Certification in Pediatric Practice

Curriculum
Revised 2/2019
Certification in Pediatric Practice

Program Description:

EIM’s Certification in Pediatric Practice was created for the therapist passionate about advancing their skill and evidence-based knowledge in working with pediatric patients. The goal of the program is to effectively translate that knowledge into optimal critical reasoning and application into practice for families and their children of all abilities. Students will become highly skilled in evaluation, treatment and on-going assessment of the movement system throughout the lifespan. The content is provided in a blended, collaborative learning format allowing the individual practitioner to continue to engage in their professional and personal responsibilities.

Program Objectives

1. Become a certified, highly skilled, autonomous practitioner with advanced clinical competency to transform practice, research, and education.
2. Make evidence-based practice and contemporary frameworks for family and team interaction an immediate reality in your clinical practice.
3. Enhance critical thinking and psychomotor skills to improve decision-making and outcomes of care.
4. Have the opportunity to apply your Certification credit hours towards an EIM Residency or Baylor’s Post-professional OTD programs.
5. Promote the health and wellness of participants and the individuals they serve.

Program Highlights

1. Dynamic interaction with other passionate pediatric practitioners from around the country
2. Opportunity to engage with superior, talented educators and leaders within the profession
3. Expand the body of knowledge in their specialty and ensure high-quality, services in their communities
4. Create a collaborative environment to integrate current evidence in pediatric physical and occupational therapy into various practice settings and experiences

Admission Requirements

1. All applicants must provide a copy of a current and valid license to practice occupational therapy or physical therapy in one of the 50 United States, the District of Columbia, Puerto Rico, or US Virgin Islands. This license must be in good standing.
2. All applicants must have successfully completed a ACOTE accredited professional occupational therapy curriculum or a CAPTE accredited professional physical therapy curriculum, or have had a state occupational therapy or physical therapy board approve the applicant’s first-professional occupational therapy or physical therapy program as “equivalent” to a US AOTA or US CAPTE accredited professional occupational therapy or physical therapy program.
3. If English is not the applicant’s native/first language, specified language proficiency requirements must be met.
**Program Curriculum**

The EIM Certification in Pediatric Practice program consists of 17 credit hours of blended online and onsite learning. The student has 2 years (24 months) of active enrollment to complete the program. The curriculum consists of the following outlined academic courses:

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PEDI 6100</td>
<td>Pediatric Evidence-based Practice</td>
<td>1</td>
</tr>
<tr>
<td>PEDI 6110</td>
<td>Introduction to Pediatric Practice</td>
<td>1</td>
</tr>
<tr>
<td>PEDI 6230</td>
<td>Early Intervention and School-based Practice</td>
<td>2</td>
</tr>
<tr>
<td>PEDI 6510</td>
<td>Management of Pediatric Neurological Conditions</td>
<td>5</td>
</tr>
<tr>
<td>PEDI 6510WI</td>
<td>Management of Pediatric Neurological Conditions Weekend Intensive (this course includes a 2-day onsite)</td>
<td></td>
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<tr>
<td>PEDI 6120</td>
<td>Pediatric Health Promotion and Prevention</td>
<td>1</td>
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<tr>
<td>PEDI 6520</td>
<td>Management of Pediatric Musculoskeletal Conditions</td>
<td>5</td>
</tr>
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<td>Management of Pediatric Musculoskeletal Conditions Weekend Intensive (this course includes a 2-day onsite)</td>
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**Elective Options (Choose Two)**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PEDI 6130</td>
<td>Pediatric Acute Care and NICU</td>
<td>1</td>
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<tr>
<td>PEDI 6140</td>
<td>The Young Athlete</td>
<td>1</td>
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<tr>
<td>PEDI 6150</td>
<td>Transition to Adulthood</td>
<td>1</td>
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<tr>
<td>PEDI 6160</td>
<td>Pediatric Gait and Orthotics</td>
<td>1</td>
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<tr>
<td>PEDI 6170</td>
<td>Upper Extremity Orthotics Application for the Pediatric Client</td>
<td>1</td>
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<tr>
<td>PEDI 6180</td>
<td>Pediatric Wheelchair Seating and Positioning</td>
<td>1</td>
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**Exam**

