Manual Physical Therapy Certificate Pre-Fellowship Program

Curriculum
Effective: July 2015
MANUAL PHYSICAL THERAPY CERTIFICATE PROGRAM

Program Director: Dr. Bill Garcia and Dr. Julie Whitman

The EIM Manual Therapy Certificate Program Pre-Fellowship is committed to developing evidence-based physical therapist practitioners and clinician scientists. We seek to produce highly skilled autonomous practitioners who are critical thinkers, reflective, empathetic, and lifelong learners. Manual Therapy Certificate Pre-Fellowship graduates will be primed to move into Fellowship as practitioners grounded in the principles of an evidence-based medicine and who are skilled in rapidly integrating that knowledge into their clinical practice.

Manual Physical Therapy Pre-Fellowship Certificate Program Objectives:

1. Provide an innovative and cutting edge educational environment consistently across all clinical settings and for all participants through integration of state of the art learning tools with advanced professional clinical practice.
2. Develop physical therapists that value the principles of evidence-based practice and behave accordingly in their daily practice.
3. Develop practitioners skilled in the integration of eclectic orthopaedic manual physical therapy techniques and evidence-based practice principles into a clinical decision-making framework for the management of patients with musculoskeletal conditions.
4. Develop practitioners who confidently and professionally interact with physical therapy colleagues and other healthcare providers (general physicians, surgeons, nurse practitioners, physician assistants, etc).
5. Develop interest in and promote life-long learning by PTs leading to Fellowship training and advanced sub-specialty certifications.
6. Provide an efficient route for new graduates to become an ABPTS certified specialist in Orthopaedics and prepare for Fellowship training.

Admission Requirements

1. All applicants must possess a current and valid license to practice physical therapy in one of the 50 United States, the District of Columbia, Puerto Rico, or US Virgin Islands. This license must not be under suspension, revocation, probationary status, or subject to disciplinary proceedings or inquiry.
2. All applicants must have completed either a Bachelor’s or Master’s Degree level CAPTE accredited professional physical therapy curriculum, or have had a state physical therapy board approve the applicant’s first professional physical therapy program as “equivalent” to a US CAPTE accredited professional physical therapy program. Applicants who have graduated from a university outside of the US must provide a copy of their physical therapy degree equivalency evaluation for admission.

Curriculum

The EIM Manual Physical Therapy Pre-Fellowship Certificate Program consists of 28 credit hours of blended online and onsite learning. The student has 2 years (24 months) of active enrollment to complete the program in order to apply credits to the Fellowship program. The curriculum consists of the following outlined academic courses:

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28 credits
EVIDENCE BASED PRACTICE (EBP)

EBP 6100  Evidence-based Practice I  1 credit
This course is designed to improve the participant's understanding and use of evidence-based practice; it's history and impact on physical therapy practice. Using case scenarios, guided tutorials, and journal references, participants will learn how to ask clinically relevant questions, find and interpret the evidence, and apply this evidence to clinical practice. The goal of this course is to develop consumers and users of clinical research 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 or will have completed.
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 articles dealing with Intervention or Therapy for validity.
5. Discuss the application of current best evidence into clinical practice.
6. Discuss evaluation of your performance.
7. Identify key EBP resources and aides.

EBP 6110  Evidence-based Practice II  1 credit
Prerequisite(s): EBP 6100 Evidence-based Practice I
This course builds on the foundational content of EBP I and covers key principles related to Diagnosis/Differential diagnosis, Prognosis and Harm along with their respective critical appraisal criteria and important selected additional detail associated with these topics. In addition, selected key concepts related to research design and statistics are presented along with patient oriented statistical indices from the realm of epidemiology that are inherent to EBP (e.g. NNT, OR, RR etc.). Emphasis is on practical interpretation, understanding, and application when encountering these content areas in the literature and integrating them in the clinical reasoning process.

