**Auburn University School of Kinesiology**

**Doctor of Physical Therapy Program**

**Course Number and Title:** KNPT 9030: Physical Therapy Biomechanics II

**Lecture Meetings:** Mondays from 10:00am – 12:00pm

**Lecture Meetings Location:** STACT 231

**Laboratory Meetings:** Mondays from 1:00pm – 3:00pm

**Laboratory Meetings Location:** STACT 257

**Course Coordinator/Co-Instructor/Co-Lab Director:** Shana Carter, PT, DPT, EdD

ABPTS Board-Certified Specialist in Orthopaedic Physical Therapy

**Office Number and Building:** KINE 232

**Office Telephone Number:** (334)844-1712

**Email Address:** [slc0114@auburn.edu](mailto:slc0114@auburn.edu)

**Virtual Office Hours** Student conferences available by appointment. In-person or virtual meetings through Zoom are available. Please email me or send a message through Canvas to request a meeting.

**Statement on Email/Canvas Message Response:** I will typically respond to emails/Canvas messages within a 24-hour period. Emails/messages sent after 5:00pm will be addressed the next business day as able. Emails/messages sent on Friday, or the weekend will be addressed the following Monday as able. If I have not responded within a 48-hour business period, please email/message again, or call to discuss.

**Co-Instructor/Co-Lab Director:** Ryan M. Babl, PT, DPT, PhD

ABPTS Board-Certified Specialist in Orthopaedic Physical Therapy

NSCA Certified Strength and Conditioning Specialist

**Office Number and Building:** KINE286

**Office Telephone Number:** (334)844-1619

**Email Address:** [rmb0119@aburn.edu](mailto:rmb0119@aburn.edu)

**Virtual Office Hours**: Student conferences available by appointment. In-person or virtual meetings through Zoom are available. Please email me or send a message through Canvas to request a meeting.

**Statement on Email/Canvas Message Response:** I will typically respond to emails/Canvas messages within a 24-hour period. Emails/messages sent after 5:00pm will be addressed the next business day as able. Emails/messages sent on Friday, or the weekend will be addressed the following Monday as able. If I have not responded within a 48-hour business period, please email/message again, or call to discuss.

**Course Description:**

Structures of the musculoskeletal system and individual functional regions. Forces sustained in normal and pathological conditions. Kinesiology emphasizes the application of mechanical and physiological principles to the human movement system. Mechanical properties of biological tissue, kinematics, kinetics, muscle actions, and joint structure and function are examined. Students will perform detailed analyses of normal and abnormal movement and alignment of the spine and extremities.

**Credit Hours:** 3

**Lecture Contact Hours:** 2

**Laboratory Contact Hours:** 2

**Course Prerequisite:** Admission into the Auburn University Physical Therapy Program and successful completion of prior didactic courses.

**Required Texts:**

* Neumann DA. *Kinesiology of the Musculoskeletal System*. 4th ed. Elsevier; 2024.

**Recommended Texts:**

* Hasen JT. *Netter’s Clinical Anatomy*. 5th ed. Elsevier; 2022.
* Netter FH. *Netter Atlas of Human Anatomy: A Systems Approach*. 8th ed. Elsevier; 2023.

**Additional Course Materials:**

Posted through Canvas Learning Management System as needed or provided by the instructor.

**Description of Teaching Methods and Learning Experiences:**

The instructional approach in this course is designed to engage students through a blend of teaching methods, ensuring a comprehensive understanding of the subject matter and the development of essential foundational physical therapy knowledge and skills. This course aims to introduce and build upon fundamental knowledge, developing key skills necessary for effective physical therapist practice across a diverse range of clinical settings and specialties. A computer that meets the minimal standards outlined in the student handbook is required. Internet access is also required. Canvas will be used to distribute information, conduct live video conferences/classes as needed, discussion boards posting, distribute and receive assignments, take exams/quizzes, and distribute grades. Communication about the class will be done through email, Canvas, or in person. Students are expected to check their AU emails and Canvas regularly for updates or information about the class.

**Note:** Canvas is a means of quickly providing grades in the course. It is the student’s responsibility to inform the instructor(s) of record if there are any errors or discrepancies in grades provided through Canvas.

**Posting of Course Materials on Canvas:**

The instructor(s) will make every effort to post course materials on Canvas before the scheduled lecture. However, this is not always possible, and students should be prepared to take written notes in class. Any course materials that are not posted prior to class will be posted within 24 hours following the completion of the lecture or lab.

