

PT 523: LIFESPAN I (Fall 2022)

DESCRIPTION:

This course is designed to provide students with the knowledge and skills they need to provide care to pediatric populations. This course refines and allows for the theoretical understanding and clinical application of pediatric physical therapy examination, evaluation, diagnosis, prognosis, intervention, and outcomes.

CAPTE Standards & Elements:

Standard 7: Elements 7A, 7B, 7C, and 7D as appropriate based upon the age-appropriate patient case.

DEPARTMENT OFFERING THE COURSE AND INSTRUCTOR(S):

Physical Therapy

Credit Hours:

Three (3) credit hours

Instructor(s):

- Mohamed Elhamadany, PT, MS, PhD, DPT, PCS
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- Emily Henneman, PT, DPT, GCS
701-777-3673. emily.henneman@und.edu

CLOCK HOURS:

Lab/Lecture/Applications: Tuesday: 10:00 a.m. – 12 p.m. & 1– 3 p.m.; Friday: 1 – 3 p.m.

COURSE PREREQUISITES:

Registered in Professional Physical Therapy Curriculum.

COURSE OBJECTIVES:

Upon completion of this course, the student should be able to:

1. **Development of Human Movement System:** Analyze the development of movement skills and integrate knowledge of human development (motor, psychosocial, cognitive, and communication) with clinical decision making. Students will build upon concepts of normal development, motor control, and motor learning to address the physical therapy needs of children
2. **Age-appropriate patient/client management:** Demonstrate appropriate performance of developmental screening for growth and motor delays/impairments, parent or child interview/history with systems review, selection of appropriate test and measures and interpretation of findings, and development and implementation of appropriate, child/family centered, pediatric plans of care addressing interventions, adaptive equipment, orthoses, and supports.
3. **Family-centered Care:** Consistently collaborate with families in the patient/client management process, address family priorities and the role of the family under the Individuals with Disabilities Education Act, Parts B and C and other aspects of care,

analyze the influence of the child with special needs on the family system and factors within the family system that influence the child's growth and development, and demonstrate effective education of others using culturally competent, lay terminology with children, families, and other non-medical professionals.

4. **Health Promotion and Safety:** Develop plans to promote age-appropriate health and wellness, make appropriate determination of the need for referrals to other health care professionals, and develop age-appropriate educational materials, using lay terminology, to address safety and environmental influences.
5. **Legislative, Policy, and Systems:** Demonstrate understanding of the characteristics of pediatric service provision in various pediatric settings, identify the required elements of IFSP and IEP and provide appropriate education on the tenants of IDEA, demonstrate the ability to write appropriate family centered IFSP goals and educationally relevant IEP goals, and demonstrate an understanding of requirements for mandatory reporting of suspected child abuse, neglect, and bullying.
6. **Evidence-based Practice:** Student will be able to describe/define selected pediatric conditions including but not limited to: Cerebral Palsy, Torticollis, Down syndrome, Myelodysplasia, Muscular Dystrophy, Spinal Muscular Atrophy, Common Genetic Disorders, Common Orthopedic Conditions, Common Cardiopulmonary conditions, Fitness and childhood obesity, Autism spectrum, and other...
 - Differentiating diagnosis
 - Differentiating prognosis
 - Determining the correct pediatric practice pattern from the APTA Guide to PT Treatment
 - Describe etiology, pathology, and signs/symptom
 - Justify clinical disposition
 - Describe, justify, determine role of PT in care

Course content and objectives have been designed to address the five essential core competencies for entry-level Doctor of Physical Therapy graduates as outlined in Rapport et al. Essential Competencies in entry-level pediatric physical therapy education. *Pediatr Phys Ther* 2014; 26:7-18.

The above objectives also contribute to the Practice Model Components of Foundational Science; Clinical Science, Professional Practice, and Patient/Client Care & Practice Management.

