PT 7556: Musculoskeletal System Examination & Management II

Course Description: This course builds upon knowledge and concepts learned in PT 7353 as the student physical therapist gains the knowledge and skill sets to effectively manage patients/clients with musculoskeletal dysfunctions in different regions of the body. Elements of patient management include examination, evaluation and diagnosis with special attention to differential diagnosis and screening strategies, identification of patient/client problems, prioritization of goals, treatment selection and provision including manual therapy techniques, therapeutic exercise and physical agents. Critical appraisal of musculoskeletal test characteristics, critical thinking, and evidence-based practice are emphasized.

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GUEST LECTURERS: Gina Karr, PT, CMTPT, Director of Adult Services at WTRC
Megan Cordes, PT, DPT, CLT, ATRIC
Matt Wymore, OT, OTD, CHT, COMT
Misty Fine, OT, CHT
Dustin Blackington, OT
Chris Lambaren, PT, DPT
Whitney Brandon, CPO, LPO

COURSE LOCATION: Archer Building 210
MEETING HOURS: Lecture, Lab and Clinical Visits
Monday through Friday, 8am-12pm,
ASU Educational Clinic Friday afternoon 1-5 as assigned.

CLOCK HOURS:
Lecture: 48 Hours
Lab: 96 Hours
Clinical Visits: 48 Hours

COURSE OBJECTIVES: At the end of this course, the students will have demonstrated mastery of the subject by being able to:

1. Implement and internalize professional behaviors that are identified in the Professional Behavior Assessment Document, APTA’s Code of Ethics and Core Values. (7D 1, 2, 3, 4, 5, 6, 7, 8)

2. Practice in a manner consistent with the APTA’s Code of Ethics and Core Values. (7D4-5)

3. Examine a patient with musculoskeletal problems independently by obtaining a pertinent history from the patient and from other relevant sources, by performing relevant systems review, and by selecting and performing appropriate age-related tests and measures including but not limited to; ROM, muscle length, strength, power, endurance, sensation, reflexes, joint mobility, balance and skeletal integrity. (7D10, 11, 16, 17, 18, 19, 20.)

4. Synthesize musculoskeletal examination data to make clinical judgments regarding musculoskeletal conditions. (7D 20-24)

5. Determine the need for further examination or consultation by a physical therapist or for referral to another health care professional by screening for organ dysfunction and skeletal integrity. (7D 16, 19, 22, 33)

6. Determine a diagnosis and/or problem list that prioritizes and guides the management of the musculoskeletal condition. (7D 10, 11, 21, 22)

7. Determine patient or client prognoses based on evaluation of results of musculoskeletal examinations and medical and psychosocial information. (7D 10, 11, 20, 23)

8. Seek collaboration with patients, clients, family members, payers, other professionals, and individuals to determine a safe and effective plan of care that is ethical, realistic, and acceptable to the patient, client, family, and therapist. (7D 7, 12, 22, 24, 25, 28, 29, 30)

9. Weigh patient, client, and/or family wishes and needs when developing goals and plan of care. (7D8, 7D11)

10. Value contributions from others (patient, client, family, and/or healthcare providers) when developing goals and plan of care. (7D8, 7D11)

11. Differentiate support staff (PTAs & Techs) supervision responsibilities by a physical therapist in the state of Texas. (7D1, 7D3, 7D4, 7D5, 7D25, 7D29)

12. Display respect and sensitivity to cultural and individual differences. (7D8)

13. Establish goals and functional outcomes related to musculoskeletal problems that specify an appropriate time frame. (7D 1, 4, 5, 6, 21, 23, 31)

14. Establish an evidence-based plan of care that considers a well formulated problem list and goals. (7D 1, 4, 5, 6,
15. Adjust the plan of care in response to patient status and/or data collected from selected outcome measures. (7D1, 4, 5, 6, 28, 30, 31)

16. Develop documentation for physical therapy interventions to achieve goals that facilitate expected patient or client outcomes based on the examination and on the impairment, functional limitations, and disability. (7D 1, 4, 5, 6, 12, 21, 26, 27, 30, 32, 42)

17. Identify commonly applied CPT and ICD-10 codes in an outpatient musculoskeletal environment. (7D1, 7D3, &D4, 7D5, 7D32, 7D42)

