical Therapy, Occupational Therapy, Pharmacy, Social Work, Medicine) in order to provide the best care for older adults.

Course Objectives:
Upon completion of this course participants will be able to:
1. Compare and contrast normal and pathological aging of various body systems
2. Discuss the role of the geriatric rehabilitation team
3. Discuss special considerations when providing evidence-based management to the older adult
4. Select evidence-based examination procedures to assess movement and function of the older adult
5. Select evidence-based intervention strategies to optimize well-being and function of the older adult.

Management of Neurologic Problems, Balance and Falls in the Older Adult – (8 weeks online with 2 day onsite lab/5 credits) – BLENDED

This course will provide the rehabilitation clinician with knowledge and skills in managing older adults with a variety of neuromuscular conditions that implicate on their movement and function. This course will have two distinct sections. The two-day onsite session is designed to integrate both sections through specific discussion and laboratory sessions to allow the participants the clinical reasoning process to competently manage neurological disorders and falls in the geriatric population.

Course Objectives:
Upon completion of this course participants will be able to:
1. Analyze the impact of the pathological process on common central nervous system disorders in terms of function.
2. Describe neurological red flags that would require medical consultation or emergency attention
3. Select and perform tests and measures to identify a person's fall risk.
4. Identify and perform evidenced-based interventions to decrease a person's fall risk
5. Perform a systematic examination of patients with selected neuromuscular disorders in order to direct further evaluation, intervention, or referral.
6. Evaluate functional and dysfunctional movement patterns in terms of joint motion, muscle activity, motor control, and sequencing of components of normal and abnormal motor behavior.
7. Appropriately select, justify and perform specific tests and measures in individuals with common neurological dysfunctions.
Management of Musculoskeletal Problems in the Older Adult – (8 weeks online with 2 day onsite lab/5 credits) – BLENDED

This course will provide the rehabilitation clinician with knowledge and skills in managing older adults with a variety of musculoskeletal conditions that implicate on their movement and function. Musculoskeletal pain and dysfunction is a leading cause of disability in older adults. Lower extremity arthritic conditions and aging spine problems such as lumbar spinal stenosis frequently result in decreased fitness levels and increased fall risk. This course will focus on evidence-based programs to address these problems and hands-on manual therapy management strategies that are adapted for the older adult.

Course Objectives:
At the end of this course, the student will be able to
1. Analyze the different elements of patient/client management for the older adult with selected musculoskeletal disorders
2. Select and apply tests and measures used in the examination of the person with disorders of the musculoskeletal system.
3. Demonstrate appropriate manual and manipulative therapy and therapeutic exercise for older adults with selected musculoskeletal disorders
4. Discuss appropriate exercise dosing and progression for older adults
5. Appraise the role of the rehabilitation clinician in prevention of disorders of the musculoskeletal system.
6. Discuss and analyze evidence for the management of persons with musculoskeletal disorders.

Management of Cardiopulmonary Problems in the Older Adult – (15 hours 1 credit) – ONLINE SELF-PACED, SELF-STUDY

This course will provide the clinician with knowledge and skills in the rehabilitation management of cardiopulmonary disorders. Emphasis will be placed on selected cardiopulmonary conditions such as heart attacks, COPD and emphysema.

Course Objectives:
At the end of the course, participants will:
1. Discuss the principles of cardiopulmonary assessment in the older adult
2. Describe evidence-based approaches in the rehabilitation management of an older adult with cardiopulmonary conditions
Special Topics in Geriatric Rehabilitation – (4 week/1 credit each) – ONLINE SELF-PACED, SELF-STUDY – choose TWO Special Topics from the course offerings.

**Special Topic A: Management of Integumentary Problems in the Older Adult – (15 hours 1 credit) – ONLINE SELF-PACED, SELF-STUDY**

This course will provide the clinician with knowledge and skills in the rehabilitation management of integumentary problems. The course will cover risks for skin breakdown, prevention of integumentary problems in the geriatric population, and wound care management.

Course Objectives:
At the end of this course, the student will be able to:
1. Describe risk assessment tools to determine skin integrity
2. Describe the elements of a comprehensive wound evaluation
3. Describe evidence-based approaches to manage wounds
4. Describe pressure ulcer prevention interventions in various postures.
5. Describe signs of abuse/neglect as they relate to wounds

**Special Topic B: Wellness and Health Promotion in the Geriatric Population**

This course covers evidence-based approaches to optimize health and wellness in the older adults. It will discuss issues regarding readiness of an individual to change behaviors related to health promotion, and interventions to optimize adherence to exercise or other health behaviors to support health aging.

