**PT 7353: Musculoskeletal Examination and Management I (3 Credits)**

**COURSE DESCRIPTION:**

This course provides the DPT entry-level physical therapist with the knowledge and skill sets to effectively manage patients/clients with musculoskeletal dysfunctions. 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.

**COURSE COORDINATOR:** Kendra Nicks, PT, ScD, COMT
Associate Clinical Professor
Office: 225 Vincent Building
(w) 325-942-2250
Office Hours: By appointment
Email: kendra.nicks@angelo.edu

**COURSE LECTURER:**

James Villers, PT, DPT, FAAOMPT
Associate Clinical Professor, Office: 269 Vincent Building
(w) 325-942-2547
Office Hours: By appointment
Email: james.villers@angelo.edu

Teresa Huckaby, PT, DPT
Assistant Clinical Professor
Office: 232 Vincent Building
(w) 325-942-2394
Office Hours: By appointment
Email: teresa.huckaby@angelo.edu

Han-Hung (Floyd) Huang, PT, PhD
Assistant Professor
Office: 228 Vincent Building
(w) 325-942-2627
Office Hours: By appointment
Email: floyd.huang@angelo.edu

**GUEST LECTURERS:**

Gina Karr, PT, Director of Adult Services at WTRC
MEETING HOURS: Monday 8am-12pm; 1pm-5pm  
Wednesday 8am-12pm; 1pm-5pm  
Friday 8am-12pm

COURSE LOCATION: Center for Human Performance (CHP) 143

CLOCK HOURS: Lecture: 16 Hours  
Lab: 96 Hours

COURSE PREREQUISITES: Successful completion of previous DPT coursework

LEARNING OUTCOMES:

At the completion of this course, the student should be able to perform each of the following in a safe, effective and culturally competent manner:

1. Discuss the theoretical basis for the application of physical agents and manual therapy techniques on patients / clients with common musculoskeletal conditions. Emphasis will be given to common musculoskeletal injuries and conditions, including post-operative rehab. (7D5, 7D10, 7D16, 7D17, 7D18)

2. Describe indications and contraindications for the application of physical agents and manual therapy, and therapeutic exercise techniques. (7D8, 7D10, 7D11, 7D16, 7D17, 7D18, 7D19)

3. Select the appropriate physical agents and manual therapy and therapeutic exercise techniques with emphasis on safety, effectiveness, and evidence-based practice. (7D1, 7D4, 7D5, 7D8, 7D10, 7D11, 7D27, 7D28)

4. Demonstrate the proper application of physical agents and manual therapy and therapeutic exercise with regard to patient problems, patient preparation, safety, indications/contraindications, treatment parameters, and patient response. (7D27)

5. Assess response to treatments with physical agents and manual therapy techniques, and recognize adverse patient responses to therapeutic interventions. (7D1, 7D4, 7D5, 7D8, 7D11, 7D16, 7D19, 7D27, 7D28, 7D30, 7D31, 7D37)

6. Choose the most appropriate musculoskeletal imaging procedure according to patient presentation and current best evidence of diagnosis. (7D10, 7D16, 7D19, 7D20)

7. Interpret the relevance of abnormal image findings to clinical decision making. (7D16, 7D17, 7D18, 7D20)

8. Identify the appearance of normal musculoskeletal anatomy and common pathology on radiographs. (7D16, 7D17, 7D18, 7D20)
9. Independently demonstrate an examination of a patient with musculoskeletal problems 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. (7D16, 7D17, 7D18, 7D19, 7D40)

10. Differentiate the need for further examination or consultation by a physical therapist or for referral to another health care professional. (7D11, 7D16, 7D20)

11. Formulate a diagnosis and/or problem list that prioritizes and guides the management of the musculoskeletal condition. (7D20, 7D21, 7D22)

12. Select patient or client prognoses based on evaluation of results of musculoskeletal examinations and medical and psychosocial information. (7D23, 7D26)

