

PT 420: Musculoskeletal System Examination (2021)

Description:

Theory and application of basic physical therapy examination, evaluation and intervention techniques

Department Offering the Course:

Physical Therapy

Credit Hours:

2 credit hours

Instructor(s):

Dr. Steven Halcrow, Dr. Meridee Danks, Dr. Michelle LaBrecque Dr. Schawnn Decker, Dr. Ricky Morgan

Clock Hours:

Lecture & Lab: 10am-12pm, Tuesday & Thursday

Room: E312 Therapy Laboratory

Course Prerequisites:

Registered in Professional Physical Therapy curriculum

Course Objectives:

At the completion of the course each student will be able to:

A. Examine muscle strength using manual muscle testing and determine the appropriate muscle grade.

1. Define manual muscle testing, and discuss the purposes of manual muscle testing.
2. Discuss the reliability and validity of manual muscle testing.
3. Define and describe the muscle strength grading system.
4. Perform manual muscle testing for a given muscle or muscle group, demonstrating proper positioning, patient instruction, and palpation of the muscles being tested.
5. Determine the appropriate muscle strength grade based on the performance of the patient.
6. Identify substitution patterns common to individual muscle tests.
7. Examine a simulated patient to evaluate muscle strength and analyze the potential for specific etiologies assigned (nerve root versus peripheral nerve injury, muscle injury versus neurological injury, etc.)

B. Examine joint range of motion using goniometric measurements and determine the available ROM.

1. Demonstrate the correct technique of joint range of motion measurement for all joints of the extremities including proper patient positioning and instruction, correct alignment of the goniometer and correct reading of the goniometer.

2. Examine the presence of normal and abnormal range of motion in a given subject, and record the findings using proper nomenclature.
3. State the normal range of motion for each joint.
4. Discuss the purpose, clinical uses, and the reliability of goniometric measurements.

C. Palpate and identify anatomical landmarks and structures.

1. Identify and palpate bony landmarks and superficial muscles of each body region.
2. Identify and palpate (where possible) major joint structures including ligaments and bursae.
3. Identify the location of, and palpate (where possible) major nerves and blood vessels.
4. Apply the anatomical landmarks to manual muscle testing and goniometry.
5. Apply the anatomical landmarks to musculoskeletal examination procedures.

Outline of Content and Assigned Instructor:

See attached course schedule.

Description of Teaching Methods and Learning Experiences:

Lecture, Small Group Application Activities, Laboratory

Methods of Evaluation:

GRADING:

A	90% - 100%
B	80% - 89.99%
C	76% - 79.99%
Unsatisfactory	75.99% or below

Medical Terminology Examination:	(Pass/Fail)
Practical Examinations:	Up to 120 pts
3 Written Quizzes:	Up to 90 pts

All practical examinations require an 80% to pass. If an 80% is not attained, you will be required to undergo remediation and retesting of the practical examination. However, the first practical score will be retained for grading purposes

Textbook and Other Learning Resources:

Required Readings: Bring Texts to class to use as lab manuals as per syllabus schedule
 Biel, Trail Guide to the Body, (B) (Latest Ed) (TG)
 Cram Session in Goniometry and Manual Muscle Testing (Latest edition) (CS)

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
- c) collaborate with or seek aid from another student who may have previously taken the exam
- d) knowingly use, buy, sell, steal, or solicit in whole or in part the contents of any exam
- e) bribe another person to obtain information about any exam

Department of Physical Therapy Honor Code Pledge:

“Upon my honor as a professional student in the physical therapy program at the University of North Dakota, I pledge that I will not give nor receive unauthorized aid on written examinations, laboratory practical examinations, written assignments, take home assignments or clinical assignments”

Examination disclaimer: “I affirm that I have adhered to the Honor Code in this assignment”

A. Forms of Academic Dishonesty. Academic dishonesty includes, but is not limited to:

1. Copying or distributing examination items
2. During testing, using crib notes or various forms of technology not authorized by faculty
3. Copying another student's written paper or examination, with or without their knowledge
4. Helping someone else cheat on a test
5. Communicating or collaborating during a test by electronic means such as instant messaging, telephone, texting, smart watches, or social media.
6. Discussing test items or answers (written or laboratory) with students who have not yet taken the examination
7. Cutting and pasting text from any source without giving proper citation to that source
8. Plagiarism of any materials
9. Fabricating or falsifying written materials
10. Falsely reporting information or actions in clinical or classroom laboratories
11. Submitting the same paper, or a substantially similar paper, for the requirements of more than one course without the approval of the instructor(s) concerned
12. Submitting term papers or assignments written by another person
13. Consenting to having one's work used by another student as his or her own
14. Collaborating on a project (in person or via electronic means) when the instructor asked for individual work
15. Using a false excuse to obtain an extension on a due date or delay an examination

16. Depriving other students of necessary course materials by stealing books, periodicals, or other materials from libraries, AV centers, etc.

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, 8/19

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, 701.777.4171, 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

DISABILITY ACCESS STATEMENT

Contact me Steven Halcrow at steven.halcrow@ndus.edu or 701.777.3857 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 UND.edu/disability-services 180 McCannel Hall, or 701.777.3425.

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: 701.777.4171; 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.

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 University Police Department 701.777.3491 after hours.

