

# PHYS 4A Syllabus

Course: #52048

Tu: 9:00 – 10:50 AM Physical Science Rm 70, Th: 8:00 – 11:50 AM Physical Science Rm 70, F: 9:00 - 10:50 AM  
Business Rm 42

Instructor: Patrick McDougall

Office Hours: Reedley Library: Tuesday 11:30 am – 1:30 pm

email: patrick.mcdougall@reedleycollege.edu

Textbook: Physics for Scientists and Engineers with Modern Physics, 4<sup>th</sup> Edition. Giancoli, Pearson Publisher.

## Drop Dates:

1/19/2018: If you are thinking about dropping the class, make sure you do so by January 19<sup>th</sup> for a full refund.

1/26/2018: If you want to drop the class and not receive a "W", make sure you do before January 26<sup>th</sup>.

3/9/2018: This is the last day to drop the class and not receive a letter grade.

Automatic drop policy: If you miss the first day of class or miss three classes in a row (including lab classes) before January 26<sup>th</sup>, I will drop you from the class. If you know you are going to miss class time please let me know ASAP. I will be sending an email to those that did not make it to the first class to see if they are still enrolled.

## Adding the Class:

The last day to officially add the class is January 26<sup>th</sup> (January 28<sup>th</sup> on Webadvisor). If you need a permission code to add the class, contact me as soon as possible

## Course Objective:

For many of you this will be your introduction to physics as an engineer/science major. This course is designed to give you a strong base from which the rest of your engineering/science career will be based. It is critical that, above all else, a strong conceptual and practical understanding of the following topics is achieved: Classical Mechanics, Properties of Matter, Gravitation, Fluid Mechanics, Oscillatory Motion and Mechanical Waves.

Students will gain skills in understand the complementary roles of experimental investigation and theoretical explanation in science, apply dimensional analysis to determine the units for an unknown quantity or to check the validity of equations, correctly report the units of an observable when it is measured or calculated and distinguish between important physical observables, such as velocity, acceleration and force.

### Homework:

Homework is essential for understanding the material covered in class. Make sure you complete homework assignments on time and are comfortable answering questions about each problem. I encourage you to find a study group and work on the homework assignments together. Your homework grade will account for 15% of your overall grade.

Homework assignments will be completed on MasteringPhysics. To enter the class, use the code PMCDOUGALL88072

### Laboratory:

The laboratory class meets on Thursday and is just as important as the lectures on Tuesday and Friday. Laboratory experience gives you the chance to test these concepts in a hands-on way. Each laboratory class will have a unique experiment meant to test your conceptual understanding as well as teach you research skills. On Friday, at 3:00 PM, a laboratory report will be due on Canvas relating to the experiment performed on Thursday. The laboratory reports will contribute 20% of your overall grade.

### Exams:

There will be two exams over the course of the semester. These tests will be taken during the laboratory section of the class on Thursdays. The exam will be half multiple choice and half free response. You will have one and a half hours for each exam. Both exams will make up 30% of your overall grade.

Make up Exams: If you miss an exam you will not be able to perform a makeup exam. The only exception to this rule is a valid medical or campus excuse. If you know in advance something is happening on exam day let me know ASAP.

### Participation:

During the last hour of class on Fridays we will have a student run problem solving session. One at a time, a student will be assigned to come to the front of the class and solve an assigned homework problem. Students will be selected randomly throughout the semester. While you are solving the assigned problem, make sure to clearly go through each step of solving the problems and explain any assumptions that the theory contains. I will ask questions as you solve the problem to promote good problem-solving skills as well as clear any misconceptions. Completing the problem will be worth 10% of your overall grade

### Final Exam:

There will be a final exam for this course that is cumulative with an emphasis on the material at the end of the semester. This will account for 25% of your overall grade. The final exam will be held on Thursday, May 17<sup>th</sup> from 9:00 am – 10:50 am in Physical Science Room 70.

### Grading Policy:

Your final grade will be assigned at the end of the semester as outlined above. Below is how final grades will be assigned as well as a tabulated list of each weighed category.

90.0-100%	A	Homework	15%
80.0-89.9%	B	Laboratory	20%
65.0-79.9%	C	Exams	30%
55.0-64.9%	D	Participation	10%
0-54.9%	F	Final Exam	25%

Notice that there are three significant figures on each of the grade ranges. At the end of the semester I will be rounding according to three significant figures. Please take this into consideration if you wish to discuss your final grade at the end of the semester. During the semester, some tests/assignments may prove harder than anticipated. If this is the case, I will make a note in my gradebook and examine how the individual assignment effects the overall average grade of the class. If the overall average grade of the class is below expectations, I will curve the final grade. Please do not ask for individual tests/assignments to be curved.

#### Student Conduct:

Students are expected to conduct themselves in a responsible manner as outlined by the board policy 5410. Conduct standards are designed to perpetuate the college's educational purposes, allowing students to enjoy the right of freedom to learn. Failure to adhere to the accepted standards will result in disciplinary action.

#### Accommodations for Students with Disabilities:

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me and DSP&S as soon as possible.

#### Plagiarism and Cheating:

Cheating and plagiarism is prohibited in the class. Incidents of cheating and plagiarism will result a failing grade on the particular examination or assignment in question.

#### Campus Tutoring Services:

With this statement on my course syllabus, I am referring each of my enrolled students in need of academic support to tutorial services. Referral reason: Mastering the content, study skills, and basic skills of this course is aided by the use of trained peer tutors