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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>PEDI 7080</td>
<td>Pediatric Certification Exam</td>
<td>N/C</td>
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</tbody>
</table>

*Elective courses: students are required to complete a minimum of (2)*

17 credits
**PEDI 6100 Pediatric Evidence-based Practice** 1cr

The purpose of this course is to provide participants with the information and skills essential for the evidence-based pediatric physical and occupational therapist. The course will review five steps of evidence-based practice (i.e., asking clinical questions; searching, identifying, and locating the best available evidence; critically appraising the evidence; integrating evidence with clinical experience and patient preferences; and evaluating outcomes). While participants will practice each step; special emphasis will be placed on the critical appraisal of evidence and the evaluation of clinical outcomes.

**Objectives:**

1. Define and describe the 5 steps of evidence-based practice
2. Formulate a focused clinical question
3. Design, perform, and describe a comprehensive literature search
4. Constructively and objectively critique studies and professional presentations
5. Appropriately apply evidence in clinical situations
6. Evaluate clinical outcomes

**PEDI 6110 Introduction to Pediatric Practice** 1cr

This course presents an introduction to and overview of management of children and their families. This course will review general principles of pediatric physical and occupational therapy, which will serve as a foundation for subsequent courses in the Pediatric Certification. Topics covered include, but are not limited to, application of the WHO-ICF for clinical decision-making, motor development and control, family centered care and teaming, and principles of pediatric examination.

**Objectives:**

1. Discuss elements of evidence-informed decision-making in pediatric therapy.
2. Describe normal development and refinement of postural control, mobility control, and reach/grasp in children age birth-21 years.
3. Identify and analyze child development and movement that is not typical.
4. Describe and apply contemporary theories of motor control and development.
5. Apply current evidence and contemporary frameworks for family and team interaction.
6. Identify best practices for authentic assessment, including routines-based interview and naturalistic observation.
7. Select appropriate tests and measures for motor assessment of infants, children, and youth.
8. Use the WHO-ICF in the evaluation process to develop a plan of care that focuses on participation and context.

**PEDI 6230 Early Intervention and School-based Practice** 2cr

This course is designed to provide specialized content essential for the clinician practicing within the context of physical and occupational therapy practice under IDEA in early intervention and school settings. The student will learn to individualize evaluations and assessments to address child, family, and team needs, to develop effective intervention programs, and address health and wellness of this special population. Course content will include, but will not be not limited to, a) philosophical, legislative, and evidence for best practice; b) practice guidelines for assessment and intervention and c) addressing the complexities of needs during critical transitional stages for early intervention and adulthood to youth. Emphasis will be placed on the collaborative development, implementation, and evaluation of the
Individualized Family Service Plan (IFSP) and Individualized Education Program (IEP) through "real life" applications as frameworks for therapy services.

**Objectives:**

1. Define federal, state, and local rules and regulation essential to the role of physical and occupational therapy practice under IDEA: Part C and Part B. (Knowledge Areas - Behavioral Sciences: Law, Family-systems theory, Administration)

2. Administer comprehensive and nondiscriminatory evaluations and assessments to guide individualized accurate and efficient decision-making for PT/OT services

3. Formulate appropriate recommendations based on a synthesis of examination and evaluation findings for the development and implementation of meaningful IFSP/IEPs, including:
   a. Eligibility
   b. Development of functional and measurable goals and objectives
   c. Therapy service recommendations
   d. Specific intervention methods and strategies
   e. Determination of frequency, intensity, and duration
      i. (Evaluation, Diagnosis, Prognosis, Consultation)

4. Integrate evidence-based practices, including clinical expertise and child/family values, for the development of high quality therapy services under IDEA, including (Evidence-based Practice, Interventions, Education)

5. Develop appropriate intervention programs to promote development and facilitate active participation in early intervention or school settings, including
   a. Environmental adaptations
   b. Assisting child, student, and families to promote full inclusion
   c. Varied service delivery models for individualized intervention services
   d. Promotion of skill acquisition, fluency, and generalization to enhance outcomes
   e. Imbedding of interventions in the context of natural routines and schedules.
   f. Producing useful documentation
   g. Evaluation and documentation of the effectiveness of intervention services

