**DPT 730 Musculoskeletal Physical Therapy I**

Syllabus

4 Credits(2 credits lecture; 2 credit lab)

Fall - Year 1

Wednesdays 9:30-11:20a B140 Science Building

**Course Instructor:** Chris Durall, PT, DPT, MS, SCS, ATC, CSCS

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# **Course Lab Assistant:** Nathan Brown, DPT

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Office: B150 Science Building

Phone: 715-346-4870 (DPT Main office)

**Course Description:** This is the first of a three-part series on musculoskeletal physical therapy. The course will introduce students to principles of physical therapy examination, evaluation, and management for non-specific musculoskeletal concerns and for common pathologies of the hip, knee, lower leg, ankle, and foot. Soft tissue and joint manual therapy principles and techniques will also be introduced along with indications and contraindications for their use in physical therapy. The lab portion of the course will focus on development of physical examination and treatment skills through peer interaction, simulation, instructor demonstrations and competency skills checks. In addition, there will be select activities on campus and in the community with uncomplicated adult clients representative of those seen in physical therapy practice.

**Course Prerequisites:** Enrollment in the Doctor of Physical Therapy Program

# **Course Learning Outcomes:** *(cross reference Section 7 CAPTE competencies in parentheses)*

1. Recognize foundational concepts of human anatomy, kinesiology, and biomechanics applied to client centered clinical reasoning (7A, 7C)
2. Demonstrate musculoskeletal examination techniques effectively with stakeholders (clients, families, communities, peers, and other professionals) (7B) (7D7) (7D12)
3. Describe how concepts of differential diagnosis and principles of clinical reasoning with musculoskeletal examination and physical therapy practice can optimize patient/client, family, and community outcomes (7D20-22)
4. Summarize musculoskeletal rehabilitation concepts for medical and surgical conditions encountered across the lifespan (7C)
5. Explain how clinical reasoning and critical analysis of scientific literature to form a physical therapy diagnosis and make clinical judgements regarding musculoskeletal conditions (7D9) (7D20 -22)
6. Discuss how client perspectives and values, professional judgement, and clinical reasoning should be used to complete a systems review (7D18) and establish a musculoskeletal rehabilitation plan with an uncomplicated adult client (7D10-11)
7. Demonstrate tests and measures of: Anthropometric assessment (7D19b), Cranial nerve (7D19g), Joint integrity (7D19k), Joint range of motion/goniometry (general and specific) (7D19k, 7D19s), Skeletal integrity through assessment of bony landmarks (7D19v), Muscle performance (strength, power, endurance, and length) (7D19o), Posture assessment (7D19r), Motor Function (7D19n), Pain (7D19q), Reflex Integrity (7D19t), Sensory Integrity (7D19u) as part of an orthopedic examination with an adult client.
8. Select and perform the following interventions for musculoskeletal rehabilitation plans of care with uncomplicated adult clients, monitoring and adjusting the plan of care according to client response (7D30): assistive technology (7D27b); biophysical agents (7D27c); functional training (7D27d); integument repair and protection (7D27e); manual therapy (including mobilization/manipulation thrust and non-thrust techniques) (7D27f); motor function (7D27g); patient/client education (7D27h); therapeutic exercise (7D27i)
9. Describe appropriate documentation for musculoskeletal clients that follow guidelines and specific formats required by state practice acts, practice setting, and other regulatory agencies (7D32)
10. Recognize common pathologies and differential diagnoses associated with musculoskeletal conditions in adult clients (7A, 7C)
11. List key components of a safe and effective musculoskeletal Plan of Care (POC) and discontinuation of POC including client goals, expected outcomes, resources, prognosis, and stakeholder collaboration (7D23) (7D24) (7D26)
12. Explain how the plan of care should be modified based on client response to standardized tests and measures appropriate for the functional or physical impairment (7D28-31)
13. Demonstrate professional values, ethics, and responsibilities into all aspects of learning (7D1-6)

# **Teaching Methods:** Lecture, synchronous remote instruction, asynchronous instruction/independent reading/leaning, lab activities, small group discussion

# **Methods of Evaluation/Course Requirements**

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| --- | --- | --- | --- |
| **Assignment** | **Brief Description** | **Points / Percentage** | **Learning Outcomes Met (#)** |
| Course competencies | *Competencies associated with DPT 730 in the competency portfolio* | Pass/Fail | 1-13 |
| Learning assessments x 12 | Brief assessments will be available on the course Canvas site for students to complete after viewing lecture videos. Each assessment can be taken up to five times and the highest score will be retained for grading. | 5, 10, or 20pts. each; 110 pts. total | 1,3,4,6-8,10,12 |
| Written unit exams x 4 | Multiple-choice unit exams | 50 pts. each; 200 pts. total | 1,3,4,6-8,10,12 |
| MSK examination templates x 4 | Students will create clinical examination templates for each MSK region in the course | 25 pts. each; 100 pts. total | 1,3 |
| Documentation assignments x 2 | Students will submit a clinical note for a hypothetical patient in SOAP format | 25 pts. each; 50 pts. total | 9 |

# **Extra credit**

Students may earn additional points toward their cumulative grade by identifying FACTUAL errors in the course content. The FIRST student to report a factual error to the course instructor will receive 0.5 points toward their final course grade after the instructor reviews and verifies the error.

