

PT 623 Management of the Pediatric Patient

Fall 2024

Wednesday 7:30 - 9:30 am, Rm E312

Friday 8:00 - 11:00 am, Rm W202



COURSE 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:

UND School of Medicine and Health Sciences - Department of Physical Therapy

CREDIT HOURS: Three (3) credit hours.

THE PROFESSOR & CONTACT INFORMATION:

- Lead Faculty: Mohamed Elhamadany, PT, Ph.D., MS, DPT, PCS
Phone: (701)777-3689; Email: mohamed.elhamadany@und.edu
Office Location: UND-SMHS Suite E321, Room 354
- Community Faculty:
 - Nicole Nord, PT, DPT
 - Liz Olson, PT, DPT, PCS
 - Jordan Bahr, PT, DPT
 - Katie Buck, DPT
- Faculty Resident: Jessica Barczy Zorn, PT, DPT

COURSE CONTACT HOURS:

Schedule (Clock hours): 62 - Lab/Lecture/ Discussion/Applications.

COURSE PREREQUISITES:

Registered in the professional Physical Therapy program.

COURSE OBJECTIVES:

After successfully completing this course, you 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, and 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

COURSE SCHEDULE AND OUTLINE OF CONTENT:

- See schedule on page #6 of syllabus

DESCRIPTION OF TEACHING METHODS AND LEARNING EXPERIENCES:

- A problem-oriented model that incorporates various team activities is used throughout the course to guide critical inquiry, clinical decision-making, and patient management for specific, common pediatric conditions. Lectures, Case scenarios, 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.

COURSE MODE OF DELIVERY:

- In-person

MATERIALS – TEXT, READINGS, & SUPPLEMENTARY READINGS:

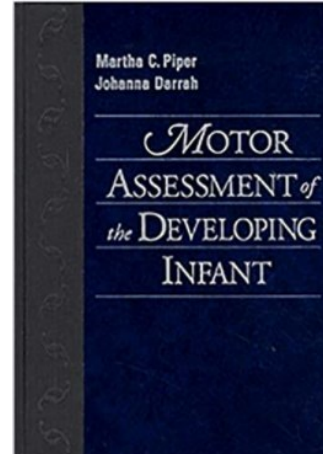
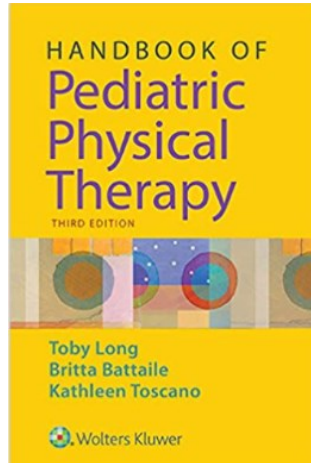
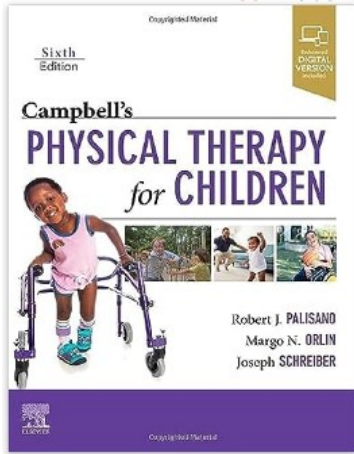
Materials include course notes, PowerPoints, and textbooks

Required Reading:

- Palisano, RJ, Orlin. MN, Schreiber J. Campbell's Physical Therapy for Children (6th Ed) (Campbell's), Required
- Long T, Battaile B, Toscano K. Handbook of Pediatric Physical Therapy (3rd Ed), (Long's) Required

Recommended Readings:

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



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

METHODS OF STUDENT EVALUATION:

In this course, your learning will be assessed in the following ways:

- Written Examination.
- Practical Examination.