**PEDI 6510 Management of Pediatric Neurological Conditions** 5cr
This course will provide the rehabilitation clinician with knowledge and skills in managing neuromotor disabilities to enhance full inclusion and participation in life’s activities for the pediatric client/patient (infancy to early adulthood). This course is designed for the participant to be able to gain knowledge in physiology, pathology, clinical reasoning, evidence-based practice, screening, assessment, and intervention applied to pediatric practice.

This course will include several distinct topics, including: 1) typical and pathological maturation of the brain and nervous system with impact on development; 2) best practice in pediatric neurorehabilitation (family-centered care, prediction, prevention, plasticity, participation); 3) screening, evaluation, and assessment to identify areas of impairment, functional limitations, or activity limitations; 4) developing and implementing family-centered specific plans of intervention for pediatric patient/client diagnosed with neuromuscular dysfunction, and 5) development of appropriate discharge or transitional plans with a lifespan approach for the child and family. This course includes a two day onsite laboratory session is included to provide hands-on demonstration and practice.

**Objectives:**
1. Understand influences of early brain development as critical to maximize neurodevelopmental function
2. Discuss the neurophysiological basis and development of postural control and how it and varies over a lifespan
3. Explain how principles of motor learning and neural plasticity relate to the development of skilled movement and functional mobility during childhood
4. Analyze the impact of pathological processes associated with common pediatric neurologic conditions with impact on functional outcomes (body functions/structures, activities and participation)
5. Analyze and identify motor problems in a child with a neuromotor disability to write appropriate plans of care.
6. Apply understanding of the pathology of the nervous system and developmental maturation into evidence-based treatment plans.
7. Select and perform tests and measures appropriate for your pediatric patient to link impairments, functional limitations, disabilities, and psychosocial factors to the patient’s/clients/family’s/caregiver’s expressed goals.
8. Identify and perform evidence-based interventions tailored to your patient to enhance inclusion and participation in life’s activities.
9. Identify and develop appropriate discharge and/or transition plans as appropriate to your child’s setting.
10. Review the role of assistive technology and environmental adaptations for home and community as an extender of therapy to achieve the best outcomes.
11. Describe how to integrate best practices of pediatric neurorehabilitation into the daily routines of pediatric patients to enhance outcomes.

**PEDI 6120 Pediatric Health Promotion and Prevention** 1cr
This course will provide the clinician with knowledge and resources to optimize health and wellness in infants, youth, and adolescents. The course will cover issues regarding readiness of an individual or caregiver to change behaviors related to health promotion, and interventions to optimize adherence to exercise or other health behaviors to support healthy aging.

**Objectives:**

1. Discuss evidence-based theories of behavior change in a pediatric population.
2. Discuss specific barriers and facilitators to health promotion and illness prevention in a pediatric population.
3. Understand the differences between the implementation of primary, secondary, and tertiary prevention services.
4. Discuss the implementation of wellness and health promotion initiatives for children with specific disabilities, children with general disabilities, children with typical development who are obese.
5. Discuss general considerations for health promotion initiatives in a pediatric population.
6. Understand the role of the physical and occupational therapist as a health consultants in the community.

**PEDI 6520 Management of Pediatric Musculoskeletal Conditions** 5cr
This course will enhance the student’s knowledge and skill level in the evidence-based management of the pediatric patient with musculoskeletal conditions that impact growth and development and restrict participation. Evidence-based examination, medical screening, use of outcome measures, and diagnostic testing for patients with both congenital and acquired musculoskeletal pathology will be discussed. Various treatment approaches and techniques are reviewed with emphasis on therapeutic exercise, dosing and exercise prescription, handling and positioning, and age-appropriate manual therapy. A two
day onsite laboratory session is included to provide hands-on demonstration and practice of examination skills and selected interventions on pediatric patients.