13. Create goals and functional outcomes related to musculoskeletal problems that specify an appropriate time frame. (7D23)

14. Design an evidence-based plan of care that considers a well formulated problem list, goals, and discharge plans. (7D24, 7D25, 7D26)

15. Revise the plan of care in response to patient status and/or data collected from selected outcome measures. (7D26, 7D28, 7D30)

16. Supply and document appropriate direct 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. (7D12, 7D27, 7D28, 7D30, 7D31, 7D32)

17. Display appropriate professional behaviors as identified by the Professional Behavioral Assessment in the classroom which will carry over to the clinic. (7D1, 7D2, 7D3, 7D4, 7D5, 7D6, 7D7, 7D8)

18. Value individual and cultural differences in patient care. (7D8)

19. Integrate available evidence to determine the best management of musculoskeletal conditions. (7D10, 7D11)

INSTRUCTIONAL METHODS/LEARNING ACTIVITIES:

Methods include but not limited to lecture, facilitated discussion, laboratory demonstration and practice, problem-solving sessions, self-instructional materials, reading assignments, small group work, clinical simulations/feedback sessions, and practical examinations. Blackboard will be used to communicate between instructors and students. Laboratory sessions require mandatory attendance.

There might be some 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 Office Coordinator 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 Schedule

TEXTBOOKS:

Required:
- Cameron M. Physical Agents in Rehabilitation: From Research to Practice. 4th ed.
- Michael P. Reiman, Orthopedic Clinical Examination. 1st ed.

Recommended:

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.

COURSE EVALUATION:

<table>
<thead>
<tr>
<th>Graded activities</th>
<th>Mastery</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mid-term written exam</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>2. Mid-term skills check-off</td>
<td>80%</td>
<td>15%</td>
</tr>
<tr>
<td>3. Anatomy quizzes</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>4. Final written exam</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>5. Final skills check-off</td>
<td>80%</td>
<td>15%</td>
</tr>
<tr>
<td>6. Discussion Boards</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

- 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 retake written examinations.
• There will be two skill check-offs. Criterion-referenced methods will be used for evaluation. Retakes will be limited to one practical exam 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.

• 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.

THE ANGELO STATE UNIVERSITY HONOR CODE:

Angelo State University expects it students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook. Our students believe that ASU students should maintain complete honesty and integrity in their academic pursuits.

The Honor Code at ASU describes expected academic behavior of both faculty and students, and it consists of an agreement between the student and the academic community to foster academic integrity, to value student educational goals, and to maintain the positive academic reputation of ASU. Angelo State University expects all students and faculty to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experiences both in and out of the classroom.

ASU students and faculty will not participate or condone

- Plagiarism
- Cheating
- Fabrication of data
- Misrepresentation of information
- Misuse of library materials
- Misuse of technology
- Conspiring with others to commit these acts
ASU students are responsible for understanding the Honor Code as well as the individual academic requirements and stipulations for each course. This includes carefully reading the *Angelo State University Student Handbook* and reading the syllabus of each course. Students should ask for clarification of any ambiguous aspect of the syllabus.

To facilitate this code of ethical conduct, ASU has an Academic Integrity Committee, a committee composed of both students and faculty, which has the responsibility of reviewing cases of suspected academic dishonesty which may be brought to it. The committee’s membership of students and faculty reinforces ASU’s commitment to academic integrity in and out of the classroom.

**STUDENTS WITH DISABILITIES**

*University Statement on 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 Act of 2008 (ADAAA), and subsequent legislation.

Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by emailing ADA@angelo.edu, or by contacting:

Mrs. Dallas Swafford  
Director of Student Disability Services Office of Student Affairs  
University Center, Suite 112 325-942-2047 Office  
325-942-2211 FAX  
Dallas.Swafford@angelo.edu

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.
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. Accommodations that affect the student’s clinical education are subject to approval by the clinical site.

ATTENDANCE/TARDINESS

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.