

	Topic	Due
M: 1-15	Vectors	
W: 1-17	Vectors	
F: 1-19	Vectors	
M: 1-22	Position, Velocity, Acceleration	
W: 1-24	Projectile Motion	
F: 1-26	Projectile Motion	
M: 1-29	Newton's Laws	
W: 1-31	Coordinates and relative motion, inertial frames and Newton's Laws	
F: 2-2	Circular motion	
M: 2-5	Further examples	Mission 1
W: 2-7	Test 1	
F: 2-9	Examples of Newton's Laws	
M: 2-12	Examples of Newton's Laws	
W: 2-14	Examples of Newton's Laws	
F: 2-16	Multivariate Calculus & The Work Energy Theorem	
M: 2-19	Conservative Forces	
W: 2-21	Potential Energy, Calculus-based work examples, Energy Analysis	
F: 2-23	Examples of Energy Analysis	
M: 2-26	Examples of Energy Analysis	
W: 2-28	Examples of Energy Analysis	
F: 3-1	Further examples	Mission 2
M: 3-4	Test 2	
W: 3-6	Momentum, Impulse, Center of Mass	
F: 3-8	Conservation of Momentum	
	SPRING BREAK (a.k.a. "the holidays", 3-11 to 3-15)	
M: 3-18	Examples of Collisions	
W: 3-20	Examples of Collisions	
F: 3-22	Examples of Collisions	
M: 3-25	Rotational Kinematics	
W: 3-27	Assessment Day	
F: 3-29	Rotation of Rigid Body, Moments of Inertia, Rolling without Slipping	
M: 4-1	Easter Monday	
W: 4-3	Torque and Rotational Dynamics, Analogy with Linear Physics	
F: 4-5	Further Examples of Rotational Dynamics	
M: 4-8	Torque as Vector, Angular Momentum	
W: 4-10	Conservation of Angular Momentum	
F: 4-12	Newton's Universal Law of Gravitation, naive version of Kepler's Laws	
M: 4-15	Bound Orbits and Energy Analysis	
W: 4-17	Motion of Satellites	
F: 4-19	Further examples	Mission 3
M: 4-22	Test 3	
W: 4-24	Special Relativity and General Relativity	
F: 4-26	Cosmology and Modern Physics	
M: 4-29	Discussion of Modern Physics	
W: 5-1	Reading Day	
	Final Exam, Friday May 3, 3:30-5:30pm in usual room.	

- Test 1=150pts, Test 2=150pts, Test 3=150pts  
Missions (150pts) / Mastering Physics 50pts / Labs (150pts) / Final = 200pts.
- The required homework is given as “Missions” there are three of these which are shared as pdfs in Canvas.
- 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](http://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.