COVID-19 SPECIAL STATEMENT:

All members of the University community have a role in creating and maintaining a COVID-19 resilient campus. There are several expectations from the School of Medicine and Health Sciences that require compliance, including: Wear face coverings during interactions with others and in the classroom; Wash hands often and use hand sanitizer; Properly clean spaces; and, if you are experiencing any symptoms, Stay home and call your health care provider. Students who fail to comply with any of the COVID related requirements will not be permitted in the classroom and may be subject to disciplinary action. We encourage all members of the University community to model positive behavior both on- and off-campus. Any changes in the SMHS COVID related requirements will be communicated to you through the Friday weekly email “For your health” from the Dean’s office and email from the program director or chair.

Students who test positive for COVID-19 are expected to immediately self-isolate/quarantine. If you have tested positive for COVID-19 we strongly recommend that you report the information to the Office of Student Rights and Responsibilities at 701.777.2664 or online at <https://veoci.com/veoci/p/w/ss2x4cq9238u>. Doing so will ensure students have the support they need to continue with their academic goals and to protect others. The policy related to COVID-19 may change throughout the semester due to community spread and updated CDC guidelines. Please check the policy frequently and ask faculty if you have any questions.

Date	Outline of Content	
Aug 24	Introduction to the course; TBL Groups – pictures and names due Thursday SURFACE ANATOMY: <i>(Note: For all SURFACE ANATOMY: Bring your text: TRAIL GUIDE TO THE BODY (TG) to class for all lab sessions covering surface anatomy)</i> Introduction: Basic Concepts of MMT and ROM	
Aug 26	MEDICAL TERMINOLOGY EXAM	
Aug 31	SURFACE ANATOMY: Back: Cervical, Thoracic & Lumbar Spine (TG pp. 168-172) Shoulder (TG pp. 46 – 60, 67-73, 76-93) <u>WEAR Lab Clothing for this and all following labs.</u>	
Sept 2	Practice TBL Syllabus Quiz SURFACE ANATOMY: Hip & Knee (TG pp 278-295, 309-	Steve

Date	Outline of Content	
	327,339,341-42, 346-353)	
Sept 7	ROM: Hip (CS pp. 98-109, pp. 275-302); Knee (CS pp. 110 – 115, pp 303-310)	Ricky
Sept 9	MMT: Hip (CS pp. 98-109, pp. 275-302); Knee (CS pp. 110 – 115, pp 303-310)	Meridee
Sept 14	ROM & MMT: Hip & Knee <i>Application Activities #1</i>	Steve
Sept 16	GRADED TBL Quiz #1 (Basics to Goni/MMT, Hip/Knee) SURFACE ANATOMY: Foot & Ankle (TG pp 354-365, 371-391)	Ricky
Sept 21	MMT: Foot & Ankle (CS pp. 116 – 146, pp.311-337) ROM: Foot & Ankle	Meridee Steve
Sept 23	ROM & MMT: Foot & Ankle	Meridee Steve
Sept 28	<u>ROM Reliability Assessment</u> Review of LE	Steve
Sept 30	Graded Quiz TBL #2 (Lower Extremity) Designing Your Roadmap For Success	Ricky/Steve
Oct 5	TBL/Jigsaw Review (Will know group 1 week in advance)	Steve
Oct 7	Mock Practical: Comprehensive Review: Surface Anatomy, LE MMT, ROM Procedures	Steve
Oct 12	PRACTICAL EXAM LE ROM, MMT & Surface Anatomy (half class will take on this date)	
Oct 14	PRACTICAL EXAM LE ROM, MMT & Surface Anatomy (half of class will take on this date)	
Oct 19	SA: Cervical/Thoracic/Lumbar/Shoulder MMT for Core	Steve
Oct 21	Shoulder ROM and MMT	Ricky
Oct 26	MMT: Shoulder (CS pp. 169-183)	Meridee

Date	Outline of Content	
Oct 28	MMT: Shoulder	Meridee
Nov 2	Shoulder ROM and MMT: <i>Application Activities #2</i>	Ricky/Meridee
Nov 4	SURFACE ANATOMY: Elbow and Wrist (TG pp.95-106, 108-117, 127-148, 160-162)	Ricky
Nov 9	SURFACE ANATOMY: Hand (TG pp 118-126, 149-159, 163-164) ROM & MMT: Elbow & Wrist (CS pp 36 - 51, pp. 205-224)	Ricky Steve/Meridee
Nov 11	<i>Veterans Day – No Class</i>	
Nov 16	ROM & MMT: Elbow & Wrist (CS pp 36 - 51, pp. 205-224)	Steve/Meridee
Nov 18	ROM & MMT: Hand (CS pp. 52 -82, pp. 225 – 241) <i>Application Activities #3</i>	Steve/Meridee
Nov 23	GRADED TBL Quiz #3 – Shoulder, Elbow, Wrist & Hand ROM & MMT: Hand (CS pp. 52 -82, pp. 225 – 241)	Steve/Meridee
Nov 25	<i>Thanksgiving Day – no class</i>	
Nov 30	<i>Application activities #4</i>	Steve
Dec 2	<u><i>TBL/Jigsaw Review</i></u>	Steve
Dec 6-10	Comprehensive Final– Practical Only 8am-12pm – E312	

*Outline of content subject to change