Course Objectives
At the end of this course, the student will be able to:
1. Discuss evidence-based theories of behavior change in older adults
2. Develop program and approaches that optimize adherence to exercise and/or healthy behaviors
3. Discuss specific barriers and facilitators to health promotion and illness prevention in older adults
4. Discuss environmental modifications to allow the older adult to live as independently as possible
5. Discuss implementation of wellness and health promotion initiatives

**Special Topic C: Complementary Therapies in Rehabilitation**

This course will provide the clinical with theoretical foundations and practical applications of selected complementary therapies that may be applied in geriatric rehabilitation practice.
Course Objectives
At the end of the course, students will be able to:

1. Discuss the theories behind selected complimentary therapies
2. Identify indications and contraindications of the selected complimentary therapies
3. Select and implement complimentary therapies that improve health outcomes of the older adult
4. Assess outcomes following implementation of selected complementary therapies (myofascial release, acupressure, etc.)

**Special Topic D: Regulatory, Legal and Issues in Geriatric Rehabilitation**
This course covers special health policy issues that affect the geriatric population.

Course Objectives:
At the end of this course, the student will be able to:
   1. Recognize selected health policy issues affecting geriatric rehabilitation practice.
   2. Identify and discuss selected legal and ethical issues in geriatric rehabilitation practice
   3. Discuss approaches to manage ethical issues in the older adults

**Geriatric Certification Virtual Rounds and Case Presentations – (4 weeks, 1 credit) ONLINE WITH LIVE WEBINAR**

This capstone course for the Geriatric Certificate Program introduces the student to the Virtual Rounds environment. Students present patient cases and provide/seek feedback to/from peers and EIM Faculty. The course focuses on advanced clinical decision-making regarding clinical care in a collaborative virtual environment. Live virtual case tutorial sessions are typically conducted in the evenings.

Course Objectives:
At the end of the course the student will be able to or will have completed.
   1. Clearly and concisely provide feedback on patient cases that includes key elements of the patient interview and examination to include valid and reliable age-related tests and measures, generation of a diagnosis, prognosis and plan of care.
   2. Independently present patient cases as evidence of application of EBP across a broad spectrum of patients.
   3. Participate in peer-assessment and provide feedback to colleagues that encourage the application of current best evidence into practice.
   4. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.
   5. Demonstrate mastery of clinical decision-making in geriatric rehabilitation, with appropriate incorporation of interventions, throughout the entire course of care
6. Understand and apply the disablement, patient/client management, and ICF models in physical rehabilitation practice.
7. Synthesize data from the examination and analyze data to make clinical judgments regarding patient/client management.
8. Select patient/client variables that allow research evidence to be collected and applied.
9. Incorporate evidence/consensus-based practice in the management of patients/clients.

Geriatric Certification Program Capstone Examinations – (Capstone credit) – ONLINE

This capstone course consists of the final examination process for Geriatric Certificate Program students. Geriatric certificate students will complete a final comprehensive written examination that focuses on medical screening, clinical reasoning, decision-making, and the application of evidence-based approaches in the rehabilitation management involving older adults.
Optional EIM Postprofessional DPT with Geriatric Certification—additional 15 credits

APPT 6110 - Essentials of Pharmacology & Clinical Lab Tests – (1 credit) – ONLINE SELF-PACED, SELF-STUDY

This course complements entry-level education on pharmacology and clinical lab testing. Course material focuses on the clinical application of key pharmacology principles in an outpatient musculoskeletal physical therapy setting. Basic concepts of pharmacokinetics and pharmacotherapeutics are covered, followed by a specific focus on medications commonly prescribed for cardiovascular disorders, diabetes, pain control, and pulmonary disorders. Discussion of these broad categories of drugs will cover clinical application, intended therapeutic effects, and potential adverse effects. This course also provides an overview of a core set of clinical lab tests that physical and occupational therapists should understand and should be confident suggesting to medical providers or ordering themselves (based on the physical therapist's practice act or credentials). The clinical lab tests discussed include basic biochemistry, immunology, hematology, & microbiology tests.