The following teaching methods and learning experiences will be used:

1. **Lectures and Corresponding Learning Materials:** The course features traditional lectures, supplemented by detailed lecture notes, assigned readings, and curated video content available through a combination of textbooks and the Canvas learning management system. These resources provide students with a foundational knowledge and a clear framework for each topic.
2. **Laboratory Instruction and Demonstration**: Hands-on learning is a key component of this course. In the laboratory setting, students observe demonstrations by faculty, followed by opportunities to practice and refine techniques. Concepts introduced in lectures will be further explored through critical thinking and application questions and exercises. Whenever possible, the lab sessions are designed to simulate clinical environments allowing students to develop and perfect their skills in a controlled, supportive setting. Demonstrations and hands on learning related to basic principles of anatomy, biomechanics, and physiology will be used to foster learning and skill acquisition needed for later coursework.
3. **Student Interactions**: To foster deeper understanding, the course includes guided classroom and small group discussions whenever possible. Much of the lab work will also be structured around student interactions. These interactions allow students to engage with the material actively, exchange ideas with peers, and apply theoretical concepts to real-world scenarios. Lab assignments are intended to initiate collaboration, discussions, and hands-on practice to enhance critical thinking, problem-solving skills, performance, and teamwork. Peer learning outside of the classroom is highly encouraged to help facilitate hands-on-skills practice and reinforce concepts and critical thinking skills. Learning in the discussion format is a cooperative effort and everyone is expected to offer questions, ideas, and criticisms of the concepts being discussed.
4. **Lab Assignments:** As part of the lab experience, students will complete a series of structured lab assignments with questions. These assignments are designed to reinforce the material covered in lectures and labs, encouraging students to apply their knowledge in practical scenarios and further engage with the material.
5. **Skills Development with Feedback:** Students will engage in structured and unstructured skills development activities, where they will receive targeted feedback from faculty. This iterative process of practice and feedback ensures that students achieve mastery of critical physical therapy techniques.
6. **Independent Study:** To reinforce learning and encourage self-directed exploration, students are expected to engage in independent study. This includes reviewing course materials, completing assigned readings, and practicing techniques outside of scheduled class times. Although students will have an opportunity to practice the skills taught during the laboratory, additional time outside of the classroom will be necessary for students to gain entry-level proficiency. Students may be called upon to demonstrate concepts or skills previously covered in a class or laboratory session.
7. **Continuous Informal Assessment:** Throughout the lab activities, faculty will conduct ongoing informal assessments of students' mastery of techniques. Constructive feedback will be provided both individually and as a group, allowing students to continuously improve their skills and confidence.

**Program Goals, Expected Student Outcomes, and Course Objectives**:

Upon successful completion of this course, the student will be able to:

(Abbreviations: S = CAPTE standard)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Course Student Learning Objectives (SLOs)** | **CAPTE 2016 Standards** | **CAPTE**  **2024 Standards** | **Activity for Assessment** |
| 1 | **Explain** the importance of kinesiology and biomechanics to physical therapy research and practice. | S-7D9 | S-7C1 | Lab Assignments, Case Study Presentations |
| 2 | **Describe** the physiology and material properties of biological tissues. | S-7D10 | S-7C1 | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 3 | **Explain** how a variety of factors including loading, immobilization, aging, and pathology affect the physiology and material properties of biological tissue. | S-7D10 | S-7C1 | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 4 | **Explain** how injuries to the musculoskeletal system disrupt the neuro-biomechanical system. | S-7D10 | S-7C1 | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 5 | **Analyze** the effects of different types of external loads on muscle and joint forces, and the implications of such effects for injury and rehabilitation. | S-7D10 | S-7C1 | Quizzes, Exams, Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 6 | **Explain** the neural, mechanical and structural factors affecting muscle force generation. | S-7D19o | S-7D1Ccd | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 7 | **Describe** the osteokinematics, arthrokinematics, and kinetics (including muscle activity) during: 1) simple movements of the spine and extremities, 2) select functional tasks and 3) different phases of the gait cycle. | S-7D19b, i, m, o, r | S-7D1Ccd | Quizzes, Exams, Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 8 | **Compare and contrast** the structural and functional biomechanical factors that may contribute to postural deviations, and the effects of such deviations on biological tissues and joint biomechanics. | S-7D19 | S-7D1Ccd | Quizzes, Exams, Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 9 | **Analyze** movement of the spine and extremities during clinical test movements and functional tasks. | S-7D19m | S-7D1Ccd | Quizzes, Exams, Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 10 | **Explain** how common disruptions in joint and muscle function can result in tissue overload and pathology near and distant to the dysfunction. | S-7D19m | S-7D1Ccd | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 11 | **Explain** how physical therapy intervention can affect joint, neuro and muscle function fostering resolution of near and distant tissue overload and pathology. | S-7D27 | S-7D10CD | Lab Assignments, Case Study Presentations, Lab Practical Exams |
| 12 | Based on specific assigned readings, **discuss** how researchers are studying kinesiology concepts and how the research applies to the clinical practice of physical therapy. | S-7D9 | S-7C1 | Case Study Presentations |
| 13 | **Critically analyze** peer-reviewed literature on the biomechanical factors that are related to musculoskeletal pain problems. | S-7D9 | S-7C1 | Case Study Presentations |

