

2015

# Physics 141 Mechanics Spring 2015

Keiko Kircher

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# Spring 2015 Physics 141 Syllabus

Instructor: Dr. Keiko Kircher (first name pronounced as "Cake-o")  
Please call me with my first name or use "Dr." if you want to be polite (though there is no need). Please avoid "Miss," "Mrs.," and "Ms." (and "Mr.") at all cost!

Office: L240

E-mail address: keikoino@gmail.com (strongly preferred),  
kkircher@parkland.edu

Messages to Parkland address from your email address other than Parkland address sometimes get considered spam for some reason, so it is safest to send all email messages to my gmail address.

Text: Fundamentals of Physics, 10th edition, extended, by Halliday, Resnick and Walker. Other editions are allowed, but you will have to find the correct homework problems yourself. Also, there is no guarantee that it is allowed in 142 and 143 (if it's not taught by me).

Office hours: M 10:00am-11:am at L240 and W 12:50pm-1:50pm at M124 (our classroom)

Prerequisite: Calculus 1, or equivalent.

Materials: You will need a calculator that can do algebraic and trig functions, as well as statistical functions. A TI calculator would be preferred.

Content: This course deals with motion and its causes. The 'motion' part is called kinematics and is described using concepts such as velocity and

acceleration. The 'causes' part is called dynamics and introduces concepts such as force, momentum and torque.

<i>Week</i>	<i>Chapter</i>	<i>Topic</i>
1	1,2	<i>Intro</i>
2	2	<i>One – Dimensional Motion</i>
3	3,4	<i>2D Motion</i>
4	3,4	<i>More 2D Motion, exam1 (Friday)</i>
5	5	<i>Newton's Laws</i>
6	5,6	<i>More Newton's Laws</i>
7	6,7	<i>Force, Work, Kinetic Energy</i>
8	7,8	<i>Energy Conservation, exam 2 (Friday)</i>
9	9	<i>Collisions</i>
10	10	<i>Rotation</i>
11	***	<i>Spring break</i>
12	11	<i>Torque, exam 3 (Friday)</i>
13	12	<i>Equilibrium</i>
14	12,14	<i>Mechanics of Solids and Fluids</i>
15	15	<i>Gravitation</i>
16	13	<i>Oscillations, exam 4 (Friday)</i>
17	***	<i>review</i>

#### Lectures, Quizzes, and discussions

We will have a lecture every class period. During a normal week, the second half of the class period on Monday will be used for a discussion, and the second half of the class period on Friday will be used for a quiz. Maximum points for both discussion and quiz grades will be 20. One lowest score in quiz and one lowest score in discssion will be dropped.

#### Quiz

You will take a quiz every Friday except on exam weeks. After every lecture, a reading assignment will be assigned. You are to do sample problems in the book about what we cover each day. Reading assignment will not be graded, but it is strongly recommended that you do them since one of those sample problems will be closely related to the quiz you take each week.

### Homework

Homework is due every Wednesday. Homework will be posted on cobra (no hard copy will be provided). It is not required for you to print out the problem, but you need to turn in your work on a sheet of paper. The homework will be graded out of 20 points, and the lowest grade will be dropped.

### Laboratory

You have registered for a lab section that meets for a 3-hour block of time each Tuesdays or Thursdays. Each week there will be a handout distributed at the start of the lab session that will outline your experiment/activities. During the first week of class and last week of class, we will be instituting an assessment test during the lab session. We will keep lab sections at no more than 4 persons each. It is important that you arrive on time to begin your lab session. The door will be closing 10 minutes after the hour. Lab reports must be handed in before you leave the lab.

**Data that you include must be legitimate data collected during the lab session. Lab reports from previous semesters will not be allowed into the lab rooms.**

**Lab reports which are copied in full or in part will be considered cheating and may result in a failing grade for the course.**

<i>Week</i>	<i>Laboratory</i>
1	<i>Assessment Pre – Test</i>
2	<i>Free – Fall</i>
3	<i>Projectile Motion</i>
4	<i>Exam Review/Lab Assessment</i>
5	<i>Static Equilibrium</i>
6	<i>Centripetal Force</i>
7	<i>To be announced</i>
8	<i>Exam Review/Lab Assessment</i>
9	<i>Work and Energy</i>
10	<i>Two – Dimensional Collisions</i>
11	<i>Spring break</i>
12	<i>Exam Review/Lab Assessment</i>
13	<i>Equilibrium of Rigid Bodies</i>
14	<i>Density and Buoyancy</i>
15	<i>Torsion Pendulum</i>
16	<i>Exam Review/Lab Assessment</i>
17	<i>Assessment Post – Test</i>