Course Objectives:
At the end of the course the student will be able to or will have completed.
   1. Understand the basics of pharmacokinetic and pharmacotherapeutic principles and how they impact our patients.
   2. Identify indications for common classes of drugs, as well as their intended therapeutic actions, potential side effects, and potential implications for physical and occupational therapy practice.
   3. Use information on therapeutic actions, potential side effects, and implications for PT & OT practice in planning and modifying patient plans of care.
   4. Use selected web-based resources on pharmacology
   5. Understand key indications for requesting selected clinical lab tests, as well as the ranges for normal test results.
   6. Understand potential reasons for abnormal clinical lab tests, and identify a plan of action once an abnormal clinical lab test is identified.

APPT 6210 Essentials of Musculoskeletal Imaging – (6 weeks/2 credits) – ONLINE, FACULTY-DIRECTED

This course encompasses the essentials of musculoskeletal radiology and other common imaging modalities such as MRI, CT, musculoskeletal ultrasound, Bone Scans, and DEXA Scans. This course helps participants' confidence grow in the areas of common radiographic views, radiographic presentation of common musculoskeletal conditions, and communicating with patients how their diagnostic imaging results relate to their current problem. Learning activities present a regional approach to the use and role of diagnostic imaging in physical therapy clinical practice.
Course Objectives:
At the end of the course the student will be able to or will have completed.
1. Engage in the diagnostic process using musculoskeletal imaging procedures when appropriate to establish differential diagnoses across systems and across the lifespan.
2. Determine the most appropriate musculoskeletal imaging procedure according to the patient/client presentation and the current best evidence for diagnosis.
3. Determine the most appropriate radiographic views according to patient/client presentation, current best evidence for diagnosis, and current best evidence for reducing ionizing radiation exposure.
4. Describe a systematic approach to the analysis of plain film radiography, magnetic resonance imaging, bone scans, and computed tomography and determine the relevance of visualized pathology to clinical decision-making.
5. Use evidence-based diagnostic imaging procedures as appropriate to help determine the patient/client who would benefit from physical therapy interventions and the patient/client who requires referral for medical services.
6. Review diagnostic test studies on musculoskeletal imaging according to evidence-based criteria for validity, including an explanation of radiographic clinical decision rules for orthopedic pathology related to the spine and extremities.
7. Understand basic concepts of musculoskeletal image acquisition and interpretation.
8. Recognize the appearance of normal anatomy and common pathology on musculoskeletal images to facilitate diagnostic accuracy and appropriate intervention strategies and forces.
9. Effectively educate patients and clients regarding their diagnostic imaging results. Formulate an enhanced working vocabulary of diagnostic and musculoskeletal imaging terminology and appropriately communicate with other medical professionals using the language of diagnostic imaging.

APPT 6220 Essentials of Medical Screening – (6 weeks/2 credits) – ONLINE, FACULTY-DIRECTED

APTA Vision 2020 envisions physical therapists as autonomous providers of musculoskeletal care. Screening for conditions not amenable to treatment by a physical therapist or that requires consultation/referral to other providers is a key skill. This course complements entry-level education on medical screening by presenting a pragmatic approach to a review of symptoms and incorporating the latest evidence on yellow and red flags. Current evidence is presented where available. In addition to red flags, participants will learn how to use evidence-based questionnaires to aid screening for depression and fear-avoidance behaviors, and they will work on creating or updating a general health screening form for use in their own clinical environments.

Course Objectives: At the end of the course the student will be able to or will have completed.
1. Utilize a medical screening form to guide a review of systems across the life span.
2. Recognize red flags for potentially serious conditions not amenable to treatment by a physical therapist or that require referral to other providers.
3. Recognize potentially serious conditions that can mimic musculoskeletal conditions.
4. Recognize yellow flags: such as depression or fear avoidance and incorporate these findings into clinical decision-making.
5. Communicate effectively with referring providers regarding signs/symptoms suggestive of non-musculoskeletal disorders or conditions potentially needing referral or consultation with medical providers.
6. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.