TEACHING METHODS AND LEARNING EXPERIENCES: A problem-oriented model which incorporates a variety of team activities is used throughout the course to guide critical inquiry, clinical decision-making and patient management for specific, common pediatric conditions. Lectures, laboratory application activities and experiential learning experiences in various community health fairs are also implemented to promote examination, evaluation, and intervention skills and planning

Experiential Learning Experiences

The Department of Physical Therapy has multiple opportunities for students to participate in

clinical practice activities under the supervision of UND faculty, all of whom are licensed physical therapists. During this particular course, you may be required to participate in the examination, evaluation, and physical therapy interventions of community members. You will be providing primary care to individuals with impairments and/or dysfunction during laboratory classes, community health fairs, pro bono clinics, and/or within traditional clinical practices.

METHODS OF EVALUATION:

Written Examinations

Practical Applications

Grading:

A	90% - 100%
B	80% - 89.9%
C	76% - 79.9%
F	< 76%

Assessment Implementation and Documentation:

Students will be required to participate actively in class and small group discussions and demonstrate competency in course content through:

- Quizzes up to 25%
- Practical Exam up to 20%
- lab/class Activities/ Attendance /Participation up to 5%
- Prepare and orally present a case study portfolio up to 20%
- Comprehensive Final Exam up to 30%

Examinations:

Students are expected to pass written and laboratory examinations. Passing scores for written and laboratory exams are 76% and 80% respectively. Failure to successfully complete a practical examination will result in one retake examination to demonstrate proficiency. Inability to obtain a passing score on two attempts may result in failure of the course. See the UND-PT *Scholastic Standards* document for further reference.

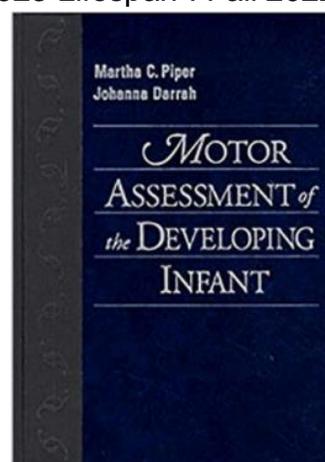
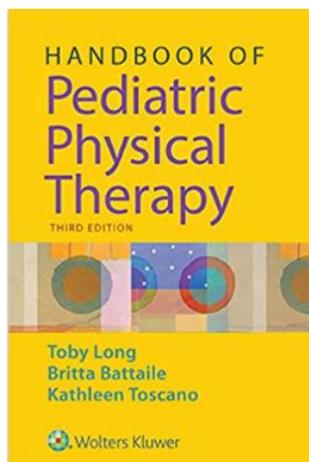
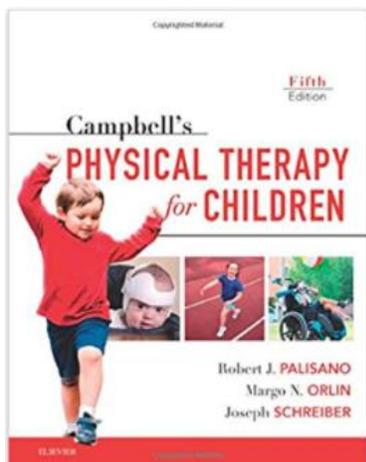
TEXTBOOK AND OTHER LEARNING RESOURCES:

Required Reading:

- Palisano, RJ, Orlin. MN, Schreiber J. Campbell's Physical Therapy for Children (5th Ed) (Campbell's), Required
- Long T, Battaile B, Toscano K. Handbook of Pediatric Physical Therapy (3rd Ed), (Long's) Required

Recommended Readings:

- Phipper, M. D., Darrah, J. Motor Assessment of the Developing Infant (AIMS), (Phipper's), Recommended



Additional reading assignments are made according to the assessment instruments utilized.

ATTENDANCE:

Class attendance is expected 100% of the time. Students must first attempt to notify the instructor by phone or in person for any absences. The student must also contact the instructor directly through e-mail or written documentation for any absences.

Make Up Work/Examinations:

Arrangements for make-up examinations must be made *by the student within three days* of the student's return to classes **for all absences**. **Students may be assigned additional coursework for all absences**. Students will not be allowed to make-up in-class quizzes/projects due to an absence.