18. Coordinate human and material resources and services to provide safe, quality, efficient, and cost-effective physical therapy services based on the patient’s or client’s goals. (7D 24, 25, 26, 28, 29, 33)

19. Critically evaluate published studies related to topics in musculoskeletal physical therapy and integrate available evidence to determine the best management of musculoskeletal conditions. (7D 9, 10, 11)

20. Demonstrate advocacy and leadership in the field of Physical Therapy on campus and in the community by marketing and participating in a learning clinic for the evaluation of volunteers with musculoskeletal pathology and/or impairments as well as offering ergonomic assessments. (7D13, 4, 5, 6, 28, 30, 31)

21. Develop documentation for physical therapy interventions to achieve goals that facilitate expected patient or client outcomes based on the examination and on the impairment, functional limitations, and disability. (7D 1, 4, 5, 6, 12, 21, 26, 27, 30, 32, 42)

22. Identify commonly applied CPT and ICD-10 codes in an outpatient musculoskeletal environment. (7D1, 7D3, &D4, 7D5, 7D32, 7D42)

23. Coordinate human and material resources and services to provide safe, quality, efficient, and cost-effective physical therapy services based on the patient’s or client’s goals. (7D 24, 25, 26, 28, 29, 33)

24. Critically evaluate published studies related to topics in musculoskeletal physical therapy and integrate available evidence to determine the best management of musculoskeletal conditions. (7D 9, 10, 11)

25. Manage care to community volunteers using the direct access model that includes examination and interventions. (7D35)

26. Name regulatory authorities to whom to report fraud and abuse of physical therapy services and payments (7D3)

27. Construct affective patient educational techniques to communicate home exercise program, body mechanics, ergonomics, etc. (7D12)

28. Determine the need for a balance assessment in a musculoskeletal population (7D19)

29. Administer balance tests and measures in a musculoskeletal population. (7D19)

30. Apply appropriate examination of the circulatory system as a basis for the patient’s sign and/or symptoms (7D19)

31. Define the signs and symptoms of adverse neural tension (7D19)

32. Duplicate neural tension tests and peripheral nerve provocation tests (7D19)

33. Demonstrate joint (vertebral & extremity) integrity and mobility analysis (7D19)

34. Identify musculoskeletal sources for gait deviations (7D19)

35. Employ pain assessment tools as part of a musculoskeletal examination (7D19)

36. Assess the need for assistive technology including orthotic devices in a musculoskeletal population. (7D27)

37. Construct hand/wrist splinting for joint protection. (7D27)

38. Design a motor function training program (balance, gait, motor control, movement retraining) as required to contribute to the plan of care. (7D27)

39. Identify musculoskeletal pathologies that are commonly found in a geriatric population.
TEACHING METHODS/ PHILOSOPHY:

Lecture, facilitated discussion, laboratory demonstration and practice, problem-solving sessions, self-instructional materials, reading and written assignments, small group work, clinical simulations/feedback sessions, clinical integrations, and practical examinations. Laboratory sessions require mandatory attendance.

There will be several open laboratory sessions. They are for your benefit to work on your skill techniques and procedures with faculty available for guidance. They are unstructured in terms of assignments, as you know which skills, techniques and procedures you need to work on. Come prepared to utilize the time and faculty resources wisely. If you are disruptive, in terms of didactic class or laboratory material review during these open lab sessions, then you will be barred from additional open laboratory use. No personal or ASU administrative/clinical business will be performed during these scheduled laboratory times.

ASU Department of Physical Therapy equipment sign out will be done following the procedures listed below:

1. Check with the primary faculty who traditionally use the equipment for initial approval
2. Check with the other faculty team members teaching the course to make sure they have not scheduled a use for the equipment while you desire to check out
3. See the PT Department Secretary to sign out and sign in the equipment, stating the date of sign out, the piece of equipment and the anticipated date of return
4. Inform the primary faculty member when the equipment is returned.

TENTATIVE SCHEDULE: See attached

REQUIRED TEXTBOOKS:

- Michael P Reimann, Orthopedic Clinical Examination, 1st ed.
- Donald A. Neumann, Kinesiology of the Musculoskeletal System Foundations for Rehabilitation, 2nd ed.
- Perry, J. and Burnfield, JM., Gait Analysis, Normal and Pathological Function, 2nd ed.

