COURSE DESCRIPTION: The signs and symptoms of pathology will be related to basic functions of the various organ systems. Focus is on the mechanisms underlying disease and their management as a basis for therapeutic program planning in physical therapy.

COURSE INSTRUCTORS: Carolyn Mason, PT, PhD  
Professor  
Office: Vincent 270  
Office phone: 325-942-2794  
Email Address: carolyn.mason@angelo.edu  
Office Hours: By appointment

Shelly D. Weise, PT, EdD  
Professor  
Office: Vincent 266  
Office phone: 325-486-6474  
Email Address: shelly.weise@angelo.edu  
Office Hours: By appointment

COURSE LOCATION: Science Building III, Room 213

MEETING HOURS: Monday and Wednesday 10:30 am – 12:00 pm Lecture

CLOCK HOURS: 45 Lecture Hours

PREREQUISITES: Successful completion of previous DPT coursework

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

1. Discuss the behavioral, social and environmental factors contributing to disease and dysfunction. 7A*
2. Discuss the biopsychosocial-spiritual concepts related to care. 7A
3. Describe the impact of stress upon the physiologic function of the body. 7A
4. Describe the primary pharmacokinetic factors involved in drug therapy including administration, distribution, interaction and elimination. 7A
5. Interpret a dose response curve for drugs determining the threshold dose and the ceiling effect. 7A
6. Describe the metabolic role of the primary organs and tissues in the body. 7C
7. Discuss the factors such as age, disease, drugs, genetics, nutrition, chemicals, body composition, and gender that alter the normal pharmacokinetics. 7A
8. Explain how altered pharmacokinetics may lead to an increase or decrease in drug effects and how these effects may be recognized in the patient/client receiving physical therapy. 7A
9. Identify the conditions reflecting critical (life-threatening) drug interactions in patients/clients receiving physical therapy. 7A
10. Define the signs and symptoms that distinguish/differentiate the common nonmusculoskeletal/nonneuromuscular/noncardiopulmonary diagnoses in patients/client seen by physical therapists. 7A
11. Describe the presenting signs and symptoms and natural course of the primary system...
disorders/diseases managed by physical therapists. 7A
12. Explain the diagnostic techniques including laboratory tests used to differentiate various diagnoses. 7A
13. Describe the ‘red’ flags in the laboratory data indicating the need for referral/consultation. 7A
14. Describe the ‘red’ flags in the laboratory data that impact physical therapy interventions. 7A
15. Discuss the epidemiological factors for common conditions/disorders in patients treated in the acute care practice of physical therapists.
16. Describe the cellular response to injury. 7A
17. Describe the cardinal signs and symptoms of inflammation. 7A
18. Explain the physiological bases for common indicators of inflammation. 7A
19. Describe the relationship between the physiological basis of inflammation and the pharmacologic management to minimize inflammation. 7A
20. Describe the stages healing comparing tissue repair versus tissue regeneration. 7C Discuss the factors that impact healing. 7A
21. Compare and contrast the effects of comorbidities and drug interactions on tissue healing. 7C
22. Describe the pathology of selected genetic, nutritional, neoplastic, and infectious diseases. 7A
23. Describe the concepts of genetic characteristics or traits and their relationships to genetic risk and disease predisposition. 7A
24. Describe the pathologic clinical signs and symptoms of the selected genetic, nutritional, neoplastic, and infectious disease. 7C
25. Describe the pathology of common disorders in the listed systems: 7C
   a. Immune
   b. Lymphatic
   c. Endocrine and metabolic
   d. Gastrointestinal
   e. Integumentary
   f. Renal/urologic
   g. Hepatic, pancreatic, and biliary
26. Analyze the impact of pathological processes of common system disorders in terms of function. 7C
27. Analyze the impact of pathological processes of common disorders on the person’s ability to participate in physical therapy. 7C
28. Discuss, in general terms, the pharmacodynamics of drugs prescribed for common disorders. 7A
29. Apply knowledge to cases.