Course Objectives: At the end of the course the student will be able to or will have completed.
1. Identify fundamental elements of research design and statistics.
2. Identify and list common research designs used in clinical research.
3. Discuss, compare and contrast relevant considerations among various research designs
4. Identify commonly used statistical tests and indices.
5. Discuss key aspects of “traditional” clinical research and design and statistics, in particular as they relate to conducting and interpreting the results of clinical studies
6. Identify patient oriented statistical indices from the realm of epidemiology that are inherent to EBP
7. Discuss important elements of critical appraisal related to the practice domains of Diagnosis, Prognosis and Harm
8. Critically appraise articles dealing with Diagnosis, Prognosis and Harm for validity
9. Describe and discuss the integration of course concepts into clinical practice.

ORTHOPAEDIC PHYSICAL THERAPY (ORPT)

ORPT 6510  Management of Lumbopelvic Disorders  5 credits
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 6520 Management of Lower Extremity Disorders 5 credits
This course is designed to enhance the student's knowledge and skill level in the evidence-based management of individuals with lower extremity disorders and dysfunction. Classification systems, outcomes assessment tools, and the application of diagnostic imaging rules for acute lower extremity injuries 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 lower 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 hip, knee and ankle 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  5 credits

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.

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 6540  Management of Upper Extremity Disorders  5 credits

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.
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13. Select patient/client variables that allow research evidence to be collected and applied.

**RESEARCH (RES)**

**RES 6110  Writing Case Reports & Case Series**  1 credit

This course is designed to improve knowledge regarding the importance of case reports/series in the medical literature and provides the foundation of the skill-set needs as Fellows-in-Training (FiT) work towards completing their own original case report or case series. This course reviews the steps involved in completing a case report suitable for publication. This involves examining foundational material and critiquing the initial submission of a published case report. Learning the process of producing a meaningful case report along with the ability to critically appraise other published reports will improve the student’s foundational knowledge as an evidence-based clinician.

**ORTHOPAEDIC MANUAL PHYSICAL THERAPY (OMPT)**

**OMPT 6110  Introduction to OMPT and Professional Socialization**  1 credit

This course provides an introduction into what it means to be a manual physical therapy fellow and discusses a variety of professional topics such as: the history of manual therapy, what is the AAOMPT, what is a fellow, the language of manual therapy, the APTA and the AAOMPT’s stance on professional responsibility and the performance of manipulation, “why the DPT”, Vision 2020, and other thought provoking topics. It is useful to know our manual therapy roots, to understand the growth and evolution of our “family tree” and to be aware of the issues related to our profession that may enhance or inhibit our professional ecosystem.

**OMPT 6130  Mechanisms of Manual Physical Therapy**  1 credit

Recent clinical research strongly suggests that manual therapy is an effective therapy for certain patients with musculoskeletal pain. Despite this realization, we still know very little about the mechanisms of its effectiveness. This course will provide an update on the biomechanical and neurophysiologic mechanisms of manual therapy. Special attention will be directed towards recent research investigating manual therapy’s effect on pain. Recently proposed models for explaining how manual therapy works will be emphasized in this class. Fellows-in-Training will also interact with leading researchers in this field during one or more live webinar sessions.
Course Objectives: At the end of the course the student will be able to or will have completed.
1. Describe different definitions and types of manual therapy with the goal of finding a common “language” for this course.
2. Compare and contrast mechanistic models of manual therapy that have been reported in the peer-review literature.
3. Discuss how mechanistic models reported in the peer-review differ from how manual therapy theory is typically taught and included in physical therapy clinical practice.
4. Identify common mechanistic pathways in peer-review models of manual therapy.
5. Research individual manual therapy mechanism pathways and assess the evidence to support their importance as an “active agent” in the effectiveness of manual therapy.
6. Discuss recent research findings on pain inhibition properties of spinal manipulation and neural mobilization.
7. Consider clinical implications for knowledge of manual therapy mechanisms.
8. Explain to a patient how manual therapy works using current scientific evidence as a basis for that explanation.
9. Identify future research priorities in investigating how manual therapy work...
6. Understand and apply the disablement, patient/client management, and ICF models in physical therapist 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.