**Course Schedule:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week 1 (August 18 - 22): Lumbar Spine** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **Course Student Learning Objectives (SLO)** | **Lecturer(s)/Lab Director(s)** |
| **August 18**  **(MON)**  **10am-12pm** | Lecture | Lumbar Spine | Chapter 9 of Neuman’s Kinesiology of the MSK System: p 320-361 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **August 18**  **(MON)**  **1-3pm** | Lab 1  **LAB ASSIGNMENT 1** | Lumbar Spine Lab Part I |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Week 2 (August 25 - 29): Lumbar Spine** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **August 25**  **(MON)**  **10am-12pm** | Lecture | Lumbar Spine | Chapter 09 of Neuman’s Kinesiology of the MSK System: p 320-361 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **August 25**  **(MON)**  **1-3pm** | Lab 2  **LAB ASSIGNMENT 2** | Lumbar Spine Lab Part II |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **August 29**  **(FRI)**  **By 5pm** | **QUIZ 1** | Quiz: Lumbar Spine |  |  |  |
| **Week 3 (September 1 - 5): Labor Day Holiday** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Sept. 1**  **(MON)**  **10am-12pm** | **No Class – Labor Day Holiday** |  |  |  |  |
| **Sept. 1**  **(MON)**  **1-3pm** | **No Lab – Labor Day Holiday** |  |  |  |  |
| **Sept. 5**  **(FRI)**  **By 9pm** | **No Quiz – Labor Day Holiday** |  |  |  |  |
| **Week 4 (September 8 - 12): Thoracic Spine** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Sept. 8**  **(MON)**  **10-12pm** | Lecture | Thoracic Spine | Chapter 9 of Neuman’s Kinesiology of the MSK System: p 320-361 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **Sept. 8**  **(MON)**  **1-3pm** | Lab 3  **LAB ASSIGNMENT 3** | Thoracic Spine Lab |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Sept. 12**  **(FRI)**  **By 5pm** | **QUIZ 2** | Quiz: Thoracic Spine |  |  |  |
| **Week 5 (September 15 - 19): Exam 1 / Thorax, Rib Cage, Diaphragm, & Breathing: Kinesiology of Ventilation** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Sept. 15**  **(MON)**  **10am-12pm** | **EXAM 1** | Weeks 1-4 |  |  |  |
| **Sept. 15**  **(MON)**  **1-3pm** | Lecture | Kinesiology of Ventilation | Chapter 11 of Neuman’s Kinesiology of the MSK System: p 467-476 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **Sept. 19**  **(FRI)**  **By 5pm** | **QUIZ 3** | Quiz: Kinesiology of Ventilation |  |  |  |
| **Week 6 (September 22 - 26): Cervical Spine** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Sept. 22**  **(MON)**  **10am-12pm** | Lecture | Cervical Spine | Chapter 9 of Neuman’s Kinesiology of the MSK System: p 320-361 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **Sept. 22**  **(MON)**  **1-3pm** | Lab 4  **LAB ASSIGNMENT 4** | Cervical Spine Lab Part 1 |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Week 7 (September 29 – October 3): Cervical Spine** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Sept. 22**  **(MON)**  **10am-12pm** | Lecture | Cervical Spine | Chapter 9 of Neuman’s Kinesiology of the MSK System: p 320-361 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **Sept. 22**  **(MON)**  **1-3pm** | Lab 5  **LAB ASSIGNMENT 5** | Cervical Spine Lab Part II |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Sept. 26**  **(FRI)**  **By 5pm** | **QUIZ 4** | Quiz: Cervical Spine |  |  |  |
| **Week 8 (October 6 - 10): TMJ & Muscles of Mastication** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **October 6**  **(MON)**  **10am-12pm** | Lecture | TMJ & Muscles of Mastication | Chapter 11 of Neuman’s Kinesiology of the MSK System: p 437-466, 473 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER |
| **October 6**  **(MON)**  **1-3pm** | **LAB PRACTICAL 1** | Lumbar, Thoracic, & Cervical Spine Practical |  | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 |  |
| **October 10**  **(FRI)**  **By 5pm** | **QUIZ 5** | Quiz: TMJ & Muscles of Mastication |  |  |  |
| **Week 9 (October 13 - 17): Exam 2 / Shoulder Joint** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **October 13**  **(MON)**  **10am-12pm** | **EXAM 2** | Weeks 5-8 |  |  |  |
| **October 13**  **(MON)**  **1-3pm** | Lecture | Shoulder Joint | Chapter 5 of Neuman’s Kinesiology of the MSK System: p 125-170 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **Week 10 (October 20 - 24): Shoulder Joint** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **October 20**  **(MON)**  **10am-12pm** | Lecture | Shoulder Joint | Chapter 5 of Neuman’s Kinesiology of the MSK System: p 125-170 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **October 20**  **(MON)**  **1-3pm** | Lab 6  **LAB ASSIGNMENT 6** | Shoulder Joint Lab |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **October 24**  **(FRI)**  **By 5pm** | **QUIZ 6** | Quiz: Shoulder Joint |  |  |  |
| **Week 11 (October 27 - 31): Elbow & Forearm** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **October 27**  **(MON)**  **10am-12pm** | Lecture | Elbow & Forearm | Chapter 6 of Neuman’s Kinesiology of the MSK System: p183-218 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **October 27**  **(MON)**  **1-3pm** | Lab 7  **LAB ASSIGNMENT 7** | Elbow & Forearm Lab |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **October 31**  **(FRI)**  **By 5pm** | **QUIZ 7** | Quiz: Elbow & Forearm |  |  |  |
| **Week 12 (November 3 - 7): Exam 3 / Wrist & Hand Joints** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Nov. 3**  **(MON)**  **10am-12pm** | **EXAM 3** | Weeks 9-11 |  |  |  |
| **Nov. 3**  **(MON)**  **1-3pm** | Lecture | The Wrist | Chapter 7 of Neuman’s Kinesiology of the MSK System: p226-249 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **Week 13 (November 10 - 14): Wrist & Hand Joints** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Nov. 10**  **(MON)**  **10am-12pm** | Lecture | The Hand | Chapter 8 of Neuman’s Kinesiology of the MSK System: p 262-307 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | BABL |
| **Nov. 10**  **(MON)**  **1-3pm** | Lab 8  **LAB ASSIGNMENT 8** | Wrist & Hand Lab |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Nov. 14**  **(FRI)**  **By 5pm** | **QUIZ 8** | Quiz: Wrist & Hand |  |  |  |
| **Week 14 (November 17 - 21):** **Upper Extremity Mechanics During Gait** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Nov. 17**  **(MON)**  **10-12pm** | Lecture | Upper Extremity Mechanics During Gait | Chapter 15 of Neuman’s Kinesiology of the MSK System: p 669-675, 689 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Nov. 17**  **(MON)**  **1-3pm** | Lab 9  **LAB ASSIGNMENT 9** | Upper Extremity Mechanics During Gait Lab |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 | CARTER & BABL |
| **Nov. 21**  **(FRI)**  **By 5pm** | **QUIZ 9** | Quiz: UE in Gait |  |  |  |
| **Week 15 (November 24 - 28): Thanksgiving Break** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **Nov. 24**  **(MON)**  **10am-12pm** | **No Class – Thanksgiving Break** |  |  |  |  |
| **Nov. 24**  **(MON)**  **1-3pm** | **No Lab – Thanksgiving Break** |  |  |  |  |
| **Week 16 (December 1 - 5): Case Study Presentations & Lab Practical 2** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **December 1**  **(MON)**  **10-12pm** | **CASE STUDY PRESENTATIONS** | Group Assigned Case Study Presentations |  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 |  |
| **December 1**  **(MON)**  **1-3pm** | **LAB PRACTICAL 2** | Shoulder, Elbow, Wrist, & Hand Practical |  | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 |  |
| **Week 17 (December 8 - 12): Final Written Exam** | | | | | |
| **Date/Time** | **Learning Activity & Assessment(s)** | **Topic(s)** | **Readings/Learning Material(s)** | **SLO** | **Lecturer/Lab Director** |
| **COURSE EVALUATIONS** | **AU eValuate + DPT Curriculum Evaluation** |  |  |  |  |
| **FINAL EXAMS** | **COMPREHENSIVE WRITTEN FINAL EXAM** | Weeks 12-16 + Cumulative Course Content |  |  |  |

