

## **Integrated Clinical Education Course Descriptions and Examples**

Integrated clinical education (ICE) experiences are authentic clinical opportunities designed to help students integrate in a clinical setting the knowledge and skills gained during each semester of didactic work and to model professional behavior. These experiences also provide an opportunity to gain context for future coursework. Clinical learning opportunities and experiences depend on semester coursework and student experience (beginner / intermediate / advanced). Clinical settings may include hospitals, outpatient centers, skilled nursing facilities, home health agencies, rehabilitation centers, and federal/state facilities (including public schools) of various types, as well as simulated clinical education experiences. Students apply their knowledge and behaviors and practice their skills in a clinical setting in small student groups (3-4 students) with a designated supervisor/clinical instructor (CI) to gain practical experience with health-care delivery systems and physical therapy practice.

The ICE curriculum consists of six courses that occur across the first two years of the DPT curriculum. Each ICE course schedule, expectations and assignments vary and are consistent with educational outcomes and align with didactic coursework.

### **Year 1 Integrated Clinical Experiences (ICE)**

Learner competence is expected to be at the novice/beginner level. Students will require close supervision and feedback. Students should demonstrate good professional behaviors and safety in the clinical setting. Students should show steady progression towards increasing independence and mastery of behaviors and skills, as appropriate.

#### **ICE 1**

The focus in the first semester of didactic work is on the basic sciences (human anatomy and physiology); functional anatomy (clinical biomechanics); basic patient care skills (wheelchair mobility, positioning, transfers, vital signs, range of motion, gait training); and fundamental evaluation skills (goniometry and manual muscle testing). The students should know basic medical terminology and the essentials of documentation using primarily a SOAP format.

Students will be gaining experience in the following physical therapy skills and behaviors by working in small student groups at the following clinical sites (examples):

- Introduction to Clinical Care: Vital signs, transfers and room set up—WCU CHHS Simulation Lab
- Exam I: Patient interview, vital signs, and tests and measures—Movement for Life, Candler NC
- Exam I: Patient interview—MAPHealth Clinic

#### **ICE 2**

The focus in the second semester of didactic work is on the basic sciences (human anatomy, physiology, applied pathophysiology and neuroscience); functional anatomy (clinical biomechanics/movement science); basic patient care skills (wheelchair mobility, positioning, transfers, vital signs, range of motion, gait training); and fundamental evaluation skills (goniometry

and manual muscle testing). The students should know basic medical terminology and the essentials of documentation using primarily a SOAP format.

Students will be gaining experience in the following physical therapy skills and behaviors by working in small student groups at the following clinical sites (examples):

- Exam I & II: Components of PT examination, including but not limited to manual muscle testing and goniometric measurement—MAPHealth Cullowhee or Asheville
- Introduction to Clinical Care: Components of PT examination and interventions, including but not limited to chart review, subjective interview, acute care screen, transfers, room set up, leads and lines, etc.— Mission Hospital in Asheville
- Exam I & II, Professional Development: Components of PT examination, including but not limited to subjective interview, objective exam / tests and measures, PT diagnosis / synthesis of findings: Simulation clinic in HHS with standardized patients

### **ICE 3**

The focus in the third semester of didactic work is on the basic PT sciences with regards to cardiopulmonary PT (Integration of knowledge to perform PT examination, evaluation, and intervention for patients with cardiovascular and/or pulmonary dysfunction); introduction to human development (including foundations and assessment of normal development); introduction to concepts related to health promotion and wellness; medical screening and diagnostics; and an introduction to PT interventions (principles of therapeutic exercise and physical agents). Students have also completed didactic coursework and ICE experiences related to the basic sciences (human anatomy and physiology); functional anatomy (clinical biomechanics); basic patient care skills (wheelchair mobility, positioning, transfers, vital signs, range of motion, gait training); and fundamental evaluation skills (goniometry and manual muscle testing). The students should know basic medical terminology and the essentials of documentation using primarily a SOAP format. Students will be gaining experience in the following physical therapy skills and behaviors by working in small student groups at the following clinical sites (examples):

- Introduction to Development / Pediatrics: pediatric examination of a typically developing child
- Cardiopulmonary PT: Hospital simulation cases – WCU HHS Simulation Lab
- Introduction to Interventions: Clinical reasoning and basic components of PT interventions—MAPHealth Cullowhee/Asheville/Honduras

### **Year 2 Integrated Clinical Experiences (ICE)**

Students should begin to gain an understanding of all aspects of the patient/client management model, especially with regards to prognosis and the evaluation of the plan of care. Learner competence is expected to be at the advanced beginner / intermediate level. Students will require close supervision and feedback. Students should demonstrate good professional behaviors and safety in the clinical setting. Students should show steady progression towards increasing independence and mastery of behaviors and skills, as appropriate.