### Exams

There are four hour-long exams. If you need to take it early, please let me know by e-mail. There will be no make-up exams after the exams are offered. The lowest hour-exam score will be dropped. There will be no make-up final exam. Final exam will be offered in M124 (our classroom), and it is on May 11th (M) at 11am-1pm for the 11am section, and on May 13th (W) at 11am-1pm for the noon section.

### Policy for late and missed assignments

**I do not accept any late assignments under any circumstances.**

If you are too sick to come to the class to turn in your assignments, please e-mail me to keikoino@gmail.com BEFORE the class starts. If you do so, I will give you an excused grade (your average score), but you will NOT be able to turn it in late or take quizzes and exams late. If your e-mail does not get to me before the class, your score will be zero. If you are too sick to even e-mail me before the class, you need to give me a doctor's note in order to get an excused grade. Please give it to me as soon as you can. Again,

what you get when you are sick is an excused grade, NOT a privilege to take a make-up quiz or to turn in your homework late. You may turn in your assignment through emails ONLY if you already have a good reason to get an excused grade but still want to turn in your work. You are NOT allowed to turn in assignments through emails for missing the class by sleeping in (and due to other reasons that have to do with your laziness).

#### Extra credit policy

I do not give any extra credit to any students for mercy or for any extra work (though I may give everyone an opportunity to get some for other reasons). Please don't try to get any extra credit at the end of the semester by making up for your missed assignments and doing extra research work, or by nagging. I will not allow such things under any circumstances. Instead, make sure you don't miss a significant number of assignments.

#### Grades

The grades are compounded in the following way:

Homework 10%

Discussions 10 %

Quizzes 15%

4 one-hour tests 30%

2-hour final 20%

Labs 15%

**You must earn 60% or higher on the laboratory part of the course to receive a passing grade for the course.** Even if you get 100% on everything else, if your lab grade is less than 60%, you will fail this course.

Letter grades will be assigned as follows: A - 90%, B - 80%, C - 70%, D - 60%. If I see a need to curve, I might do so.

#### Disability

If you believe you have a disability for which you may need an academic accommodation (e.g. an alternate testing environment, use of assistive technology or other classroom assistance), please contact: Cathy Robinson, Room U-260, 217-353-2082, [crobinson@parkland.edu](mailto:crobinson@parkland.edu)

#### Center for Academic Success

If you find yourself needing assistance of any kind to complete assignments,

stay on top of readings, study for tests, or just to stay in school, please contact one of the following staff at the Center for Academic Success:

Sarah Lytel

X 148

353-2338

slytel@parkland.edu

You may also email the CAS at [CenterForAcademicSuccess@parkland.edu](mailto:CenterForAcademicSuccess@parkland.edu).

Academic Honesty

I have found there to be an increase in the frequency of cheating incidents in recent years. The Student Policies/Procedures Manual

([www.parkland.edu/studentpolicy/honesty](http://www.parkland.edu/studentpolicy/honesty)) defines cheating, fabrication, and plagiarism. Consequences can carry the penalty of a failing grade for the course and possibly suspension from the course.

Be mindful of a few ground rules regarding test-taking (quizzes will be collaborative efforts and do not apply here). Tests are closed-book and the following things would be considered cheating:

” exchange of materials of any kind (calculators, pencils, pens, information, anything) ” any talking ” looking at someone else’s work

Core Values

I believe strongly in the Core Values espoused by Parkland College:

Honesty and Integrity, Fairness and Just Treatment, Responsibility, Multiculturalism, Education, and Public Trust. Essentially, these values set guidelines for how we should treat one another. Failure to be respectful of one another or to maintain ethical behavior will not be tolerated.

Drops/Withdrawals

On the ten-day roster, I am required to assess your attendance. If you have not attended regularly to that point, you will be dropped with no refund of tuition or fees. After the ten-day roster, you should not plan on an instructor withdrawal if you want to withdraw from the course. You are ultimately responsible for your own withdrawal by the withdrawal date. Non-attendance after the ten-day roster will result in an F if you don’t withdraw yourself.