*CAPTE Standards

TEACHING METHODS/PHILOSOPHY: Lecture, class handouts, group presentations, and discussion of directed case studies, and reading assignments. Audiovisuals, and computer-assisted instruction as appropriate will be included in learning activities. Blackboard will be used to disseminate information and test administration. Attendance and participation in class activities are essential to the learning process.

TENTATIVE SCHEDULE: See attached.

REQUIRED TEXTS:

GRADING/EVALUATIVE PROCEDURES:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Two written exams</td>
<td>30% each</td>
<td>A=100-90</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
<td>B=80-89</td>
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<tr>
<td>Total</td>
<td>100%</td>
<td>C=70-79</td>
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<td></td>
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<td>F&lt;70</td>
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</table>
All written exams in PT 7320 are comprehensive and will be computer administered. The exams will consist of multiple choice questions. Each exam will be given during class time in a computer lab. Students are expected to take the exams at the scheduled times. Make up exams are at the discretion of the instructors. Mastery on each exam is not required but the student must achieve a minimal competency level of 80% by the end of the semester. No retakes of exams will be given.

Failure to achieve a minimal competency level of 80% after the completion of the first two written exams exam will result in the initiation of an Academic Probation Tracking Form and related actions including notification of your advisor and of the Academic Committee. Failure to achieve a minimal competency level of 80% by the end of the semester will result in Academic Probation and the forwarding of the student records to the Academic Committee for consideration of options including possible Program dismissal.

HONOR CODE STATEMENT

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
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.

**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
- e.

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.
### Tentative Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Faculty</th>
<th>Readings*</th>
</tr>
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<tbody>
<tr>
<td><strong>Week 1</strong></td>
<td></td>
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<tr>
<td>August 28</td>
<td>Introduction to Course and Behavioral, Social and Environmental Factors Contributing to Disease and Dysfunction.</td>
<td>Mason</td>
<td>Goodman and Fuller, Chapter 1 and 2</td>
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<tr>
<td>10:30 am - 12:00 pm</td>
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<tr>
<td>August 30</td>
<td>Environmental and Occupational Medicine</td>
<td>Mason</td>
<td>G&amp;F, Chapter 4</td>
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<td>10:30 am - 12:00 pm</td>
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<tr>
<td><strong>Week 2</strong></td>
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<tr>
<td>Sept. 6</td>
<td>Labor Day Holiday</td>
<td>Mason</td>
<td></td>
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<tr>
<td>10:30 am - 12:00 pm</td>
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<tr>
<td>Sept. 1</td>
<td>Problems affecting Multiple Systems</td>
<td>Mason</td>
<td>G&amp;F, Chapter 5</td>
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<td>10:30 am - 12:00 pm</td>
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<tr>
<td><strong>Week 3</strong></td>
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<tr>
<td>Sept. 11</td>
<td>Injury, Inflammation and Healing</td>
<td>Mason</td>
<td>G&amp;F, Chapter 6</td>
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<tr>
<td>10:30 am - 12:00 pm</td>
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<tr>
<td>Sept. 13</td>
<td>Immune System</td>
<td>Mason</td>
<td>G&amp;F, Chapter 7 Bruyere, Cases 75 and 76</td>
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<td>10:30 am - 12:00 pm</td>
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<td><strong>Week 4</strong></td>
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<tr>
<td>Sept. 18</td>
<td>Laboratory Tests and Values, pt. 1</td>
<td>Weise</td>
<td>G&amp;F, Chapter 40</td>
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<tr>
<td>10:30 am - 12:00 pm</td>
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<tr>
<td>Sept. 20</td>
<td>Laboratory Tests and Values, pt. 2</td>
<td>Weise</td>
<td>G&amp;F, Chapter 40</td>
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<td>10:30 am - 12:00 pm</td>
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<td><strong>Week 5</strong></td>
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<tr>
<td>Sept. 25</td>
<td>Pharmacology – Pharmacokinetics I</td>
<td>Mason</td>
<td>Ciccone, Chapter 1 and 2</td>
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<td>10:30 am - 12:00 pm</td>
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<tr>
<td>Sept. 27</td>
<td>Pharmacology – Pharmacokinetics II and Drug Receptors</td>
<td>Mason</td>
<td>Ciccone, Chapter 3 and 4</td>
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<td>10:30 am - 12:00 pm</td>
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<td><strong>Week 6</strong></td>
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<tr>
<td>Oct. 2</td>
<td>Pharmacology for inflammation</td>
<td>Mason</td>
<td>Ciccone, Chapter 15</td>
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<td>10:30 am - 12:00 pm</td>
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<tr>
<td>October 4</td>
<td><strong>Exam 1</strong> through 10/2 in Testing Center</td>
<td>Mason</td>
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<td>10:30 am - 12:00 pm</td>
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<td><strong>Week 7</strong></td>
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<tr>
<td>Oct. 9</td>
<td>Infectious Diseases, pt. 1</td>
<td>Mason</td>
<td>G&amp;F, Chapter 8</td>
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<td>10:30 am - 12:00 pm</td>
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<tr>
<td>Week 8</td>
<td>Oct. 16 10:30 am - 12:00 pm</td>
<td>Oncology</td>
<td>Mason</td>
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<tr>
<td>Oct. 18 10:30 am - 12:00 pm</td>
<td>Oncology Case</td>
<td>Mason</td>
<td>Bruyere</td>
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**Week 9**
- Oct. 23 10:30 am - 12:00 pm: Pharmacology – Antibiotics and Antivirals
  - Mason
  - Ciccone, Chapters 33 and 34.
- Oct. 25 10:30 am - 12:00 pm: Integumentary System
  - Mason
  - G&F, Chapter 10