GRADING SCALE:

Grading Scale		Breakdown
A	90% to 100%	- Exam 1, II, III & IV: up to 40%
B	80% to 89.9%	- Practical Exam: up to 15%
C	76% to 79.9%	- Assignments/ Attendance/Participation: up to 5%
F	< 76%	- Written projects involving patient portfolio: up to 15%
		- Comprehensive Final Exam: up to 25%

For more information on grading policies, please refer to the [UND-PT Scholastic Standards Document](#)

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. The 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

COURSE ACCESS & TECHNICAL REQUIREMENTS

This course was developed and will be facilitated utilizing Blackboard. For access go to: <http://blackboard.UND.edu> and log in with your NDUS.Identifier. If you do not know your NDUS Identifier or have forgotten your password, please visit [Your NDUS Account Webpage](#)

Visit the [UND Technical Requirements](#) webpage for more information. Students are expected to use their official UND email in the course. For technical assistance, please contact [UND Technical Support](#) at 701.777.2222

ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence tools are allowed in this course as approved by the instructor(s). Students are required to disclose if they use AI-generated text or images and how they apply it in their work. Failure of students to acknowledge their use of AI or using fabricated information could result in their violation of the Academic Integrity Policy. Students must ensure the originality of their work, maintain academic integrity, and avoid any type of plagiarism. The students need to understand the material and complete assignments on their own, using AI tools as a supplement rather than a replacement for their work. Students should not use sources that are cited by AI tools without having read them because generative AI tools can either create fake citations or cite a real piece of writing, but the cited content may be inaccurate. The faculty reserves the right to use various plagiarism-checking tools in evaluating students' work, including those screening for AI-generated content, and impose consequences accordingly.

For more information on AI Policies, please visit [Artificial Intelligence Resources](#).

UNIVERSITY OF NORTH DAKOTA POLICIES & RESOURCES:

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, Assistant Vice President for Equal Opportunity and Title IX/ADA Coordinator, 401 Twamley Hall, 701.777.4171, UND.EO.TitleIX@UND.edu or the Office for Civil Rights, U.S. Dept. of Education, 230 S. Dearborn St., 37th Floor, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.

The full [Notice of Non-discrimination](#) is available online through Equal Opportunity & Title IX.

Academic Integrity

Academic integrity is a serious matter, and any deviations from appropriate behavior will be dealt with strongly. At the discretion of the professor, situations of concern may be dealt with as a scholastic matter or a disciplinary matter.

As a scholastic matter, the professor has the discretion to determine appropriate penalties for the student's workload or grade, but the situation may be resolved without involving many individuals. An alternative is to treat the situation as a disciplinary matter, which can result in suspension from the University, or have lesser penalties. Be aware that I view this as a very serious matter and will have little tolerance and/or sympathy for questionable practices. A student who attempts to obtain credit for work that is not their own (whether that be on a paper, quiz, homework assignment, exam, etc.) will likely receive a failing grade for that item of work, and at the professor's discretion, may also receive a failing grade in the course. For more information read the [Code of Student Life](#).

Accessibility Statement

The University of North Dakota is committed to providing equal access to students with documented disabilities. To ensure access to this class and your program, please contact [Accessibility for Students](#) to engage in a confidential discussion about accommodations for the classroom and clinical settings.

Accommodations are not provided retroactively. Students are encouraged to register with [Student Disability Resources](#) at the start of their program. More information can be obtained by email, UND.sdr@UND.edu, or

by phone at 701.777.2100.

Religious Accommodations

UND offers religious accommodations, which are reasonable changes in the academic environment that enable a student to practice or observe a sincerely held religious belief without undue hardship on the University. Examples include time for prayer or the ability to attend religious events or observe a religious holiday. To request an accommodation, complete the [student religious accommodation request form](#). To learn more, please consult UND's [Religious Accommodations Policy](#) or contact the [Equal Opportunity & Title IX Office](#).

Pregnancy Accommodations

Students who need assistance with academic adjustments related to pregnancy or childbirth may contact the [Equal Opportunity & Title IX Office](#) or Academic Affairs to learn about your options. Additional information and services may be found at [Pregnancy Resources](#) and in UND's [Protections for Pregnant and Parenting Students and Employees Policy](#).

