PHY 181: Summer 2023
Syllabus Addendum

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1 Description

A conceptual course on mechanics, including physical quantities, motion, forces, momentum, impulse, work, energy and power. While the course is primarily conceptual, there will be basic computations used to emphasize patterns and relationships.

2 Prerequisites

While the course syllabus states that MAT 102 is required, it has not been required for a fairly long time. However, it is assumed that the student has been exposed to basic algebra in the past. While it is not expected that the student is proficient in algebra, essential mathematics, including algebra, will be taught at an accelerated pace and used throughout the course.

3 Text

In this course we will be using the Salt Water Waste Processing Facility Physics Study Guide. This will be provided via email. There will also be a text addendum published on the course website. This addendum provides some explanation of topics not explained in the course text.

4 Attendance

Since you are being paid to take this class, attendance is taken very seriously. As a result, attendance will be taken twice a day; once before lunch, once after. The specific timing will be at the instructors discretion.

If SRMC has approved you to be absent from class, please have your supervisor contact me regarding the approved absence. If I receive such communication, then you may make up any missed assignments. If you submit the missed assignment before I return the graded assignment to the class, then there will be no deduction. If you submit the assignment afterwards, then there will be a ten point deduction on the assignment.

5 Grading

Throughout the course questions will be asked in the format of in-class questions, worksheets, labs and tests. The questions will be conceptual and algebraic. Partial credit will be given at the instructors discretion. The weights of each classification is as follows.

- 2 Tests: 50% overall
- 5 Labs: 25% overall
- Class work: 20% overall
- Attendance: 5% overall

If x is your score, then your grade is as follows:

$$G(x) = \begin{cases} A & \text{if } 90 \leq x \\ B & \text{if } 80 \leq x < 90 \\ C & \text{if } 70 \leq x < 80 \\ D & \text{if } 60 \leq x < 70 \\ F & \text{if } 0 \leq x < 60 \end{cases}$$

5.0.1 Tests

There will be a midterm and a final. Both the midterm and the final may contain material from any prior portion of the course including the text, lecture, labs and classwork. However, the final test will have much more material from the second half of the class than the first. Both these tests are to be closed book and closed notes. Furthermore, they are to be completed independently. The only form of external aid permitted is a calculator. **A cell phone is not a permissible substitute for a calculator. Furthermore, calculators will not be provided.**

5.0.2 Labs

Five labs will be conducted over the course. They are to completed in groups. The labs will involve hands

on experimentation, mathematical analysis and conceptual questions. Relying on a single person to perform computations is discouraged. Note that any part of the lab is subject to evaluation and deduction. **This includes conceptual questions.**

The labs will be over the following topics.

1. Measuring g using a Pendulum.

2. The Atwood Machine and Newtons Laws.

3. Measuring the Coefficient of Friction.

4. To be determined.

5. The Atwood Machine and Energy.

5.0.3 Classwork

Classwork will be assigned throughout the class in the form of handouts. These assignments are to completed in groups. They are due at the end of the day unless otherwise instructed.

5.0.4 Attendance

The grade on this item is **pass/fail, with 100% being the passing grade.** The only exception is approved absences. For more information, see section 4.

5.1 Curving

If an assignment has a minimum grade of less than 75 or a class average of less than 86, the professor may elect to curve the assignment. The curved grade will be clearly indicated on the assignment and it is the grade that will be shown in the grade book. Since each assignment is curved the overall grade will not be curved at the end of the course. Note that extra credit on an assignment (if any), will added to the grade before the grade is curved.

6 Academic Dishonesty

If a student is caught cheating on an assignment, then the student will be reported to the department chair. Who, at her discretion, may elect to recommend the student for further academic discipline.

7 Schedule

This is the tentative schedule. As such, it is subject to change at any time for any reason. The material will be covered in the order listed in each column.

Date	Text	Addendum	Labs	Tests
2023-05-31	2.1.4, 1.1, 1.2, 1.3.1-1.3.3,	2.1 - 2.5, 3.1-3.4	—	—
2023-06-01	1.4, 3.1-3.3, 4.2	3.5, 3.6, 2.6	1	—
2023-06-07	1.5, 3.3.1, 3.5.5, 3.4, 3.5.4	4, 6.1		—
2023-06-08	3.5	6.2	2	Midterm
2023-06-14	5		3	—
2023-06-15	6		4	—
2023-06-21			5	Final