**This course syllabus is informative and is not a contract. The syllabus and proposed schedule are subject to revision at the discretion of the instructor without advanced notice.**

**Course Evaluation and Grading Scale:**

Participation in these graded course components is not optional. Students will be responsible for materials presented in the lectures, labs, required texts and any assigned readings. Students are also responsible for material presented in other courses within the Auburn University physical therapy program curriculum as concepts within the program are interdependent. Once the material has been presented in class, students will be responsible for this material on subsequent examinations, courses, and clinical education components.

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| **Evaluation Tools** | **Percentage of Grade** |
| Written Exam 1 | 45 pts. (11.25%) |
| Written Exam 2 | 45 pts. (11.25%) |
| Written Exam 3 | 45 pts. (11.25%) |
| Comprehensive Final Written Exam | 75 pts. (18.75%) |
| Lab Practical Exams (x2) | 60 pts. Total (15%)  (30 pts. each x2) |
| Quizzes (x9) | 45 pts. Total (11.25%)  (5 pts. each x9) |
| Lab Assignments (x9) | 45 pts. Total (11.25%)  (5 pts. each x9) |
| Case Study Presentation | 40 pts. (10%) |
| Completion of Course Evaluation(s)   * AU eValuate * DPT Program Specific Evaluation | Up to 4 bonus points (2 pts. each) |
| **Total** | 400 pts. (100%) |

**COURSE EXAMS - 210 pts. for 52.5% of Total Grade (See Breakdown of Exams Above):**

Exams will be conducted in person using the Canvas learning management system requiring download of Respondus Lockdown Browser or ExamSoft software requiring Examplify download by students. Students must bring a fully charged computer to complete the computer-based exams. If a technical issue occurs during an exam, it is the student’s responsibility to immediately inform the instructor(s) of record or the exam proctor.

