PHYSICS 315: FALL 2016

GENERAL INFORMATION

Course Number	PHY 315
Unique Number	56045
Course Title	Wave Motion and Optics
Prerequisite Courses	M 427K, PHY 316, PHY 116L
Corequisite Course	PHY 115L
Instructor	Prof. Richard Fitzpatrick
Instructor Office Phone	512-650-7295
Instructor E-Mail	rfitzp@farside.ph.utexas.edu
Instructor Office Location	RLM 11.324
Instructor Office Hours	Tues. 2–5 pm
Required Text Title	Oscillations and Waves: An Introduction
Required Text Author	Richard Fitzpatrick
Required Text Publisher	Taylor & Francis Group, CRC Press
D	070 1 ACCF CCOO 0

978-1-4665-6608-8

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Required Text ISBN Required Text Seller

LECTURE SCHEDULE

Date	Lecture No.	Topic
08/24-08/29	1–3	Simple Harmonic Oscillation
08/31-09/09	4 - 7	Damped and Driven Harmonic Oscillation
09/12 - 09/16	8-10	Coupled Oscillations
09/19-09/26	11 - 14	Transverse Standing Waves
09/30 - 10/07	15 - 18	Longitudinal Standing Waves
10/10 - 10/21	19 - 24	Traveling Waves
10/24 - 10/28	25 - 27	Multi-Dimensional Waves
10/31 - 11/04	28 - 30	Wave Pulses
11/07 - 11/14	31 - 34	Dispersive Waves
11/18 - 12/05	34 - 40	Wave Optics

HOMEWORK SCHEDULE

Assign Date	Due Date	Homework No.
08/31	09/07	1
09/07	09/14	2
09/14	09/21	3
09/28	10/05	4
10/05	10/12	5
10/12	10/19	6
10/19	10/26	7
10/26	11/02	8
11/02	11/09	9
11/16	12/30	10

EXAM SCHEDULE

Date	Exam	Comments
09/28	Midterm 1	In class. Covers all material discussed in Lectures 1–14.
11/16	Midterm 2	In class. Covers all material discussed in Lectures 15–34.
12/09	Final	Comprehensive.

CALCULATION OF FINAL PERCENTAGE SCORE

Assignment Type	Number	Number to Drop	% per Assignment	Total $\%$
Homework	10	0	5	50
Midterm Exam	2	0	10	20
Final Exam	1	0	30	30

CALCULATION OF FINAL LETTER GRADE

% Score	Grade	% Score	Grade
90.0-100	А	70.0-73.3	С
86.6-90.0	A-	66.6 - 70.0	C-
83.3-86.6	B+	63.3 - 66.6	$\mathrm{D}+$
80.0 - 83.3	В	60.0-63.3	D
76.6 - 80.0	B-	56.6 - 60.0	D-
73.3 - 76.6	C+	0.00 - 56.6	F

ADDITIONAL INFORMATION

- All problems with prerequisite and corequisite courses should be referred to Kelley McCoy (471-8856, ugaffairs@physics.utexas.edu, RLM 5.216).
- Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259. Students requiring accommodation should present the appropriate letter to the instructor as soon as possible after the first class day.
- This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.

- Students who cannot attend the official office hours should contact the instructor to arrange a mutually convenient weekly meeting time.
- Homework assignments will be handed out in class on the assign date, and also posted on Canvas.
- Homework assignments are due in class on the due date. Late homework will not be accepted without a valid excuse (e.g., illness, family emergency).
- Students are free to discuss homework with classmates, but all written work must be prepared independently.
- Homework solutions will be posted on Canvas.
- All exams are closed book. Students are expected to provide their own paper.
- Make up exams will only be permitted in cases of illness, family emergency, and time conflict with official university activities.
- Exam solutions will be posted on Canvas.
- All scores will be posted on Canvas.
- Attendance will not be used in the determination of the final percentage score.
- A curve may be used in the calculation of the final letter grade.
- Borderline cases will be assigned a grade on the basis of performance in the comprehensive final exam.
- Plus/minus grades will be assigned in the final letter grade.