**Week 10**
- Oct. 30 10:30 am - 12:00 pm: Cases
  - Mason
  - Bruyere, Cases 82, 83, and/or 84
- Nov. 1 10:30 am - 12:00 pm: Endocrine and Metabolic Systems
  - Mason
  - G&F, Chapter 11

**Week 11**
- Nov. 6 10:30 am - 12:00 pm: Endocrine and Metabolic Systems
  - Mason
  - Bruyere, Cases 53, 54 and others
- Nov. 8 10:30 am - 12:00 pm: Gastrointestinal System
  - Mason
  - G&F, Chapter 16

**Week 12**
- Nov. 13 10:30 am - 12:00 pm: Exam 2 through 11/07 in Testing Center
- Nov. 15 10:30 am - 12:00 pm: GI Cases
  - Mason
  - Bruyere, Cases 17-29 selective

**Week 13**
- Nov. 20 10:30 am - 12:00 pm: Hepatic, Pancreatic and Biliary
  - Mason
  - G&F, Chapter 17
- Nov. 21: ASU Holiday

**Week 14**
- Nov. 27 10:30 am - 12:00 pm: Hepatic, Pancreatic and Biliary Cases
  - Mason
  - Bruyere, Cases 18, 23, 29
- Nov. 29 10:30 am - 12:00 pm: Renal and Urologic Systems
  - Mason
  - G&F, Chapter 18

**Week 15**
- Dec. 4 10:30 am - 12:00 pm: Variety of cases!
  - Mason
  - To Be Announced
- Dec. 6: Mason
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 am - 12:00 pm</td>
<td>More cases and review!</td>
</tr>
<tr>
<td><strong>Week 16</strong></td>
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<tr>
<td>Dec. 13 (Wednesday)</td>
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</tr>
<tr>
<td>10:30 am - 12:00 pm</td>
<td>Final Exam in Testing Center</td>
</tr>
</tbody>
</table>

*Additional readings may be assigned. Check your objective sheets for actual cases to be covered.*