

# MIT ESP – Summer HSSP 2023

## Week 1 Resources

Course Instructor: Adam Kim

These resources are meant to help students review the physics concepts discussed or mentioned in the course lectures. Students are encouraged to explore other resources that may work better for them as the links below are just suggestions.

### Suggested Readings:

- From MIT OCW “Classical Mechanics” Online Textbook: <https://ocw.mit.edu/courses/8-01sc-classical-mechanics-fall-2016/pages/online-textbook/>
  - Chapter 3: Vectors
  - Chapter 7: Newton’s Laws of Motion
  - Chapter 13: Energy, Kinetic Energy, and Work
    - Pages 1-26
- From MIT OCW “Electromagnetic Energy: From Motors To Lasers” Online Lecture Notes: <https://ocw.mit.edu/courses/6-007-electromagnetic-energy-from-motors-to-lasers-spring-2011/pages/lecture-notes/>
  - Lecture 2: Energy and Power
    - Pages 3-6, 17-19

### Suggested Videos:

- From MIT OCW “Classical Mechanics” Online Lecture Videos:
  - Vectors: <https://ocw.mit.edu/courses/6-007-electromagnetic-energy-from-motors-to-lasers-spring-2011/pages/lecture-notes/>
  - Newton’s Laws of Motion: <https://ocw.mit.edu/courses/8-01sc-classical-mechanics-fall-2016/pages/week-2-newtons-laws/>
    - Lesson 4
  - Kinetic Energy and Work: <https://ocw.mit.edu/courses/8-01sc-classical-mechanics-fall-2016/pages/week-7-kinetic-energy-and-work/>
    - Lesson 20
- From Khan Academy Physics Library: <https://www.khanacademy.org/science/physics>
  - Unit 3: Forces and Newton’s laws of motion
  - Unit 5: Work and energy