ACADEMIC INTEGRITY:

In accordance with the rules concerning scholastic dishonesty in the *Code of Student Life** at the University of North Dakota, I affirm that I understand these rules and I agree to comply with them. I will not:

- a. receive any additional information or assistance for any exam other than what was provided during class or approved tutor sessions
- b. copy from another student's test
- a. collaborate with or seek aid from another student who may have previously taken the exam
- b. knowingly use, buy, sell, steal, or solicit in whole or in part the contents of any exam
- c. bribe another person to obtain information about any exam

DISABILITY ACCESS STATEMENT:

Contact me, FACULTY (office 777-3689, email mohamed.elhamadany@med.und.edu, or visit Rm E-34X UND SMHS) to request disability accommodations, discuss medical information, or plan for an emergency evacuation. To get confidential guidance and support for disability accommodation requests, students are expected to register with DSS at www.UND.edu/disability-services/, 180 McCannel Hall, or 701.777.3425.

NOTICE OF NONDISCRIMINATION: It is the policy of the University of North Dakota that no person shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, genetic information, marital status, veteran's status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Director of Equal Employment Opportunity/Affirmative Action and Title IX Coordinator, 401 Twamley Hall, 701.777.420181, und.affirmativeactionoffice@UND.edu or the Office for Civil Rights, U.S. Dept. of Education, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.

REPORTING SEXUAL VIOLENCE: If you or a friend has experienced sexual violence, such as sexual assault, domestic violence, dating violence or stalking, or sex-based harassment, please contact UND's Title IX Coordinator, Donna Smith, for assistance: 701.777.420181; donna.smith@UND.edu or go to UND.edu/affirmative-action/title-ix.

FACULTY REPORTING OBLIGATIONS REGARDING SEXUAL VIOLENCE: It is important for students to understand that faculty are required to share with UND's Title IX Coordinator any incidents of sexual violence they become aware of, even if those incidents occurred in the past or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow UND to provide resources to help the student continue to be successful at UND. If you have been the victim of sexual violence, you can find information about confidential support services at UND.edu/affirmative-action/title-ix.

OMBUDS OFFICE: "It is not our differences that divide us. It is our inability to recognize, accept, and celebrate those differences" (Audre Lorde). Before your differences with others become difficult and costly conflicts or formal grievances, in both seen and unseen ways, talk with the Ombuds Office in an informal, identity-protecting, impartial, and independent space. 314 Cambridge St Room 201. 701.777.6239. www.UND.edu/ombuds.

UND CARES RESPONSE TEAM: The [UND Cares Response Team](#) is available to assist with incidents involving UND students 24 hours a day, seven days a week. They respond to incidents such as major accidents, missing students, sickness that interferes with attending classes, death, suicidal ideations, situations involving self-harm, psychological trauma and sexual violence. Contact directly at 701.777.2664 during regular business hours OR 701.777.3491 after hours. *If problems occur, students are required to work through channels of communication to resolve the problem before going to the chair or dean. The channel is student, instructor, chair, associate dean health sciences, and dean.* rev 2/06, 5/06, 5/07, 4/08, 5/09, 5/10, 5/11, 8/13, 8/14, 8/15, 8/16, 11/18

COVID-19 SPECIAL STATEMENT:

UND is committed to maintaining a safe learning environment while providing quality learning experiences for our students. COVID-19's continued presence within our UND community may necessitate changes in classroom management as the academic year progresses. As such, UND asks students and instructors to be flexible when necessary to promote a safe environment for

learning. Please do not attend an in-person class or lab if you are feeling ill, particularly if you are experiencing symptoms of COVID-19, or if you have been directed by health professionals to quarantine or isolate. If you are not able to attend class or lab, please notify your instructor as soon as possible and discuss options for making up any missed work in order to ensure your ability to succeed in the course. If you will have an extended absence due to serious illness or other uncontrollable circumstances, you may request an absence notification through the [Office of Student Rights and Responsibilities](#). Similarly, if your instructor is ill they may need to cancel class or temporarily move your course to online delivery to ensure that you are able to complete the course successfully. Instructors may require students to wear masks in the classroom or in the laboratory as a preventative measure designed to facilitate uninterrupted classroom engagement and to facilitate health and safety in the classroom. If your instructor does require masks in class or in a laboratory, you are expected to comply with that request.

