

	Topic	My Notes	Collected
M: 1-13	Vectors	Chapter 1	
W: 1-15	Vectors	Chapter 1	
F: 1-17	Vectors	Chapter 1	
M: 1-20	Position, Velocity, Acceleration	Chapter 2	
W: 1-22	Projectile Motion	Chapter 2	
F: 1-24	Projectile Motion	Chapter 2	
M: 1-27	Newton's Laws	Chapter 3	
W: 1-29	Coordinates and relative motion, inertial frames and Newton's Laws	Chapter 3	
F: 1-31	Circular motion	Chapter 3	
M: 2-3	Further examples		Mission 1
W: 2-5	Test 1		Practice Prob. I
F: 2-7	Examples of Newton's Laws	Chapter 4	
M: 2-10	Examples of Newton's Laws	Chapter 4	
W: 2-12	Examples of Newton's Laws	Chapter 4	
F: 2-14	Multivariate Calculus & The Work Energy Theorem	Chapter 5	
M: 2-17	Conservative Forces	Chapter 5	
W: 2-19	Potential Energy, Calculus-based work examples, Energy Analysis	Chapter 5	
F: 2-21	Examples of Energy Analysis	Chapter 5	
M: 2-24	Examples of Energy Analysis	Chapter 5	
W: 2-26	Examples of Energy Analysis	Chapter 5	
F: 2-28	Further examples		Mission 2
M: 3-3	Test 2		Practice Prob. II
W: 3-5	Momentum, Impulse, Center of Mass	Chapter 6	
F: 3-7	Conservation of Momentum	Chapter 6	
	SPRING BREAK (a.k.a. "the holidays", 3-10 to 3-14)		
M: 3-17	Examples of Collisions	Chapter 6	
W: 3-19	Examples of Collisions	Chapter 6	
F: 3-21	Examples of Collisions	Chapter 6	
M: 3-24	Rotational Kinematics	Chapter 7	
W: 3-26	Assessment Day		
F: 3-28	Rotation of Rigid Body, Moments of Inertia, Rolling without Slipping	Chapter 7	
M: 3-31	Torque and Rotational Dynamics, Analogy with Linear Physics	Chapter 7	
W: 4-2	Further Examples of Rotational Dynamics	Chapter 7	
F: 4-4	Torque as Vector, Angular Momentum	Chapter 7	
M: 4-7	Conservation of Angular Momentum	Chapter 7	
W: 4-9	Newton's Universal Law of Gravitation, naive version of Kepler's Laws	TBA	
F: 4-11	Bound Orbits and Energy Analysis	TBA	
M: 4-14	Motion of Satellites	TBA	
W: 4-16	Further examples		Mission 3
F: 4-18	Test 3		Practice Prob. III
M: 4-21	Easter Monday		
W: 4-23	Special Relativity and General Relativity	TBA	
F: 4-25	Cosmology and Modern Physics	TBA	
M: 4-28	Discussion of Modern Physics	TBA	
W: 4-30	Reading Day		
M: 5-5	Final Exam Monday May 5, from 1-3pm		

- Test 1=150pts, Test 2=150pts, Test 3=150pts
Missions (150pts) / Labs (150pts) / Final = 150pts. / Practice Problems 90pts / 10pts Participation
- I don't require a textbook, but I recommend Young and Freedman's text. Any old edition is worth reading and it is inexpensive. I think the global edition was like \$20 for example. That has tons of practice problems beyond what I cover. <https://www.amazon.com/University-Physics-Modern-Global/dp/1292100311> (I see a copy for about \$10 used)
- My Lecture Notes serve as the required text, there you will find notation defined and basic examples. They're currently unfinished, so I may also supplement with handwritten pdfs at times. Many things can be found at www.supermath.info/ <http://www.supermath.info/PhysicsI.html>
- The required homework is given as "Missions" there are three of these which are shared as pdfs in Canvas. I'll post them on my website as well sometime soon.
- Practice Problems are not graded for accuracy, I simply look over your work during each Test and give you up to 30pts if it looks like there is a good faith effort to solve most of the Practice Problems. These problems will be announced as the semester unfolds. My plan is to collect the Practice Problems at the start of each Test and return it before the end of class.
- If you do not turn in Mission X then I use your Test X score divided by 3 for your Mission X score.
- I have some handwritten notes for Physics 231 posted at the course website which is linked at my personal website of www.supermath.info (I do not post these resources in Canvas) . I am also typing new lecture notes which are incomplete as I write this planner. If all goes as planned I will post updates to the typed notes as the term progresses.
- You are allowed one 3"x5" card with writing only on two sides for Test 1, 2, 3 and the Final.
- No cell phones or similar devices may be out during the exam
- You must be enrolled in a lab section. I will use your lab grade to determine your Final Grade in the course, I don't plan to publish individual lab grades in the gradebook for this course. At the end of the Semester I'll put your lab grade into a column.
- You can use a graphing calculator (but only in physics, I would not allow it in any other course I teach)
- You can work together on the homework. However, remember, the purpose of the homework is actually not for you to earn points. The real purpose for homework is for you to learn the concepts of physics and to acquire the mathematical skill requisite to solve university physics problems. Notice, "university" means calculus-based. We use calculus and vectors in this course. If you are rusty on math, then it would be wise to drop this course and finish calculus III before you attempt this course. We use a lot of algebra, trigonometry, basic calculus and we learn new vectors techniques and calculus techniques at a much faster pace than is typical of the calculus course.
- I am here to help. I have office hours where you can ask me about problems you have **already attempted**. Please do not plan to work problems in my office, you are welcome to ask questions, but, it is better if you study somewhere else. To summarize: office hours are for questions.