Collapse All

Office hours

Class photo 1.jpg

Class photo 2.jpg

Prof. McIver: Thursday 4-5pm, Pupin 814

TA office hours:

Xiaozhou Xu (xx2381): Tues/Thurs 9-10am | Pupin theory center

Cooper Xie (qx2247): Monday 12-1pm | Pupin 814

Erin Suh: (ecs2247) Wednesday 7-9pm | Pupin theory center (snack & solve)

Ali Abroumand Azar (aa5065): on request (grader)

Welcome to Classical and Quantum Waves!

Syllabus PHYS 2601 Fall 2025.pdf (will update)

Week 1 | Unit 1: Simple Harmonic Motion

Tuesday, September 2 (King Ch. 1)

PHYS 2601 Intro lecture (Fall 25).pdf

2601_Lecture 1.pdf

Thursday, September 4 (King Ch. 1)

2601_Lecture 2.pdf

Problem Set 1
Sep 14, 2025 25 pts

Week 2 | Unit 1: Simple + Damped Harmonic Motion

Tuesday, September 9 (King Ch. 1): NO CLASS (video lecture)

Lecture 3 video

2601_Lecture 3.pdf

LC oscillator video

Thursday, September 11 (King Ch. 2): NO CLASS (video lecture)

Lecture 4 video

2601_Lecture 4.pdf

Problem Set 2
Sep 21, 2025 40 pts

Week 3 | Unit 1: Damped + Forced Harmonic Motion

Tuesday, September 16 (King Ch. 2)

2601_Lecture 5.pdf

Thursday, September 18 (King Ch. 3)

2601_Lecture 6.pdf

2601_Lecture 7.pdf

Lecture 7 video

Problem Set 3
Sep 28, 2025 30 pts

Week 4 | Unit 1: Coupled Harmonic Motion

Tuesday, September 23 (King Ch. 3-4)

2601_Lecture 8.pdf

Thursday, September 25 (King Ch. 4)

2601_Lecture 9.pdf

Problem Set 4
Oct 5, 2025 30 pts

Week 5 | Unit 1: Forced Coupled Harmonic Motion

Tuesday, September 30 (King Ch. 4)

2601_Lecture 10.pdf

Thursday, October 2 (Midterm review class)

Sample_Midterm.pdf

Sample_Midterm_Solutions.pdf

2601_Midterm 1 (2024).pdf

Problem Set 5
Oct 12, 2025 25 pts

Week 6 | Unit 2: Waves

Tuesday, October 7 (King Ch. 5)

2601_Lecture 11.pdf

Thursday, October 9 (King Ch. 5)

2601_Lecture 12.pdf

Week 7 | Unit 2: MIDTERM!

Tuesday, October 14 MIDTERM!!

Thursday, October 16 (King Ch. 5)

2601_Lecture 13.pdf

Problem Set 6
Oct 28, 2025 35 pts

Week 8 | Unit 2: Traveling Waves

Tuesday, October 21 (King Ch. 6)

2601_Lecture 14.pdf

Thursday, October 23 (King Ch. 6)

2601_Lecture 15.pdf

Problem Set 7
Nov 2, 2025 45 pts

Week 9 | Unit 2: Interference and Diffraction

Tuesday, October 28 (King Ch. 7)

2601_Lecture 16.pdf

Lecture 16 video

Thursday, October 30 (King Ch. 8)

2601_Lecture 17.pdf

Fourier Transform Video

2D standing waves

Problem Set 8
Nov 9, 2025 30 pts

Week 10 | Unit 2: Dispersion of waves

Tuesday, November 4 HOLIDAY NO CLASS

Thursday, November 6 (King Ch. 8)

2601_Lecture 18.pdf

Problem Set 9
Nov 16, 2025 45 pts

Week 11 | MIDTERM WEEK

Tuesday, November 11 Midterm Review Class

2601_Practice_Midterm_2.pdf

Practice_Midterm_2_Solutions.pdf

Thursday, November 13 MIDTERM 2 (Unit 2 content only)

Week 12 | Unit 3: Quantum waves

Tuesday, November 18

Thursday, November 20

2601_Lecture 19.pdf

Week 13 | Thanksgiving week (NO CLASS)

Tuesday, November 25 (NO CLASS; YouTube lectures)

Thursday, November 27 (NO CLASS; Thanksgiving holiday)

A brief history of quantum mechanics

What is the Schrödinger equation?

Parallel worlds

Problem Set 10
Dec 7, 2025 30 pts

Week 14 | Unit 3: Quantum waves & final review

Tuesday, December 2

2601_Lecture 20.pdf

Thursday, December 4 (Last class; Final exam review session)

2601_Final.pdf