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**Medical Screening for the Neurologic Physical Therapist – (6 weeks/ 2 credits) -ONLINE, FACULTY-DIRECTED**

Course Description: Though neurologic physical therapists most often examine and treat patients with a primary neurologic diagnosis, often these patients have co-morbidities and/or risk factors that require additional screening skills. The primary goal of this course is to prepare you to recognize client problems that are beyond the expertise of a physical therapist, and to then make the appropriate decision regarding the next step – from a referral back to the physician to calling 911. This level of differential diagnosis requires you to effectively compare and contrast neuromuscular signs and symptoms with those of possible systemic origin. We will review the clinical manifestations of the more common systemic disorders and discuss how they might mimic dysfunction of the neuromuscular system. We will also highlight emergency situations that require immediate medical intervention. You will develop proficiency in: systems screening, differential interviewing strategies, risk factors and red flag recognition. Pattern recognition and algorithmic approaches to clinical problem solving will be presented and practiced using case presentations.

**ORPT 6510 Management of Lumbopelvic Disorders – (8 weeks online with 2 day onsite lab, 5 credits) – BLENDED**

Patients with low back and pelvic/hip pain make up nearly 50% of all patients receiving outpatient physical therapy. This course is designed to enhance the student's knowledge and skill level in the evidence-based management of individuals with lumbopelvic spine and hip disorders and dysfunction. Classification systems, diagnosis, and outcomes assessment tools are discussed as components of the diagnostic process within the framework of evidence-based practice. The use of diagnostic imaging and medical screening for red flags is discussed to effectively screen for systemic and vascular disorders. Evidence-based treatment approaches, with special emphasis on manual therapy (mobilization/manipulation) and exercise, are reviewed to improve the student's management of individuals with lumbopelvic musculoskeletal disorders. An intensive laboratory weekend is included to provide hands-on demonstration and practice of examination skills and selected manual therapy and exercise interventions for the lumbopelvic spine and hip regions.
Course Objectives:
At the end of the course the student will be able to or will have completed.
1. Use knowledge in the foundational and clinical sciences related to structure, movement dysfunction, response to injury and disease and promotion of health and wellness to enhance physical therapy outcomes for patients with lower extremity disorders.
2. Participate in peer-assessment activities.
3. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.
4. Understand and apply the disablement and patient/client management models in physical therapist practice.
5. Examine patients/clients by obtaining a history, by performing systems reviews, and by selecting and administering valid and reliable age-related tests and measures.
6. Synthesize data from the examination and analyze data to make clinical judgments regarding patient/client management.
7. Determine a diagnosis that guides patient/client management.
8. Develop a diagnosis based on the disablement model.
11. Establish and manage a plan of care.
12. Provide physical therapy interventions to achieve patient/client goals and outcomes.
13. Select patient/client variables that allow research evidence to be collected and applied.

ORPT 6530 Management of Cervical and Thoracic Disorders – (8 weeks online with 2 day onsite lab, 5 credits) – BLENDED

This course is designed to enhance the student's knowledge and skill level in the evidence-based management of individuals with cervical-thoracic spine and ribcage disorders and dysfunction. Classification systems, diagnosis, and outcomes assessment tools are discussed as components of the diagnostic process within the framework of evidence-based practice. The use of diagnostic imaging and medical screening for red flags is discussed to effectively screen for systemic and vascular disorders. Evidence-based treatment approaches, with special emphasis on manual therapy (mobilization/manipulation) and exercise, are reviewed to improve the student's management of individuals with cervical and thoracic spine musculoskeletal disorders. An intensive laboratory weekend is included to provide hands-on demonstration and practice of examination skills and selected manual therapy and exercise interventions for the cervical and thoracic spine regions.

1. Use knowledge in the foundational and clinical sciences related to structure, movement dysfunction, response to injury and disease and promotion of health and
wellness to enhance physical therapy outcomes for patients with lower extremity disorders

2. Participate in peer-assessment activities.
3. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.
4. Understand and apply the disablement and patient/client management models in physical therapist practice.
5. Examine patients/clients by obtaining a history, by performing systems reviews, and by selecting and administering valid and reliable age-related tests and measures.
6. Synthesize data from the examination and analyze data to make clinical judgments regarding patient/client management.
7. Determine a diagnosis that guides patient/client management.
8. Develop a diagnosis based on the disablement model.
11. Establish and manage a plan of care.
12. Provide physical therapy interventions to achieve patient/client goals and outcomes.
13. Select patient/client variables that allow research evidence to be collected and applied.