Resolution of Problems

Should a problem occur, you should speak to your instructor first. If the problem is not resolved by speaking with your instructor, refer to the college grievance policy by contacting the department chair or the dean's office. [Link to college grievance policy.] Should the problem persist after taking these initial steps, you have the right to go to the provost next, and then to the president.

Reporting of Discrimination, Harassment, or Sexual Misconduct

If you or a friend has experienced sexual misconduct, such as sex-based harassment, domestic violence, dating violence, or stalking, please contact the [Equal Opportunity & Title IX Office](#) or UND's Title IX Coordinator, Donna Smith, for assistance at 701.777.4171 or donna.smith@UND.edu.

You may also contact the Equal Opportunity & Title IX office if you or a friend has experienced discrimination or harassment based on a protected class, such as race, color, national origin, religion, age, disability, sex, sex characteristics, sexual orientation, gender identity, genetic information, pregnancy, marital or parental status, veteran's status, or political belief or affiliation.

Faculty Reporting Obligations Regarding Discrimination, Harassment, or Sexual Misconduct

It is important for students to understand that faculty are required to share with [UND's Equal Opportunity & Title IX Office](#) any incidents of potential sexual misconduct or of discrimination or harassment based on a protected class that 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 impacted by discrimination, harassment, or sexual misconduct, you can find information about confidential support services at the [Equal Opportunity & Title IX](#) webpage.

Health and Safety

UND is committed to maintaining a safe learning environment and asks students and instructors to be flexible when necessary to promote quality learning experiences.

Please do not attend an in-person class or lab if you are feeling ill or if you have been directed by health professionals to stay home.

- 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.
- If you will have an extended absence due to serious illness or other uncontrollable circumstances, you may request an absence notification through [Community Standards and Care Network](#).
- If your instructor is ill, they may need to cancel class or temporarily move your course to online delivery.

Please contact [Student Health Services](#) if you have health questions by calling 701.777.4500 or visiting myhealth.und.edu

PT 623 Management of the Pediatric Patient

Weeks	TOPIC & ASSIGNMENT		
MODULE #1: PEDIATRIC PT TOOLKIT			
Week 1	Class: - Motor development theories (Pipper's) - Movement System Development (0-12m) (Long's Ch.1)	Aug. 28, E312	ME, NN, JZ
	Class: - Movement System Development (1-5yrs) (Long's Ch.1) - Gait development (Campbell's Ch.34)	Aug. 30, W202	ME
Week 2 <i>Sept.2 Labor Day</i>	Lab: - Constraints to Movement System Development - Assessment of Reflexes	Sept. 4, E312	ME, NN, JZ
	Class: - Foundations of Pediatric Examination/Parent Interview - Screening for Functional and Motor Abilities	Sept. 6, W202	ME
Week 3	Lab: Screening for Functional and Motor Abilities: - AIMS (Pipper's); PDMS; HELP	Sept. 11, E312	ME, JB, JZ NN
	MODULE #2: PEDIATRIC NEUROLOGY		
	Exam I: Cover Module 1 Class: Cerebral Palsy- Background Information (Campbell's Ch.19): - Etiology, Classification, and Examination, - GMFCS Patient Portfolio - Topic1: Group Submission Due Sept. 13	Sept. 13, W202	ME
Week 4	Class: Cerebral Palsy-Foreground information (Campbell's Ch.19): - Diagnosis, Prognosis, and Intervention - Case Scenario, Applications	Sept. 18, E312	ME, NN, JZ
	Lab: EXPERIENTIAL LEARNING EXPERIENCES I (site visit to GF daycares)	Sept.20 & 23 Friday and Monday 8-12 (PT604 TAs will be scheduled on Friday)	ME
Week 5	Lab: Common Pediatric Outcome Measures (GMFM, BOT-II)	Sept. 25, E312	ME, NN, JZ
	Class: Neurological conditions: - Myelodysplasia (Campbell's Ch.23) - Perinatal Brachial Plexus Injury (PBPI) (Campbell's Ch.20) Patient Portfolio - Topic 2: Group Submission Due Sept. 27	Sept. 27, W202	ME
Week 6	Lab: Intervention Approaches I	Oct. 2, E312	ME, NN, JZ