Exams must be taken during the assigned dates and times. If a student is unable to take an exam as scheduled due to a medical reason, they must provide a written excuse from a healthcare provider to request a make-up exam. For other compelling and unexpected circumstances, students must contact the instructor(s) of record as soon as possible to be considered for a make-up exam. The decision to grant a make-up exam and any associated grading policies will be at the instructor(s) of record's discretion. A grade of zero will be assigned for missed exams due to unexcused absences.

Exam reviews with the course instructor(s) will be scheduled either during normal class time or outside of normal class hours for those that wish to attend. Additionally, individual exam reviews may be scheduled with the instructor(s) of record for students wishing to review their exam individually. Students may reach out to the instructor of record to schedule an individual exam review time. Additional instructions on how to schedule an exam review and the relevant policies will be provided by the instructor(s) of record.

**LAB PRACTICAL EXAMS (x2) - 60 pts. Total (30 pts. each) for 15% of Total Grade:**

To ensure competency in foundational clinical skills, students will complete **two lab practical exams based on various skills introduced and developed throughout the course**. Further instruction, including grading, will be shared by the instructors of record. Lab practical exams must be taken during the assigned dates and times. If a student is unable to take a lab practical exam as scheduled due to a medical reason, they must provide a written excuse from a healthcare provider to request a make-up exam. For other compelling and unexpected circumstances, students must contact the instructor(s) of record as soon as possible to be considered for a make-up lab practical exam. The decision to grant a make-up lab practical exam and any associated grading policies will be at the instructor(s) of record's discretion. A grade of zero will be assigned for missed lab practical exams due to unexcused absences.

To successfully pass the course, students must achieve a passing score of 70% or higher on each individual lab practical. Any safety violation observed during a practical will result in an automatic failure of that attempt and will require remediation before progression. If remediation is required, the maximum achievable score on the remediated attempt will be 80%.

**ONLINE QUIZZES (x9) – 45 pts. Total (5 pts. each) for 11.25% of Total Grade:**

Online quizzes will be assigned each week to be completed independently via the Canvas learning management system or ExamSoft software requiring Examplify download by students. Quizzes will be opened during the week following lecture and lab and will be due by 9:00PM on the Friday of the week for which it was assigned. Students will be allowed **two** attempts for each quiz with the highest grade being recorded. Quizzes are intended to provide formative assessment opportunities in which students can gauge their understanding and application of the material presented that week.

Quizzes must be completed by the assigned due dates and times. Late submissions will receive a 10% deduction in points for each 24-hour period past the deadline, for up to five days. Quizzes submitted more than five days late will receive an automatic grade of zero.

If a student cannot take a quiz as scheduled due to medical reasons, a written excuse from a healthcare provider must be provided for an extension. For other compelling and unexpected circumstances, students must notify the instructor(s) of record as soon as possible to be considered for an extension. The decision to grant an extension and any adjustments to grading are at the discretion of the instructor(s) of record.

**LAB ASSIGNMENTS (x9) – 45 pts. Total (5 pts. each) for 11.25% of Total Grade:**

During laboratory sessions, students will work through designated questions and activities, typically with a partner or in a small group. These lab assignments are intended to strengthen problem-solving skills, reinforce key concepts, and promote teamwork within a clinical learning environment. Completed labs must be submitted as a group by the assigned due date and time. Lab Assignments will be due by 9:00pm on the Monday following lab.

Lab assignments must be completed by the assigned due dates and times. Late submissions will receive a 1point (20%) deduction. For each additional 24-hour period past the deadline, an additional 0.5-point (10%) deduction will be made for up to five days. Lab assignments submitted more than five days late will receive an automatic grade of zero.

Each lab assignment is worth five (5) points towards the final course grade. Assignments will be evaluated based on completion of all required lab elements, accuracy and thoroughness of responses, correct application of concepts, and professional presentation (i.e., organized, clear, content readability, free of spelling/grammatical errors, professional language). There will be a total of nine (9) lab assignments, contributing 45 points to the overall course grade. Late submissions may be subject to a grade penalty unless prior approval is granted for extenuating circumstances.

If a student misses a lab without prior notification (at least one week in advance) and an approved excuse, they will receive no credit for their group’s lab assignment for that session. An exception will be made for unexpected, verifiable excused absences due to illness or other emergencies; in such cases, the student must notify the course instructor(s) as soon as reasonably possible and provide a note from a healthcare provider when able. Students with an approved excuse must complete the lab independently and submit their own work, separate from their assigned lab group. This will typically involve practicing any lab skills covered in the missed session with a classmate or another approved partner, answering questions, completing lab activities and documenting results, as well as reviewing any new information or materials presented during the lab. The course instructor(s) will provide an adjusted due date for the make-up work based on the nature of the missed assignment. Extensions are granted at the discretion of the instructor(s) and may vary depending on the content and requirements of the lab.

