Errata (Fall 2023)

PHYS 205A-002: UNIVERSITY PHYSICS

School of Physics and Applied Physics, Southern Illinois University–Carbondale Last updated: August 20, 2023

The following is not a complete list. It is being maintained since 2022 Feb 9, and is expected to evolve.

1. 2018 Spring, MT-03 Solutions, Problem 1: In the equation for W, after the second equality, replace $(2 - 0) \rightarrow (3 - 0)$, which changes the evaluations that follow there. That is,

$$W = \frac{1}{2}(6-0)(20-10) - \frac{1}{2}(3-0)(30-20)$$

= 30 - 15 = 15 J. (1)

2. 2021 Spring, HW-04A, Problem 3, in the video for Solutions between 18:00 and 19:15 time stamps: evaluation of Δt leads to 0.52 s, not 0.27 s. This error leads to an error in the evaluation of Δx . It should be

$$\Delta x = v_{ix} \Delta t = (3.50)(0.52) = 1.8 \,\mathrm{m/s.} \tag{2}$$

- 3. 2021 Spring, MT-03 Solutions, Problem 6: In the equation for W_f , there should be a negative sign after the fifth equality. That is, $W_f = -2100 \text{ J}$.
- 4. 2021 Spring, HW-12, Problem 3d, in the video for Solutions has errors between time stamps 22:50 and 24:20. The correct solution is available in the recording of the lecture dated 20210428 on Gravitational Potential between time stamps 41:30 and 45:05.