

Syllabus

COLLEGE PHYSICS 123x Fall 2022

4 credits

Online asynchronous course with weekly assignments (quizzes, homework and labs)

Instructor: Dr. Michael M. Hull

Office: In the Physics Department: Rm 120 REIC. Tel. 907-474-6106 Tel. 474-7339 (Physics office)

Email: mmhull2@alaska.edu

Office Hours: Physics Dept. (Rm. 120): TBA (ONLINE via Zoom)

Additional time TBA; (in addition homework help can be obtained in room REIC 122
(schedule is here:

<https://docs.google.com/document/d/1JcZiFJtw25rkt6c2sNLMD64v8JuiGB57nvw27H64K-E/edit?usp=sharing>)

Lab TA: Keshab Pokharel

Office: RM 128 REIC

Email: krpokharel@alaska.edu

TA office hours and homework help session times are listed here:

<https://docs.google.com/document/d/1zyLwceA8R8JTE0V1hh17duRu2rjSwqvvCy3AXqIUjky/edit?usp=sharing>

Weekly Homework Help Sessions: TBA – We expect to hold Online Help Sessions via Zoom. On campus, you can drop by my office and/or make an appointment. The Physics Department also holds Homework help sessions in the Physics conference room (REIC 122) (schedule is here:

<https://docs.google.com/document/d/1JcZiFJtw25rkt6c2sNLMD64v8JuiGB57nvw27H64K-E/edit?usp=sharing>)

Web Connection: UAF Canvas

Homework: Online MyLab & Mastering (MLM) access (www.pearsonmylabandmastering.com)

COURSE SPECIFICS:

Prerequisites: High school algebra, trigonometry and geometry, placement in ENGL F111x or higher, placement in DEVM F105 or higher, or permission of the instructor (me).

Note: The “Math and Graphing Prep” Lab is a very good indicator on your math preparation.

Course Content:

Physics 123 is a very fast paced course which will cover chapters 1-15 in the text. Topics covered are: Motion and Kinematics in 1 and 2 dim. (chap 1-3), Newton’s Laws and Applications (chap. 4), Circular Motion and Gravity (chap. 5), Work and Energy (chap. 6), Momentum: Linear and Rotational (chap. 7 &8), Statics (chap. 9), Fluids (chap. 10), Waves and Sound (chap. 11 &12) and Basic Thermodynamics (chap. 13-15). This course emphasizes problem solving.

Materials Needed:

Required Text: *Physics, Principles with Applications*, 7th edition, D. Giancoli. Pearson/Prentice Hall Publishers, 2014 (Hard copy: ISBN 9780321625922) e-text version can be purchased through the Portal via Canvas (if you purchase the electronic version of the text a hard copy can also be purchased for \$50)

MLM access (www.pearsonmylabandmastering.com) (From Canvas, click “MyLab and Mastering” and then “Mastering Assignments”)

Note: you will also need an access code – purchased from Portal via Canvas

Laboratory Kit (purchased directly from Science Interactive, see the lab course on Canvas)

Calculators: Calculators should not be necessary in exams; however, **you will need a calculator for homework**. A basic, simple scientific calculator with trigonometric, exponential, and logarithmic functions is all that you need but buy a fancy one if you want – just learn how to use it!

Homework: The homework is web-based and accessed through MLM (see above for URL) Homework will be due once a week on Friday (at 11:59PM) Assignments will average roughly 10 problems (13 homework sets total). Solutions will be posted on (www.pearsonmylabandmastering.com) shortly after the due date, consequently **NO LATE HOMEWORK WILL BE ACCEPTED** except in very special circumstances. Homework scores are available on pearsonmylabandmastering.com after you complete your assignment.

Note: the Problems in pearsonmylabandmastering.com are the same as in the text, except for number changes. Therefore, I strongly encourage you to work out the homework on paper, then go to the website, and plug in the numbers given and enter your answer. You will be allowed 5 chances. (Keep your hard-copies to study from.) Working in study groups is encouraged but the work you submit must be your own.

Quizzes: There will be approximately 7 online quizzes of roughly 20 min. in length given every other Friday. These will give you timed problem solving skill, and familiarize you with the type of questions I ask and my testing style.

Exams: All exams are closed book and will be proctored online via Zoom (however, an 8 1/2" by 11" formula sheet or sheets will be provided). Calculators will be allowed in exams but will probably not be needed. Exams will include mostly problems with some short answer. They will cover concepts and examples from the text, lecture material, homework problems, recitation problems and laboratory exercises. Solutions to exams will be posted online, or come and see me.

Exam Dates:

MidTerm Exam 1: 7 October (covering Chapters 1-5 tentatively)

MidTerm Exam 2: 4 November (covering Chapters 6-11 tentatively)

Final Exam: 14 December (Two hours+: Roughly 1/2 covering chapters 12-15 and the rest covering chapters 1-11)

Laboratory: There is a lab associated with this course. You will need to purchase the lab kit directly from Science Interactive. The Lab TA will be available to guide you in performing the laboratory kit experiments. **ALL LABS MUST BE COMPLETED TO GET A PASSING GRADE FOR THIS COURSE (12 total).**

11 December is the last day lab reports will be accepted and graded!

Grading:

Grades given will be on a five step A-F scale (with + /- grades assigned if appropriate) The final, cumulative scores will be curved and final grades assigned on that bases, however, a final percentage score of 90% or above will an be at least an A-).

Midterm Exam 1	15%
Midterm Exam 2	15%
Quizzes (7)	15%
Final Exam	25%
Homework (13)	15%
Lab (12)	15%
Total	100%

Holidays: Monday Sept. 5 (Labor Day)

Nov. 23-27 (Thanksgiving)

Special Needs: The office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. We work with the Office of Disabilities Services (203 WHIT, to 474-7043) to provide reasonable accommodation to students with disabilities.

Plagiarism and Cheating: Plagiarism and cheating are matters of serious concern for students and academic institutions. I take it seriously as well. Quizzes and Exams are to be your work ONLY! with no help from others or online resources. The UAF Honor Code (Student Code of Conduct) defines the academic standards expected at UAF and is adhered to in this class as well.

Complaints and concerns: I encourage you to talk to me about concerns you have with the class etc., however, if the situation warrants, you can contact the Physics Department Chairman, Dr. Martin Truffer at mtruffer2@alaska.edu or 474-5359.

Last Day to Drop this Class: 9 September

Last Day to Withdraw from this Class: 4 November

11 December is the last day lab reports will be accepted and graded!