UND also strongly encourages all members of the University community, including students, to get vaccinated, seek out testing when needed, and model positive behavior both on- and off-campus to foster a healthy and safe learning environment for all students. Individuals who would like to discuss disability accommodations regarding masks should contact the Disability Services for Students (DSS) office at 701-777-2664 or UND.dss@UND.edu. Individuals who are unable to wear a mask due to a sincerely held religious belief should contact the UND Equal Opportunity and Title IX Office at 701.777.4171 or UND.EO.TitleIX@UND.edu.

OUTLINE OF CONTENT AND ASSIGNED INSTRUCTOR: See attached course schedule

Tuesday Class: 10 a.m. – 12 p.m.

Tuesday & Friday Split Lab (Lab days Switch on 9/27/2022)

- 1st Lab, Team 1-5, Tuesday (1 p.m. – 3 p.m.) - 2nd Lab, Team 6-10, Friday (1 p.m.–3 p.m.)

Weeks	TOPIC & ASSIGNMENT		
MODULE #1: PEDIATRIC PT TOOLKIT			
Week 1	<ul style="list-style-type: none"> - Motor development theories (Pipper's) - Movement System Development (0-12m) (Long's Ch.1) 	Aug. 23, W202 No Lab	ME, EH out
Week 2	<ul style="list-style-type: none"> - Movement System Development (1-5yrs) (Long's Ch.1) - Gait development (Campbell's Ch.34) <p>Lab: - Constraints to Movement System Development - Assessment of Reflexes</p>	Aug. 30, W202 Aug.30 & Sep.2, E311/E312	ME, EH
Week 3 <i>Sep. 5 Labor Day</i>	<ul style="list-style-type: none"> - Foundations of Pediatric Examination/Parent Interview - Screening for Functional and Motor Abilities - QUIZ #1 cover module 1 <p>Patient Portfolio - Topic 1: Group Submission Due Sep. 6</p> <p>Lab: Screening for Functional and Motor Abilities: - AIMS (Pipper's); PDMS; HELP</p>	Sep. 6, W202 Sep.6&9, E311/E312	JB
MODULE #2: PEDIATRIC NEUROLOGY			
Week 4	Cerebral Palsy- Background Information (Campbell's Ch.19): <ul style="list-style-type: none"> - Etiology, Classification, and Examination, - GMFCS - QUIZ #2 <p>Lab: EXPERIENTIAL LEARNING EXPERIENCES I (site visit to GF daycares)</p>	Sep. 13, W202 Sep.13&16 Tuesday afternoon and Friday all-day	ME, EH
Week 5	Cerebral Palsy-Foreground information (Campbell's Ch.19): <ul style="list-style-type: none"> - Diagnosis, Prognosis, and Intervention - Case Scenario, Applications - QUIZ #3 <p>Patient Portfolio - Topic 2: Group Submission Due Sep. 20</p> <p>Lab: Intervention Approaches</p>	Sep. 20, W202 Sep.20&23, E311/E312	ME, EH
Week 6	Neurological conditions: <ul style="list-style-type: none"> - Myelodysplasia (Campbell's Ch.23) - Perinatal Brachial Plexus Injury (PBPI) (Campbell's Ch.20) - QUIZ #4 <p>Lab: Intervention Approaches</p>	Sep. 27, W202 Sep.27 &30, E311/ E312	ME, EH
Week 7	Neurological conditions: <ul style="list-style-type: none"> - SCI (Campbell's Ch.21) - TBI (Campbell's Ch.22) - QUIZ #5 <p>Patient Portfolio - Topic 3: Group Submission Due Oct. 4</p>	Oct. 4, W202	EH, ME

