

Final Exam (Fall 2025)

PHYS 205B: UNIVERSITY PHYSICS

School of Physics and Applied Physics, Southern Illinois University–Carbondale

Date: 2025 Dec 9

(Name)

(Signature)

Instructions

1. Seating direction: In alternate rows, B, D, F, $\dots$, on even-numbered seats.
2. Total time = 120 minutes.
3. There are 4 short questions and 3 homework-style problems in this exam.
4. Equation sheet is provided separately.
5. For partial credit you need to present your work in detail and organize it clearly.
6. A simple calculator (with trigonometric functions) is allowed.
7. Use of smart devices, including smart watches, is strictly prohibited. They should stay out of reach during the exam.
8. Academic misconduct will lead to a failing grade in the course.

1. (**5 points.**) Content before MT-01.
2. (**5 points.**) Content between MT-01 and MT-02.
3. (**5 points.**) Content between MT-02 and MT-03.
4. (**5 points.**) Content after MT-03.
5. (**10 points.**) Content before MT-03.
6. (**10 points.**) On spherical mirrors. Ray diagram.
7. (**10 points.**) On spherical lens. Ray diagram.