Students are encouraged to engage fully in any lab discussions, share diverse perspectives, and apply critical thinking skills to enhance their understanding of physical therapy principles. Active participation in these assignments will not only contribute to course performance but also foster collaboration—an essential skill in clinical practice.

**CASE STUDY PRESENTATION – 40 pts. Total for 10% of Total Grade:**

Students will be assigned to collaborative groups to analyze a variety of patient case studies. The goal of this assignment is to introduce students to clinical scenarios and guide them through the initial stages of patient examination, evaluation, and intervention planning—while emphasizing anatomical and biomechanical considerations. Each group will be responsible for identifying and synthesizing current research evidence relevant to their assigned case and presenting their analysis to the class. Additional assignment details, including grading criteria, will be provided by the course instructor(s).

If a student misses their group’s scheduled presentation without a prior approved excuse, they will receive no assignment credit. Students with an approved excuse, including an unexpected illness with documentation from an appropriate healthcare provider, will be required to complete an alternative, equivalent assignment determined by the instructor(s). This may involve submitting an individual written report or recording a presentation covering their portion of the project. The alternative assignment must be completed and submitted by the deadline set by the instructor(s), which may be adjusted based on the circumstances and supporting documentation provided.

**COURSE & PROGRAM EVALUATIONS – Up to 4 Bonus Points (2 pts. each evaluation):**

The AU Physical Therapy Program values open communication and collaborative engagement with students to foster a positive and effective learning environment. We believe that student feedback is essential to enhancing educational experiences and outcomes.

In keeping with our commitment to collaboration, mutual respect, and shared responsibility, students will be asked to complete various course and program-level evaluations at designated points throughout the semester. This includes participation in the AU eValuate course assessments near the end of each term.

To ensure participation, students will be required to submit confirmation of evaluation completion—**not the evaluation content or results**—for all assigned course evaluations. Full bonus point credit will be awarded upon proof of completion and will be added to the final course written examination.

**Grading Scale Points: Grade Scale Letter Grade:**

360 – 400 Points A 90% - 100%

320 – 359 Points B 80% - <90%

280 – 319 Points C 70% - <80%

240 – 279 Points D 60% - <70%

Less Than 240 Points F <60%

* The Doctor of Physical Therapy Program at Auburn University does NOT round grades.
* Dropping all courses between **August 18 and September 8, 2025,** will result in a $100 resignation fee.
* Dropping a course between **August 23 and September 8, 2025,** will result in a $100 drop fee per course dropped.
* **September 1, 2025** (The 15th Class Day**)** is the last day to drop from a course with no grade assignment and for a potential tuition refund for dropped courses.
* The last day to withdraw from a course or school without receiving a “W” grade is **Friday November 21, 2025**.
* Students must earn a grade of ‘C’ or higher to receive credit for this course. Please refer to the AU DPT Student Handbook for policies on repeating courses that do not meet the minimum grade standard for graduate courses.

**Grade Disputes:**

If you would like to dispute a question or grade on an assignment or exam, you must do so in writing within **48 hours** of when the assignment or exam is returned. In your written dispute, you must include your rationale for the dispute and any related references (textbook, article, etc.).

**COURSE EXPECTATIONS**

**Justification for Graduate Credit:**

Successful completion of the Auburn University Physical Therapy Program requires the student to demonstrate a depth and sophistication of knowledge substantially beyond the level required for a baccalaureate degree. Consequently, all courses are progressively more advanced in academic content than undergraduate courses. This program provides capable students with the opportunity to pursue advances study, training, and research designed to enhance their academic and professional development.

**Technology, Communication, & Social Media:**

Students are responsible for checking university email and the Canvas site regularly. Phones, tablets, laptops are welcome in the classroom for use in course related activities. Regular subtle use of devices (text, social media, etc.) should be avoided. Students are expected to refrain from phone calls, text-messaging, non-course related computer or internet use, and online social networking during class and laboratory sessions.

**Lecture or Lab Recordings:**

Lectures may not be recorded (audio or video) unless you have received written permission from the instructor(s), or it is part of academic accommodations granted by the Office of Accessibility. If the instructor(s) grants you permission to record a lecture, recordings are **ONLY** for personal use and may not be posted or distributed in any form without explicit permission from the instructor(s) to do so.