Optional EIM Postprofessional OTD with Geriatric Certification—additional 8 credits

**APPT 6110 - Essentials of Pharmacology & Clinical Lab Tests** – (1 credit) – ONLINE SELF-PACED, SELF-STUDY

This course complements entry-level education on pharmacology and clinical lab testing. Course material focuses on the clinical application of key pharmacology principles in an outpatient musculoskeletal physical therapy setting. Basic concepts of pharmacokinetics and pharmacotherapeutics are covered, followed by a specific focus on medications commonly prescribed for cardiovascular disorders, diabetes, pain control, and pulmonary disorders. Discussion of these broad categories of drugs will cover clinical application, intended therapeutic effects, and potential adverse effects. This course also provides an overview of a core set of clinical lab tests that physical and occupational therapists should understand and should be confident suggesting to medical providers or ordering themselves (based on the physical therapist's practice act or credentials). The clinical lab tests discussed include basic biochemistry, immunology, hematology, & microbiology tests.

Course Objectives:
At the end of the course the student will be able to or will have completed.
7. Understand the basics of pharmacokinetic and pharmacotherapeutic principles and how they impact our patients.
8. Identify indications for common classes of drugs, as well as their intended therapeutic actions, potential side effects, and potential implications for physical and occupational therapy practice.
9. Use information on therapeutic actions, potential side effects, and implications for PT & OT practice in planning and modifying patient plans of care.
10. Use selected web-based resources on pharmacology
11. Understand key indications for requesting selected clinical lab tests, as well as the ranges for normal test results.
12. Understand potential reasons for abnormal clinical lab tests, and identify a plan of action once an abnormal clinical lab test is identified.

**APPT 6220 Essentials of Medical Screening – (6 weeks/2 credits) – ONLINE, FACULTY-DIRECTED**

Screening for conditions not amenable to treatment by a physical or occupational therapist or that requires consultation/referral to other providers is a key skill. This course complements entry-level education on medical screening by presenting a pragmatic approach to a review of symptoms and incorporating the latest evidence on yellow and red flags. Current evidence is presented where available. In addition to red flags, participants will learn how to use evidence-based questionnaires to aid screening for depression and fear-avoidance behaviors, and they will work on creating or updating a general health screening form for use in their own clinical environments.

Course Objectives:
At the end of the course the student will be able to or will have completed.
1. Utilize a medical screening form to guide a review of systems across the life span.
2. Recognize red flags for potentially serious conditions not amenable to treatment by a physical or occupational therapist or that require referral to other providers.
3. Recognize potentially serious conditions that can mimic musculoskeletal conditions.
4. Recognize yellow flags: such as depression or fear avoidance and incorporate these findings into clinical decision-making.
5. Communicate effectively with referring providers regarding signs/symptoms suggestive of non-musculoskeletal disorders or conditions potentially needing referral or consultation with medical providers.
6. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.

**ORPT 6540 Management of Upper Extremity Disorders-(8 weeks with 2 day onsite/5 credits)-BLENDED**

This course is designed to enhance the student's knowledge and skill level in the evidence-based management of individuals with upper extremity disorders and dysfunction.
Classification systems, diagnostic clusters, and outcomes assessment tools are discussed as components of the diagnostic process within the framework of evidence-based practice. Diagnostic information for the medical screening of systemic and vascular disorders is also discussed. Evidence-based treatment approaches, with special emphasis on manual therapy and exercise, are reviewed to improve the student's management of individuals with upper extremity musculoskeletal disorders. An intensive laboratory weekend is included to provide hands-on demonstration and practice of examination skills and selected manual therapy and exercise interventions for the shoulder, elbow, wrist and hand regions.

Course Objectives:
At the end of the course the student will be able to or will have completed.
1. Use knowledge in the foundational and clinical sciences related to structure, movement dysfunction, response to injury and disease and promotion of health and wellness to enhance physical therapy outcomes for patients with lower extremity disorders
2. Participate in peer-assessment activities.
3. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.
4. Understand and apply the disablement and patient/client management models in physical therapist practice.
5. Examine patients/clients by obtaining a history, by performing systems reviews, and by selecting and administering valid and reliable age-related tests and measures.
6. Synthesize data from the examination and analyze data to make clinical judgments regarding patient/client management.
7. Determine a diagnosis that guides patient/client management.
8. Develop a diagnosis based on the disablement model
11. Establish and manage a plan of care.
12. Provide physical therapy interventions to achieve patient/client goals and outcomes.
13. Select patient/client variables that allow research evidence to be collected and applied.

*Occupational Therapists pursuing their OTD will complete all four Special Topics in Geriatric Rehabilitation Courses – see above.*