Objectives:

1. Integrate knowledge of foundational sciences related to structure, normal musculoskeletal development and maturation, movement dysfunction, and pathophysiology of congenital conditions to enhance outcomes.
2. Correctly apply the ICF model and elements of patient/client management within the framework of family centered care for children with musculoskeletal conditions and impairments.
3. Develop understanding of medical management, including diagnostic testing, pharmacology, and surgical procedures, of selected musculoskeletal disorders.
4. Perform a systematic examination and medical screening of patients with selected musculoskeletal disorders in order to guide evaluation, diagnosis/prognosis, intervention, and referral as needed.
5. Select appropriate outcome measures and developmental testing for selected musculoskeletal disorders.
6. Discuss appropriate exercise prescription and progression for children with chronic, acute, or acute-on-chronic orthopedic conditions.
7. Demonstrate appropriate therapeutic exercise (handling/positioning, activity based interventions, and manual techniques) and indirect interventions needed (equipment, bracing, team collaboration) for children with selected musculoskeletal disorders.
8. Determine appropriate use of orthotics, splints, and adaptive equipment based on available evidence.

Electives- online, self-directed (CHOOSE TWO)

PEDI 6130 Pediatric Acute Care and NICU

The course will provide the learner with evidence based research that will contribute to the development and implementation of evaluation and intervention programming within a NICU environment. The learner will gain knowledge about typical equipment, terminology, healthcare providers roles in the NICU as well as common theoretical frameworks for providing developmental therapy within the NICU environment.

Note for PT's: PT practice in the NICU environment is not considered entry level practice by the Section on Pediatrics (APTA), students are strongly advised to complete a formal mentoring process in NICU practice before working independently within a NICU environment.

Objectives:

1. Discuss the theoretical basis and the evidence based outcomes for therapy services in the NICU.
2. Identify typical terminology, equipment, and roles of team members used in the NICU.
3. Identify the state behaviors displayed and common self-regulatory signals displayed by infants in the NICU.
4. Discuss and identify the tests and measures utilized for evaluation and examination of infants in the NICU.
5. Provide rationale for selection of a therapeutic intervention with an infant and their family/caregiver while in the NICU.
6. Provide evidence based thoughts and comments for recommendations of follow up care of an infant and family/caregiver after discharge from the NICU.
**PEDI 6140 The Young Athlete**

This course is designed to provide therapists with the latest research and recommendations pertaining to fitness and sports participation throughout various pediatric age groups. Current guidelines for strength, flexibility and cardiovascular training, as well as weight management and nutrition guidelines will be provided to enhance both the clinicians and researchers’ approach to a Lifespan Fitness Approach for All Children. Therapist may use guidelines to establish treatment programs for clients, consult schools, and community leaders, respond to the media, conduct research related activities and establish community based programming to promote fitness and appropriate sports participation.

**Objectives:**

1. Upon completion of this course, you will be able to: Discuss the Study of Developmental Biomechanics: Birth-Young Adult
2. Describe Guidelines for Flexibility, Strength, & Cardiovascular Training in Children & Adolescents
3. Describe Guidelines in Body Composition, Weight Management & Nutrition
   Incorporate & Model Fitness & Sport Programs for All Abilities
5. Apply This Information to The Formulation of Treatment Goals & Interventions Aimed at Improving Sports Performance & Fitness Levels in Children.

**PEDI 6150 Transition to Adulthood**

This course will enhance the student’s knowledge and skill level in the evidence-based management as the adolescent with childhood onset disability transitions to adulthood. Transition to Adult Healthcare and Transition Under the Individuals with Disabilities Education Act using evidence-based examination and age appropriate outcome measures will be discussed. Interventions approaches focusing procedural interventions, dosing, equipment/adaptations, and team collaboration for Transition to Work, Postsecondary Education, and Adult living environments will be presented addressing the client strengths, needs, and preferences across all dimensions of the ICF.