Students complete a four-week clinical block which consists of 4 clinical experiences: two one-hour Zoom meetings and two clinic sessions with a primarily musculoskeletal or neuromuscular patient population. During Zoom sessions, students work through a video case progression series with their clinical instructor with a focus on PT examination, PT intervention, and treatment progression/regression. Students work with this same clinical instructor for two days in their clinic setting having an opportunity to apply their knowledge, skills and behaviors learned through the second year of didactic coursework. Additionally, second-year students work together with first-year DPT students to lead three MAPHealth clinic sessions (domestic and/or international telehealth) while facilitating first-year student learning.

#### **ICE 4**

The focus in the fourth semester of didactic work is on the physical therapy sciences with regards to musculoskeletal and neuromuscular PT (integration of knowledge to perform PT examination, evaluation, and intervention for patients with musculoskeletal and/or neuromuscular dysfunction):

- Musculoskeletal PT: musculoskeletal dysfunction of the spine
- Neuromuscular PT: stroke, balance dysfunction, selected neuromuscular diseases, rehabilitation models

Students have also completed didactic coursework and ICE experiences related to the basic sciences (human anatomy and physiology); functional anatomy (clinical biomechanics); basic patient care skills (wheelchair mobility, positioning, transfers, vital signs, range of motion, gait training); fundamental evaluation skills (goniometry and manual muscle testing); PT evaluation and treatment of cardiopulmonary conditions; introduction to human development (including foundations and assessment of normal development); introduction to concepts related to health promotion and wellness; medical screening and diagnostics; and an introduction to PT interventions (principles of therapeutic exercise and physical agents). The students should know basic medical terminology and the essentials of documentation using primarily a SOAP format.

#### **ICE 5**

The focus in the fourth semester of didactic work is on the physical therapy sciences with regards to musculoskeletal and neuromuscular PT (integration of knowledge to perform PT examination, evaluation, and intervention for patients with musculoskeletal and/or neuromuscular dysfunction):

- Musculoskeletal PT: musculoskeletal dysfunction of the spine
- Neuromuscular PT: stroke, balance dysfunction, selected neuromuscular diseases, rehabilitation models

Students have also completed didactic coursework and ICE experiences related to the basic sciences (human anatomy and physiology); functional anatomy (clinical biomechanics); basic patient care skills (wheelchair mobility, positioning, transfers, vital signs, range of motion, gait training); fundamental evaluation skills (goniometry and manual muscle testing); PT evaluation and treatment of cardiopulmonary conditions; introduction to human development (including foundations and assessment of normal development); introduction to concepts related to health promotion and wellness; medical screening and diagnostics; and an introduction to PT interventions (principles of therapeutic exercise and physical agents). The students should know basic medical terminology and the essentials of documentation using primarily a SOAP format.

### **ICE 6**

The focus in the sixth semester of didactic work is on pediatric PT (integration of knowledge to perform PT examination, evaluation, and intervention for pediatric patients with musculoskeletal and/or neuromuscular dysfunction); care of select populations (comprehensive study of conditions commonly requiring physical therapy management including wound care, rheumatology, women's health, urinary incontinence, and amputee and prosthetics); and leadership and management in PT practice.

Students have also completed all other didactic coursework and ICE experiences related to the integration of basic sciences; basic patient care skills; PT evaluation and treatment (of cardiopulmonary conditions, musculoskeletal dysfunction, and neuromuscular conditions); concepts related to health promotion and wellness; medical screening and diagnostics; and evidence informed practice. The students should know medical terminology and the essentials of documentation using primarily a SOAP format.

Students will be gaining experience in the following physical therapy skills and behaviors by working in small student groups at the following clinical sites (examples):

- Management of complex inpatient cases with standardized patients and direction of a PT aide: Simulation lab
- PT examination and intervention: MAPHealth
- PT screening / exam / intervention : ELECTIVE EXPERIENCES include MAPHealth Mobile (injury screens with migrant farm workers, WCU marching athletes) , MAPHealth telehealth, travel course to Honduras, pediatric elective