# **Grading Scale**

Courses in the DPT program have adopted the following grading scale.

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| --- | --- | --- |
| 94 – 100% =A | 77 – 79% = C+ | 60 – 63% = D- |
| 90 – 93% = A- | 74 – 76% = C | < 60% = F |
| 87 – 89% = B+ | 70 – 73% = C- |  |
| 84 – 86% = B | 67 – 69% = D+ |  |
| 80 – 83% = B- | 64 – 66% = D |  |

# **Grading of Competency Portfolio**

# Student competencies are graded as Pass/Fail. Students must receive a pass on all required competencies for that academic term in order to pass the class. For a list of competencies associated with this course, please refer to the competency portfolio.

* The combined lab will have a sign-up process for instructor assessment of competencies. Students are encouraged to proactively schedule assessments to avoid end of semester difficulty in getting the competencies completed.
* Grading policies for competencies:
  + Assessments by Peers: Students are allowed unlimited attempts
  + Assessment by Instructors: Students are allowed unlimited attempts. Students are allowed unlimited attempts for level 1 and level 2a assessments. Students who do not receive a pass attempt are required to get an additional peer assessment prior to scheduling a re-assessment. Students are not allowed to schedule a re-assessment for the same lab period. At instructor discretion, additional preparation may be required prior to scheduling a re-assessment.
  + Assessment in the clinic (Level 2b assessments): Students are allowed unlimited attempts. Because level 2b assessments involve community members in the clinic or in the classroom, these assessment opportunities are not fully replicable. As 2b assessments involve community members, student preparation for a second attempt requires at minimum a 2a level of re-evaluation prior to a scheduled second attempt in the clinic environment. Conditions for a re-assessment after a second attempt are at the discretion of the course instructor.
  + Level 3 assessments organized in the clinic or as part of the combined lab are unique and not replicable. Because level 3 assessments are not required for all competencies, these are scheduled by the course instructor. Students must have level 2 competencies completed before participating in a level 3 competency.

# **Required Course Materials**

Required Texts (NOTE: The required texts will be used for all 3 of the MSK courses)

Dutton M. *Dutton's Orthopaedic: Examination, Evaluation and Intervention.* 5th Ed. McGraw-Hill; 2019. NOTE: The 6th Ed. is scheduled to be released in September 2022. If you are a heavy textbook user, I’d encourage you to wait to purchase the 6th Ed.

Biel A. *Trail Guide To The Body*. 6th Ed. Books of Discovery; 2019.

Quinn L, Gordon J. *Documentation for Rehabilitation: A Guide to Clinical Decision Making in Physical Therapy*. 3rd Ed. Saunders; 2015.

Course Readings: See course schedule for readings. Readings can be accessed via the above texts or the course Canvas site.

Supplemental Materials: See Canvas modules

Cleland J, Koppenhaver S, Su J. *Netter's Orthopaedic Clinical Examination: An Evidence-Based Approach.* 4th Ed. Saunders/Elsevier; 2021.

Cook CE, Hegedus E. *Orthopedic Physical Examination Tests: Pearson New International Edition.* 2nd Ed. Pearson Education; 2013.

Magee D, Manske R. (eds.). *Orthopedic Physical Assessment*. 7th Ed. Saunders; 2021

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# **Office Hours:**

# Drop-in office hours are **Monday 11:00-11:50 & Tuesday 3:00-4:00**

# Drop-in office hours are available without an appointment. Drop in can be either face to face or electronic. If electronic, I will be available through e-mail, phone, or videoconference during the office hours window (I will monitor e-mail during my office hours).

# **Individual meetings can be arranged through an email request, phone call, or conversation directly before or after class.** Normal office hours will not be held during Thanksgiving week, Spring Break, Finals Week.

**Course Schedule:**

*The instructor reserves the right to modify the course schedule to meet the learning needs of the course.*