Weeks	TOPIC & ASSIGNMENT		
	Class: Neurological conditions: <ul style="list-style-type: none"> - SCI (Campbell's Ch.21) - TBI (Campbell's Ch.22) 	Oct. 4, W202	NN, ME
	MODULE #3: PEDIATRIC ORTHOPEDIC		
Week 7	Lab: Intervention Approaches II Class: 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) Patient Portfolio - Topic 3: Group Submission Due Oct. 11	Oct. 9, E312 Oct. 11, W202	ME, NN, JZ ME
Week 8	Lab: Intervention Approaches III Midterm Exam (Exam II: Cover Module 2)	Oct. 16, E312 Oct. 18, W202	ME, NN, JZ ME
Week 9	Lab: PT Examination for Children with Orthopedic Conditions Class: Orthopedic Conditions -I Campbell's Ch.14): <ul style="list-style-type: none"> - DDH - Blount's Disease - Causes of Pain & Limp in Growing Skelton 	Oct. 23, E312 Oct. 25, W202	ME, NN, JZ ME
Week 10	Class: 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) Lab: EXPERIENTIAL LEARNING EXPERIENCES II: Assistive Technology (Altru Performance Center)	Oct. 30, E312 Oct. 30 Teams 6 – 10: (5:30 -6:30 p.m.), Teams 1 – 5: (6:30 -7:30 p.m.)	ME, NN, JZ LO
	Class: Orthopedic Conditions -III: <ul style="list-style-type: none"> - Muscular Dystrophies and Spinal Muscular Atrophy (Campbell's Ch.12) - Congenital Muscular Torticollis (CMT) and cranial deformation (Campbell's Ch.9) Lab: Orthotics for pediatric patients	Nov. 1(8-10), W202 Nov. 1, (10-12) W203	ME, LO KB, ME
Week 11	Practical Exam	Nov. 6, (7:30-12) E312	ME, JZ, NN
	Exam III: Cover Module 3	Nov. 8, W202	ME
	Meeting with FLS Students Patient Portfolio - Topic 4: Group Submission Due Nov. 8	Nov. 8, W202	JZ, ME
Week 12 Nov.11 Veteran's	Lab: EXPERIENTIAL LEARNING EXPERIENCES III: Site	Nov. 13, 15 & 18	ME

Weeks	TOPIC & ASSIGNMENT		
Day	visit GF and Fargo Pediatric clinics/school		
Week 13	MODULE #4: PEDIATRIC CARDIOPULMONARY		
	Class - Asthma (Campbell's Ch.27) - CF (Campbell's Ch.26) Class - Introduction to NICU - Infant and toddler vitals - Congenital heart Conditions (Campbell's Ch.28)	Nov 20 E312 Nov. 22, E312	NN, ME, JZ NN, ME,
Week 14	Thanksgiving Break Nov 27-29- No Class		
Week 15	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	Dec. 4 E312	JB, ME, NN, JZ,
	MODULE #6: FOUNDATIONS OF LEGISLATIVE MANDATES		
	Exam IV: Cover Module 4&5 - 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 Dec. 6 Children with Multiple Disabilities - Integrated Case Studies	Dec. 6 (8-10) W202 Dec. 6, (10-12) E221	NN, ME, JZ ME
Week 16	Educational Environment / IDEA PART B (Campbell's Ch.31) - Applications: case studies from the school environment	Dec. 11, E312	JZ, ME, NN,
	PATIENT PORTFOLIO: Students' Presentation		
	15-minute presentation on students' patient portfolio to the class Team 1-5	Dec. 13, (8-10) W202	ME
	15-minute presentation on students' patient portfolio to the class Team 6-10	Dec 13 (10-12) W202	ME
Week 17	Final week Dec. 16 - 20 PT 623 Final Written Exam (Commutative)		

** 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.