

PHY 1001: Perspectives in Physics, Biomedical Physics, and Astronomy

COURSE SYLLABUS: FALL 2016

INSTRUCTOR: Professor J. M. Wadehra

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OFFICE HOURS: Mondays and Wednesdays from 9:30 AM to 10:30 AM or by appointment or, simply, drop by.

COURSE PREREQS: High School Math (Algebra and Trigonometry)

MEETING PLACE: Wednesdays from 1:55 PM to 3:50 PM in Room 410 State Hall

1. COURSE MATERIAL.

There is no assigned textbook for this course. You are encouraged to bring your laptop for use in class.

2. HOMEWORK ASSIGNMENTS.

There will be no homework assignments for this course. However, you will be required to write three reports. Each report will not exceed two pages, typewritten in double space. Topics of the reports will be discussed in class.

3. EXAMS AND GRADING.

Your grade in the course will be determined, as follows, by your performance in two exams, in-class weekly quizzes, three reports and your attendance in the class:

Mid Semester Diagnostic Exam	100 points	A or A-:	321-400 pts;
Final Diagnostic Exam	100 points	B+ or B or B-:	241-320 pts;
In-class Weekly Quizzes	100 points	C+ or C or C-:	161-240 pts;
Attendance	70 points	D+ or D or D-:	81-160 pts;
Reports	30 points	F:	0-80 pts.
TOTAL	400 points		

Tentative dates for hourly exams are Wednesday, October 19 and Wednesday, December 7; these exams will be held in the classroom. Results of the hourly exams as well as the graded weekly quizzes will be handed back in the class. **THERE WILL BE NO MAKE-UP EXAMS OR QUIZZES.**

4. LEARNING OBJECTIVES/OUTCOMES

At the successful completion of this course, you will be focused enough to major either in physics or in biomedical physics or in astronomy. You should be comfortable to handle the mathematics used in more advanced undergraduate physics, biomedical physics, and astronomy courses.

5. TOPICS TO BE COVERED.

The syllabus below shows the topics that will be covered in the course.

Topics Covered in PHY 1001: Fall 2016

Date	Topics	Quiz/Exam
W 8/31	Introduction to Department and its Degree Programs, AIP, APS, SPS	
W 9/7	Scientific Methods, MOVIE: Powers of Ten	Initial Diagnostic Exam
W 9/14	Fun things in physics, MOVIE:	Quiz 1 Algebra and Algebraic Equations
W 9/21	Physics Adviser Professor Sean Gavin	Quiz 2 Logs and Exponentials
W 9/28	Fun things in astronomy, MOVIE:	Quiz 3 Analytic Geometry
W 10/5	Astronomy Adviser Professor David Cinabro	Quiz 4 Functions
W 10/12	Fun things in biomedical physics, MOVIE:	Quiz 5 Trigonometry
W 10/19	Biomedical Physics Adviser Professor Zhifeng Huang	Mid semester Diagnostic Exam
W 10/26	Talk by Professor Gil Paz	Quiz 6 More Algebra and Algebraic Equations
FRIDAY 11/4	Department of Physics and Astronomy: Undergraduate Research Conference	Quiz 7 More Logs and Exponentials
FRIDAY 11/11	Wayne State University: Undergraduate Research Conference	Quiz 8 More Analytic Geometry
W 11/16	Planetarium Visit by Mr. Jeff Conn	Quiz 9 More Functions
W 11/23	Holiday – No Class	
W 11/30	Undergraduate Adviser Ms. Dawn Niedermiller	Quiz 10 More Trigonometry
W 12/7	Wrap up and Evaluation	Final Diagnostic Exam