REQUIRED LAB CLOTHES:
Shorts, T-shirt, patient gown (provided), sneakers, sport bra or full coverage brassiere (not see through, preferably of dark color and that hooks in back). Clothing must be appropriate to expose the area being studied yet maintain modesty.

GRADING/EVALUATIVE PROCEDURES:

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<tr>
<th>Graded Activities</th>
<th>Mastery</th>
<th>Weight</th>
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<tbody>
<tr>
<td>1. Nine quizzes</td>
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<td>2. Three written examinations</td>
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<tr>
<td>#1 Upper Quarter Exam</td>
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<tr>
<td>#2 Lower Quarter Exam</td>
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<td>#3 MS Comprehensive</td>
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<tr>
<td>3. Graded Presentations (2)</td>
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<tr>
<td>4. 2 skill check-offs</td>
<td>80%</td>
<td>15%</td>
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<tr>
<td>5. Two comprehensive practical examinations (10% each) + documentation (4% final)</td>
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<tr>
<td>#1 Midterm</td>
<td>80%</td>
<td>10%</td>
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<tr>
<td>#2 Final</td>
<td>80%</td>
<td>14%</td>
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<tr>
<td>6. Discussion Board</td>
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<td>7. Clinic integration</td>
<td>80%</td>
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<tr>
<td>Total</td>
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• Written examinations may consist of multiple choice, true-false, matching, short answer, essay questions and patient case studies. The examinations will address knowledge, analysis and application of concepts. Each written examination may be cumulative including previously presented material in the curriculum. Students are expected to take all written examinations on the day they are scheduled. There will be no make-up written examinations.

• Criterion-referenced methods will be used for evaluation of check offs. In each check-off, if the student requires a retake and then they successfully pass, a score of 80% will be used to calculate the final grade. **Retake will be limited to once per check-off. Successfully achieving the Mastery on all three skill check-offs is required to pass the course.**

• Criterion-referenced methods will be used for evaluation during practical exams. **Retake of practical exam will be limited to once per course.** Once a retake is successful, regardless of the passing score obtained, a score of 80% will be used to calculate the final grade. Students with below Mastery (80%) performance on the first attempt of either practical exam will be subject to the program policy regarding failures as outlined in the Doctor of Physical Therapy (DPT) Program Student Handbook. Should mastery on a graded activity not be achieved after repeating the activity/assignment, a “Fail” will be assigned for the course.

• Clinic integration visits will be graded on objectives provided to the clinical instructor and student. These objectives will be based, in part, on generic abilities, clinical reasoning, and hands-on examination and treatment skills. **Mastery performance is required to pass the course.**

• The final course grade will be assigned based on the cumulative percentage of points earned throughout the course:

  A = 90-100  
  B = 80-89  
  C = 70-79  
  F = 69 or less

Students must score 80% or better in total (A or B grade) in order to meet mastery and receive credit for this course. Students who receive a failing course grade are subject to dismissal from the DPT program. Exceptions may be sought by petition of the Academic Committee of the Physical Therapy Program.

**ACADEMIC HONESTY:**

Academic honesty policies and procedures are reinforced throughout all aspects of the professional program. Faculty and students should familiarize themselves with the Angelo State University Code of Student Conduct found in the ASU Student Handbook available on the ASU website (http://www.angelo.edu/student-handbook/). This document, in addition to the information listed below, will be utilized to identify and address academic dishonesty within the program. The Department of Physical Therapy bases student conduct on the APTA Code of Ethics, Guide for Professional Conduct and Standards of Practice (http://www.apta.org/) (Appendix 8), in addition to Professional Behaviors. Specifically, the Department of Physical Therapy aligns itself with Angelo State University procedures under the Code of Conduct located at http://www.angelo.edu/student-handbook/code-of-student-conduct/, and the Community Policies located at http://www.angelo.edu/student-handbook/community-policies/. Both of these documents are located in the Angelo State University Student Handbook http://www.angelo.edu/student-handbook/ and fall under the guidance of the Office of Student Affairs and Enrollment Management. Please see the Dept. of Physical Therapy Student Handbook for further explanation.
ATTENDANCE/TARDINESS POLICY:

Attendance and promptness to classes, meetings, and future work obligations are considered professional behaviors. As this department is preparing potential professionals in the area of physical therapy, it is part of our expectation that student presence and timeliness will be held in highest regard. Tardiness is a disruption to the instructor and fellow students. A student is considered tardy if he/she arrives for class after the instructor has begun class activities. Please see the following related to implications from excessive lateness or absences without a reasonable excuse:

a. First offense - verbal warning
b. Second offense - second verbal warning, initiation of Disciplinary Tracking Form.
c. Third offense - 1% off final course grade
d. 1% off final course grade for each additional unexcused tardy or absence

Per the student handbook, **2 or more occurrences combined or mixed will result in the initiation of a Disciplinary Tracking Form.**

If a student has an unexcused absence during integrations it may lead to the removal of that student from that clinical environment. It is the responsibility of the student to contact the clinical site and give notice if they are ill, or have transportation issues.

If the student is unable to attend class, it is the student’s responsibility to either call the PT office at 942-2545 or the office of the professor of the class directly. This notification should be made prior to commencement of said class.

Continued issues with tardiness/attendance across all courses will result in disciplinary probation and will be referred to the PT faculty for consideration of options, including program dismissal.

The PT faculty is not oblivious to doctor’s appointments and other potential hazards and emergencies in daily life. Simply taking responsibility to notify the office or the professor if issues arise is considered professional behavior. Please do not rely on a classmate or other form of notification, as these have proven unreliable in years past.

**ATTENDANCE AT ALL SCHEDULED EXAMINATIONS IS MANDATORY.** Any unexcused absence from an examination will automatically result in a score of ZERO for that examination. Any student absent from examinations due to illness or injury must have a written justification from their physician. **Absence from an examination for any other reason must be excused before the time of the scheduled examination** or brought about by a very serious circumstance. For excused absences only, make-up examinations must be taken no later than one week after the student returns to class. Extended absences must be approved by the Program Director of Physical Therapy.

**ACCIDENT/INCIDENT REPORTING:**

Any student involved in a safety incident on ASU property or at an ASU related educational activity (e.g. accidental needle stick, fall, etc.) must immediately notify the course coordinator, clinical instructor and/or department chair. If the incident occurs after hours, all incidents must be reported to the University Police at 942-2071. A student Accident/Incident Report must be completed no matter how insignificant the incident may appear. [See Appendix 15 of the Student Handbook for the Form.

**STUDENTS WITH DISABILITIES:**

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston
When a student states he or she could meet the program’s technical standards with accommodation(s), the Office of Student Affairs will confirm that the stated condition qualifies as a disability under applicable laws. If the condition qualifies as a disability, the University will determine if it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review of whether or not the accommodation requested is reasonable, taking into account whether or not the accommodation would jeopardize clinician/patient safety or the educational process of the student or the institution, including all course work, clinical educational experiences and internships deemed essential to graduation. Students are required to read and sign the DPT program’s technical standards (DPT Program Student Handbook Appendix I) form and to update their responses on this form if their health status changes.

A student who requires accommodation to meet the technical standards must obtain verification by the Office of Student Affairs that proper reasonable accommodation is available for the student to meet the standard. The program will not provide accommodation without such written verification.

RELIGIOUS HOLY DAYS
Faculty will provide accommodations for student absences for observance of a religious holy day(s) (OP 10.19). Students should make every effort to inform a faculty member at the beginning of the semester regarding these absences.

PROFESSIONAL BEHAVIORS

Professional attire including nametag is expected when guest speakers are scheduled unless other instructions are given. Appropriate clinic attire is expected during clinical integration. Maintaining a safe and clean learning environment is the responsibility of students and faculty. Please note that food and open drinks will not be allowed in the lab area. Gum-chewing is not permitted in lab, during on-campus patient/client experiences or during any off-campus activities. Cell phones are to be turned off upon entering the classroom. Personal e-mailing and internet surfing are not allowed during lecture and lab activity. Students with two violations will be penalized 1% on their final course grade. Thereafter, 1% will be deducted for each subsequent violation and will be excluded from the class activity. Continual problems with professional behaviors will be directed to the student's academic advisor and, if necessary to the Academic Committee for action.