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| --- | --- | --- | --- | --- |
| **Date** | **Content** | **Assignments (see course Canvas site)** | **Lab Activities (see course Canvas site)** | **Learning Outcomes** |
| Week  1 | Course Intro & Overview of Canvas Course Site  Module 1: The MSK Exam Process | 1. View Intro to MSK Courses in the “Course Information” module in Canvas 2. View Module 1 MSK Exam Overview lecture 3. Complete Learning Assessment: Overview of the MSK Exam 4. View Module 1 The Subjective MSK Exam lecture 5. Complete Learning Assessment: The Subjective Exam 6. Readings: see Canvas | 1. Intro to Subjective Exam 2. Intro to Self-Report Measures 3. Intro to Posture / Observation 4. Intro to End-Feels 5. Intro to Palpation 6. Intro to ROM Assessment 7. Intro to Upper- & Lower Limb Tension Tests | 1-3, 5, 6, 11-13 |
| Week  2 | Module 1 continued | 1. View The Objective MSK Exam Parts 1-4 lecture 2. Complete Learning Assessment: The Objective MSK Exam Parts 1-4 3. View The Objective MSK Exam Parts 5-6 lecture 4. Complete Learning Assessment: The Objective MSK Exam Parts 5 & 6… 5. Readings: see Canvas 6. PART 1: Prepare & submit a Generic MSK Exam Template (See Canvas—**due 9/19**) | Use this week to complete any remaining week 1 activities if needed  Start on LLAF COMPETENCIES ***especially palpation*** (Use “Trail Guide…” textbook and associated online videos to assist w/ palpation) | 1-3, 5-7, 11-13 |
| Week  3 | Module 2: Intro to Manual Therapy | 1. View Intro. to Manual Therapy lecture 2. Complete Learning Assessment: Intro. to Manual Therapy 3. Readings: See Canvas 4. PART 2: Submit a revised Generic MSK Exam Template (See Canvas—**due 9/26**) 5. Integration & Review for Unit 1 Exam | Manual Therapy Directed at Muscle &/or Fascia  Select Joint Mobilization Techniques  LLAF COMPETENCIES | 1, 8, 13 |
| Week  4 | **Unit 1 MC exam (9/28)** |  | Integration & Review for Unit 1 Exam | 1, 3, 4, 7, 13 |
| Week  5 | Module 3: Lower Leg, Ankle, Foot (LLAF) Exam & Intervention | 1. View LLAF Exam Pt 1 & Pt 2 lectures 2. Complete Learning Assessment: LLAF Exam 3. Readings: see Canvas 4. PART 1: Prepare & submit a LLAF examination template (see Canvas—**due 10/10**) | Foot-Posture Index  LLAF COMPETENCIES | 1-3, 5-8, 10-13 |
| Week  6 | Module 3 continued | 1. Readings: see Canvas 2. View LLAF Tx Intro..., Common Ankle Problems, LLAF Tendinopathies lectures 3. PART 1: Prepare & submit a LLAF SOAP note (see Canvas—**due** **10/10**) | LLAF COMPETENCIES | 1-13 |
| Week  7 | Module 3 continued | 1. View Select Foot Conditions, Orthotics & Lacing, & Congenital LLAF Problems lectures 2. Complete Learning Assessment: LLAF Pathologies & Intervention 3. PART 2: Submit a revised LLAF exam template (see Canvas—**due** **10/23**) 4. PART 2: Submit a revised LLAF SOAP note (see Canvas—**due** **10/23**) 5. Integration & Review for Unit 2 Exam | LLAF COMPETENCIES | 1-8, 10-13 |
| Week  8 | **Unit 2 exam (10/26)** |  | Integration & Review for Unit 2 Exam | 1-8, 10-13 |
| Week  9 | Module 4: Knee Exam & Intervention | 1. View Knee Exam Pt 1 & 2 lectures 2. Complete Learning Assessment: Knee Exam 3. Readings: see Canvas 4. PART 1: Prepare & submit a Knee examination template (see Canvas—**due 11/7**) | Knee COMPETENCIES | 1-8, 10-13 |
| Week  10 | Module 4 continued | 1. View Knee Intro & OA, Knee Cartilage Lesions, Knee Ligament Injuries lectures 2. Readings: see Canvas 3. PART 1: Prepare & submit a Knee SOAP note (see Canvas—**due** **11/7**) | Knee COMPETENCIES | 1-13 |
| Week  11 | Module 4 continued | 1. View PFPS, & Patellar Dislocation… lectures 2. Complete Learning Assessment: Knee Pathologies & Intervention 3. PART 2: Submit a revised Knee SOAP note (see Canvas—**due** **11/14**) 4. Integration & Review for Unit 3 Exam | Knee COMPETENCIES | 1-13 |
| Week  12 | **Unit 3 Exam (11/23)** |  | Integration & Review for Unit 3 Exam | 1-8, 10-13 |
| Week  13 | Module 5: Hip & Thigh Exam & Intervention | 1. View Hip Exam lecture 2. Complete Learning Assessment: Hip & Thigh Exam 3. Readings: see Canvas 4. PART 1: Prepare & submit a Hip & Thigh examination template (see Canvas—**due 12/05**) | Hip COMPETENCIES | 1-8, 10-13 |
| Week  14 | Module 5 continued | 1. View Hip Treatment Pt 1 & Pt 2 lectures 2. Complete Learning Assessment: Hip & Thigh Pathologies & Intervention 3. Readings: see Canvas 4. PART 2: Submit a revised Hip & Thigh examination template (see Canvas—**due 12/12**) 5. GUEST: Anthony Thompson, PT (Return to Play After LE Injury) | Hip COMPETENCIES | 1-8, 10-13 |
| Week 15 | Module 5 continued | 1. GUEST: Nathan Brown, PT (Running Assessment) 2. Integration & Review for Unit 4 Exam | Hip COMPETENCIES | 1-8, 10-13 |
| Week 16 | **Unit 4 exam (TBA)** |  | Integration & Review for Unit 4 Exam | 1-8, 10-13 |