Weeks	TOPIC & ASSIGNMENT		
	Lab: Intervention Approaches	Oct. 4&7, E311/E312	
	MODULE #3: PEDIATRIC ORTHOPEDIC		
Week 8	Musculoskeletal development & adaptation (Campbell's Ch.5): <ul style="list-style-type: none"> - Torsional profile (Campbell's Ch.14) & DDH - Common pediatric deformities (Campbell's Ch.14) - QUIZ #6 Lab: PT Examination for Children with Orthopedic conditions	Oct. 11, W202 Oct. 11&14, E311/E312	ME, EH
Week 9	Orthopedic Conditions -I Campbell's Ch.14): <ul style="list-style-type: none"> - DDH - Blount's Disease - Causes of Pain & Limp in Growing Skelton - QUIZ #7 Tues Lab: EXPERIENTIAL LEARNING EXPERIENCES II: Assistive Technology (Altru Performance Center)	Oct. 18, W202 Oct. 18 Teams 6 – 10: (5:30 -6:30 p.m.), Teams 1 – 5: (6:30 -7:30 p.m.)	ME, EH LO
	MANAGEMENT OF PULMONARY CONDITIONS <ul style="list-style-type: none"> - Asthma (Campbell's Ch.27) - CF (Campbell's Ch.26) 	Oct. 21, E312 The whole class	EH, ME
Week 10	Orthopedic Conditions -II: <ul style="list-style-type: none"> - JIA; AMC; OI (Campbell's Ch.7, 10, 11) - Sports-related injury in children (Campbell's Ch.15) - QUIZ #8 Lab: Orthotics for pediatric patients	Oct. 25, W202 Oct.28, E312 The whole class No lab on Tuesday	ME EH out KB
Week 11	Orthopedic Conditions -III: <ul style="list-style-type: none"> - Muscular Dystrophies and Spinal Muscular Atrophy (Campbell's Ch.12) - Congenital Muscular Torticollis (CMT) & Cranial deformation (Campbell's Ch.9) - QUIZ #9 	Nov. 1, W202	ME, EH LO
	Practical Exam	Nov. 4, E312 The whole class	ME, EH
Week 12	MODULE #4: PEDIATRIC CARDIOPULMONARY & NICU		
Nov.11 Veteran's Day	<ul style="list-style-type: none"> - Introduction to NICU - Infant and toddler vitals - Congenital heart Conditions (Campbell's Ch.28) - QUIZ #10: cover pediatric cardiopulmonary conditions 	Nov. 8 (10-12), W202	EH, ME

PT 523 Lifespan-I Fall 2022

Weeks	TOPIC & ASSIGNMENT		
	Patient Portfolio - Topic 4: Group Submission Due Nov. 8		
	Children with Multiple Disabilities - Integrated Case Studies	Nov. 8 (1-3pm), W202 The whole class No lab on Friday	ME, EH
Week 13	MODULE #5: FOUNDATIONS OF GENETIC DISORDERS & ASD		
	- Foundations of Genetic Disorders - Down Syndrome (DS) - Autism spectrum disorder (ASD) (Campbell's Ch.24) - Application: DS, ASD Case studies - QUIZ #11: cover module 5 Lab: EXPERIENTIAL LEARNING EXPERIENCES III : Site visit GF and Fargo Pediatric clinics/schools	Nov. 15, W202 Nov. 15 & 18 Tuesday afternoon and Friday all-day	EH, JB ME out on 11/18
Week 14	MODULE #6: FOUNDATIONS OF LEGISLATIVE MANDATES		
	- Early Intervention/ IDEA PART C (Campbell's Ch.30) - Vestibular Dysfunction in infants/kids - Applications: EI case studies Patient Portfolio - Topic 5: Group Submission Due Nov 22 Thanksgiving Break Nov 23-25- No lab	Nov. 22, W202 No lab on Tuesday	EH, NN ME out on 11/22
Week 15	Educational Environment / IDEA PART B (Campbell's Ch.31) - Applications: case studies from the school environment - QUIZ #12: cover module 6	Nov. 29, W202	ME, EH
	PATIENT PORTFOLIO: Students Presentation		
	15-minute presentation on students' patient portfolio to the class Team 1-5	Nov. 29, W202 The whole class	ME, EH
	15-minute presentation on students' patient portfolio to the class Team 6-10	Dec 2, W202 The whole class	ME, EH
Week 16	PT 523 Final Written Exam		

** Please note experiential learning experiences are subject to change due to inclement weather and or facilities needing to cancel the site visit. You will be notified of change ASAP.