**Class Attendance, Tardiness, & Participation:**

As adult learners in the AUPT program, every class and lab are important to facilitate development, and therefore attendance is mandatory for the scheduled didactic, lab, and clinical education experiences. We strongly encourage students to attend and actively participate in every lecture and lab session. Missing class adversely affects learning and contributes to poor academic performance. Tardiness also disrupts the class, your peers, and instructor(s). Being present and on time to every scheduled class or lab is the professional responsibility of the student. **Requests for an excused absence must be sent to the instructor(s) in writing at least one week in advance of class and may or may not be granted at the discretion of the instructor(s). In the event a student is absent due to sudden illness or other emergent circumstance, the instructor must be notified by email as soon as possible before class begins.** Any tardiness or absence from class without prior consent of the instructor(s) will be considered unexcused. At the discretion of the instructor(s), two unexcused absences in a course may result in a failing grade for the at course (see attendance policy in AU DPT Student Handbook). The student is responsible for all material covered in class regardless of whether an absence is excused or unexcused. Graded assignments, quizzes, and exams that are missed during an excused absence may be rescheduled with prior permission of the instructor(s). **Graded class work will not be rescheduled for unexcused absences; the student will receive a grade of ‘0’ for any missed work.**

**Excused Absences:**

Students are granted excused absences from class for the following reasons: Illness of the student or serious illness of a member of the student’s immediate family, death of a member of the student’s immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance and religious holidays. **Requests for an excused absence must be sent to the instructor(s) in writing at least one week in advance of class and may or may not be granted at the discretion of the instructor(s). In the event a student is absent due to sudden illness or other emergent circumstance, the instructor must be notified by email as soon as possible before class begins.** Appropriate documentation for all excused absences is required.

**Religious Holidays:**

A student who is unable to participate in any class, examination, or assignment due to religious holiday requirements shall not be penalized, provided the instructor has been notified in writing **one week in advance** of the absence.

**Make Up Policy:**

Students may arrange to make up a missed major graded assessments (e.g., exams, quizzes, class assignments, presentations) only if the absence is officially excused in accordance with university, department, and class policies. The student is responsible for initiating arrangements to complete the missed work. Unless there are extenuating circumstances (e.g., prolonged illness, official university closure), make-up work will take place within two weeks from the time the student initiates arrangements for it but is at the discretion of the instructor(s). No make-up opportunities will be granted for unexcused absences, except in extraordinary circumstances and at the discretion of the instructor(s). Documentation supporting the excused absence may be required before a make-up is scheduled.

**Laboratory Dress Code Policy:**

To ensure a professional environment and promote safety and preparedness for clinical practice, all students enrolled in this course must adhere to the dress code policies established in the Auburn University Physical Therapy Student Handbook, course policies on Professional Behaviors and Attire. Specific instructions regarding laboratory dress code for this course are outlined below.

For hands-on lab sessions, students should wear attire that allows for unrestricted movement and facilitates effective examination and treatment techniques. Proper undergarments, such as sports bras and compression shorts, are recommended to ensure modesty and ease of movement. Additionally, students may be required to wear tank tops or sports bras for certain sessions involving palpation and assessment techniques. Knee-length athletic shorts should be worn for lower extremity assessments or treatment procedures. Course instructors will make every effort to provide students with advance notice regarding appropriate attire for upcoming laboratory sessions to optimize the learning experience. For personal safety, the safety of others, and the preservation of laboratory equipment such as upholstered tables, students are advised to avoid wearing loose or excessive jewelry or refrain from carrying sharp objects on their person.

Professionalism and hygiene are essential in the laboratory environment. Students are expected to wear clean, well-maintained clothing that is free from excessive wrinkles, stains, or damage. Maintaining good personal hygiene, including the use of deodorant, trimmed nails, and appropriate grooming, is required. To accommodate potential sensitivities, students should minimize the use of strong perfumes or colognes.

Failure to comply with the dress code policy may result in consequences such as a verbal warning, loss of participation credit, or dismissal from the lab session. Repeated or significant violations may require students to make up missed work at the instructor’s discretion. This policy mirrors expectations in clinical settings and is intended to foster a safe and professional learning environment. Students with any questions or accommodation requests should contact the course instructor in advance.

**Generative Artificial Intelligence Tools:**

In this course, students are permitted to use Generative AI Tools such as Microsoft Copilot, ChatGPT, Claude, or Gemini for specific assignments, as designated by the instructor. To maintain academic integrity, students must disclose any use of AI-generated material. As always, students must properly use attributions, including in-text citations, quotations, and references. Students should exercise caution and avoid sharing any sensitive or private information when using these tools. Examples of such information include personally identifiable information (PII), protected health information (PHI), financial data, intellectual property (IP), and any other data that might be legally protected.

A student should include the following statement in assignments to indicate use of a Generative AI Tool: “The author(s) would like to acknowledge the use of [Generative AI Tool Name], a language model developed by [Generative AI Tool Provider], in the preparation of this assignment. The [Generative AI Tool Name] was used in the following way(s) in this assignment [e.g., brainstorming, grammatical correction, citation, which portion of the assignment].”

**Academic Honesty:**

All portions of the Auburn University Student Academic Honesty code (Title XII) found in the [Student Policy eHandbook](https://www.auburn.edu/student_info/student_policies/) as well as the AU Physical Therapy Program Student Handbook will apply to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee. The University adheres to a strict policy regarding cheating and plagiarism. These activities will not be tolerated in this class or within the AU Physical Therapy Program. Any cheating or plagiarism will result in a disciplinary review by Student Affairs. Penalties for cheating and plagiarism may include a failing grade on an assignment, failing the course, and/or expulsion from the AU Physical Therapy Program and Auburn University.