**Objectives:**

1. Describe current evidence promoting successful transition to adulthood.
2. Integrate practical ideas for evaluation, IEP process and intervention during the transition process across the ICF into practices
3. Illustrate transition team planning, family support, interagency collaboration, and role of related service providers in the transition process
4. Integrate available lecture information into case study activities
5. Identify the critical issues in the lives of people with lifelong disabilities as they transition from pediatric to adult healthcare systems.
6. Discuss Methods to Evaluate, provide intervention and advocate for people with lifelong disabilities across practice settings and specialty practice Women’s Health, acute care, geriatrics, nursing homes, outpatient clinics, orthopedic/sports
7. Analyze the unique role of therapists in supporting people with lifelong disabilities and how critical issues impact current and future PT/OT practice.
PEDI 6160  Pediatric Gait and Orthoses  
This course will review the development of gait in typical children, and identify key phases of the gait cycle that may influence orthotic prescription. Various types of orthoses as well as the evidence for their efficacy will be discussed, with an emphasis on 3 populations: cerebral palsy, myelomeningocele, and hypotonia. Contemporary motor learning theories will be reviewed and then applied to the application of orthoses for children with movement disorders. Current controversies and gaps in the evidence will be highlighted along with suggested strategies for orthotic decision making in light of these controversies.

Objectives:

1. Discuss the development and maturation of gait for typically developing children and identify implications for intervention for children with movement disorders.
2. Review the common types of pediatric orthoses, including their indications, precautions, and contraindications.
3. Appraise the current evidence for orthotic efficacy for cerebral palsy, myelomeningocele, and hypotonia.
4. Apply motor learning theory, knowledge of typical gait development, and current evidence for decision-making for orthotic prescription.
5. Discuss current controversies and gaps in the evidence and identify strategies for decision making for orthotic intervention.

PEDI 6170 Upper Extremity Orthotics Application for the Pediatric Client  
This course will provide therapists with an overview of pediatric upper extremity anatomy and types of injury as well as a working knowledge of the application, assessment and function of pediatric orthotics. Specific pediatric considerations will be discussed, as well as various splint materials characteristics including but not limited to memory, stretch, and conformability. Common pediatric diagnoses, which often warrant upper extremity orthotics use, will be introduced.

Objectives:

1. Understand the history of orthotics application (Module 1)
2. Examine the intricacies of pediatric anatomy & kinesiology as it relates to splint/orthotic application (Module 1)
3. Explain the role of orthotics in the management of diagnoses involving the pediatric hand (Module 2)
4. Describe the process of fabricating short thumb opponens and static finger orthotics (Module 2)
5. Compare and contrast the use of cast application versus splints/removable orthotics (Module 3)
6. Describe the process of fabricating a reverse sugar tong splint and static elbow orthotics (Module 3)
7. Summarize the process of fabricating a Sup-ER orthotic for pediatric brachial plexus injury (Module 4)

PEDI 6180 Pediatric Wheelchair Seating and Positioning  
This course will provide therapists with a working knowledge of performing a pediatric wheelchair seating and positioning assessment, troubleshooting existing seating systems and incorporating current evidence into therapeutic practice to improve seating and positioning outcomes for pediatric wheelchair users. Specific pediatric considerations will be discussed, as well as evaluation and assessment techniques, measurement acquisition, and equipment options. Common pediatric diagnoses, which often warrant wheelchair use, will be introduced, with detailed instruction regarding the development of letters of medical necessity for equipment obtainment.
Objectives:

1. Compare the differences that must be considered when seating a child as compared to an adult. (Module #1)
2. Describe a neutral sitting posture and methods to identifying pelvic neutrality. (Module #1)
3. Summarize the components involved in the performance of a pediatric seating evaluation, including measurement obtainment, identification of asymmetries and patient assessment.
4. Understand the general progression for wheelchair equipment selection and identify at least three (3) examples of seating and mobility equipment for use with pediatric clients.
5. Recognize specific seating considerations for various diagnoses including spina bifida, muscular dystrophy and cerebral palsy.

PEDI 7080 Pediatric Certification Capstone Exam

This capstone course consists of the final examination for Pediatric Certificate Program students. Pediatric certificate students will complete a final comprehensive written exam that focuses on the knowledge and clinical problem-solving skills necessary for advanced pediatric practice.