Examples of plagiarism include but are not limited to:

* Using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs, and/or pages of work).
* Copying and pasting work from an online or offline sources directly and calling it your own.
* Using information you find from an online or offline source without giving the author credit or citing the source.
* Replacing words or phrases from another source and inserting your own words or phrases.
* Submitting a piece of work you did for one class to another class.

If you have questions on what is plagiarism, please consult the [policy](https://www.auburn.edu/academic/provost/academic-honesty/#:~:text=Cheating%20and%20plagiarism%20are%20expressly,in%20their%20areas%20of%20study.).

For more information on University and DPT Program policies regarding cheating and plagiarism, refer to the AU Catalogue and the DPT Program Student Handbook.

**Classroom Behavior & Mutual Respect:**

The Auburn University Classroom Behavior Policy is strictly followed in the course; please refer to the [Student Policy eHandbook](https://www.auburn.edu/student_info/student_policies/) and the AU Physical Therapy Program Student Handbook for details of this policy. Professionalism and respect are core expectations in this course. As graduate students and future health care professionals, it is essential to foster a classroom environment grounded in civility, courtesy, and mutual respect. All students are expected to engage in discussions and group work with openness, professionalism, and a willingness to consider diverse viewpoints. Disagreements may occur, but they must be communicated in a respectful and constructive manner. Active listening, thoughtful participation, and respectful interactions with both peers and the instructor(s) are required at all times. Creating a supportive and inclusive learning environment allows everyone to thrive, and models the professional behavior expected in academic, clinical, and interprofessional settings.

**Emergency Contingency:**

If normal lecture or lab activities are disrupted due to illness, emergency, or crisis situation, the syllabus and other course plans and assignments may be modified to allow completion of the course. If this occurs, an addendum to your syllabus and or course assignments will replace the original materials.

**STUDENT SUPPORT**

**Disability Accommodations:**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Office of Accessibility at (334)844-2096 and visit <https://accessibility.auburn.edu/steps-to-receive-accomodations/>. To avoid any delay in the receipt of any accommodations, you should contact the Office of Accessibility as soon as possible. Please note that accommodations are not retroactive, and that the instructor(s) cannot provide accommodations based upon disability until they have received an accommodation letter from the Office of Accessibility. Your cooperation is appreciated. If you have an existing documented disability, please provide the instructor(s) with documentation no later than the **second class meeting** so that reasonable accommodations can be made. Students who need accommodations should submit their approved accommodations through the AIM Student Portal on AU Access and follow up with the course instructor(s).

Students who have not established accommodations through the Office of Accessibility, but need accommodations, should contract the Office of Accessibility.

* + Email: [accessibility@auburn.edu](mailto:accessibility@auburn.edu)
  + Phone: (334) 844 – 2096
  + Location: Haley Center 1228

**Mental Health:**

If you are experiencing stress that feels unmanageable (personal or academic) during the semester, Auburn University’s Student Counseling & Psychological Services (SCPS) offers a variety of services to support you. The mission of SCPS is to provide comprehensive preventative and clinical mental health services to enhance the psychological well-being of individual students, as well as the broader campus culture. The instructor(s) is/are available to speak with you regarding stresses related to your work in this course and can assist in connecting you with the SCPS network of care. You can schedule an appointment yourself with the SCPS by calling (334) 844-5123 or by stopping by their offices on the bottom floor of Haley Center or the second floor of the [Auburn University Medical Clinic.](https://cws.auburn.edu/map/?id=150)

If you or someone you know needs to speak with a professional counselor immediately, the SCPS offers counseling during both summer term as well as the traditional academic year. Students may come directly to the SCPS and be seen by the counselor on call, or you may call (334) 844-5123 to speak with someone. Additional information can be found at <https://scps.auburn.edu/>.

**Basic Needs Resources:**

Anyone who faces challenges securing their food or housing and believes this may affect their performance in the course or others is urged to contact Auburn’s Basic Needs Center for support at <https://aucares.auburn.edu/basic-needs-resources/>. Furthermore, please notify the instructor(s) if you are comfortable in doing so this will allow the faculty member to connect you with any other known resources.

**Sexual Misconduct Resources Statement:**

Auburn University faculty are committed to supporting our students and upholding gender equity laws as outlined by Title IX. Please be aware that if you choose to confide in a faculty member regarding an issue of sexual misconduct, dating violence, or stalking, we are obligated to inform the Title IX Office, who can assist you with filing a formal complaint, No-Contact Directives, and obtaining supportive measures. Find more information at <https://auburn.edu/administration/tix-eeo/>.

If you would like to speak with someone confidentially, Safe Harbor (334-844-7233) and Student Counseling & Psychological Services (334-844-5123) are both confidential resources. Safe Harbor provides support to students who have experienced sexual or relationship violence by connecting them with academic, medical, mental health, and safety resources. For additional information, visit <https://studentaffairs.auburn.edu/safe-harbor/>.