Course Overview
For science and engineering majors. Covers vector kinematics, Newtonian mechanics, gravitation, rotational motion, oscillations. This is an active-learning course in which students participate in class through their wireless devices and in small group work with cooperative problem-solving. Prerequisite: MATH 1337.

Instructor Biography
Prof. Dalley has been teaching physics courses at SMU from non-science majors to graduate students since 2006. In 2013, Prof. Dalley received both an Outstanding Professor Rotunda Award and the Provost's Teaching Recognition Award. At SMU he also directs science outreach programs and professional development courses for high-school physics teachers.

Benefits of taking this course
- Quickly acquire UC tags and satisfy your major's requirements
- Retake to improve your grade
- Gain transferable skills in problem solving
- Take advantage of May term's small class sizes

UC "tags" and Student Learning Outcomes
Together with PHYS 1105 lab course, satisfies a Level I Pure & Applied Science Pillar, or a Science and Engineering Breadth requiremnent (UC16), and a Quantitative Reasoning Proficiency & Experience.

Learning Outcomes

1) demonstrate basic facility with the methods of scientific inquiry

and problem-solving

2) explain how the concepts and findings of physics shape our world

3) develop quantitative models as related to the course subject matter

4) apply symbolic systems of representation

5) formulate structured and logical arguments

Class Meeting: 9:30 a.m. – 11:50 a.m.,1:00 – 2:30 p.m.
                Daily Routine: 9:30 - 9:55 Quiz; 10-10:50, 11-11:50, 1-1:50 interactive
                        lectures; 2 - 2:30 Co-op problem solving

Instructor: S. Dalley, Room 207 Fondren Science, sdalley@smu.edu
Office Hours: 3:00 – 6:00 pm each day

Text: **Fundamentals of Physics, Vol 1**, 10th Edition (Wiley), by David Halliday, Robert
        Resnick, Jearl Walker ISBN 9781118441497 - eBook & access code for WileyPlus

Website: http://www.physics.smu.edu/sdalley/1303_M17/1303home.htm

Date	Class	Chapters
before course	**Math pre-requisites: Math Appendix - Geometry, Quadratic, Trig Funcs, Pythagoras, Derivatives & integral 1-9; Vectors Chap 3.1 - 3.2**	
	Measurement	**1.1 - 1.3**
Th 5/18	**Straight Line Motion**	**2.1 - 2.6**
Fr 5/19	**Motion in 2D & 3D**	**4.1 - 4.4, 4.6 – 4.7**
Mo 5/22	**Force and Motion**	**5.1-5.3, 6.1-6.2**
	Force and Motion	**(4.5) 6.3**
Tu 5/23	**Kinetic Energy & Work**	**(3.3) 7.1 - 7.6**
	Potential and Conserved Energy	**8.1 - 8.5**
We 5/24	**Center of Mass of systems**	**9.1 - 9.2**
Th 5/25	**Linear Momentum**	**9.3 - 9.8**
Fri 5/26	**Rotational Motion**	**10.1 -10.7**
	Rolling & Angular Momentum	**(3.3) 11.1-11.8**
Tu 5/30	**Equilibrium**	**12.1-12.2**
We 5/31	**Gravitation**	**13.1 - 13.7**
Th 6/1	**Oscillations**	**15.1- 15.2, 15.4-15.6**
Fr 6/2	**Review & FINAL EXAM**	

COURSE POLICIES

- The course homepage contains all information you will need (bookmark it now): http://www.physics.smu.edu/sdalley/1303_M17/1303home.htm
- You will need to bring a device capable of web access or text messaging to participate in classes. You will also separately need a simple scientific calculator.
- I will use your official SMU e-mail address to communicate with you – please check it!

- Academic Dishonesty will result in a course F grade and filing with the Dean of Student Life. Phones and computers must be turned off and put away during graded in-class assessments. If you need to take or make an emergency call, please leave the room.

ASSESSMENT

- 32 Pre-Class Surveys, **30%** of total grade
  - Lowest 2 surveys dropped, late surveys not accepted

- 10 Quizzes, **27%** of total grade
  - Lowest quiz score dropped, no make-up quizzes

  10 Corrected Quizzes, **9%** of total grade
  - Lowest corrected quiz score dropped, late corrections not accepted, original quiz score counts for corrected quiz if no correction submitted.

- Final Exam **34%** of total grade

  Absences for any reason will count toward drops

Grade Boundaries

A > 90% > A - > 85% > B + > 80% > B >75% > B - >70% > C+ > 65% > C > 60% > D > 50% > F.

Scores are not rounded up to the next grade boundary. Requests to increase your grade for moral reasons, such as `I think I deserve it' or `I attended all the classes', etc., will not be entertained.

PRE-CLASS SURVEYS

You are required to spend time **_before_** class preparing for discussion of the topics as indicated on the syllabus. I recommend you consult the relevant online sections of the textbook in WILEYPLUS. In addition, you can view the *Video* and *Animated Illustrations*, *Video Mini-lectures*, and *Demonstration Videos* according to your taste. Multiple-choice Surveys are assigned, as shown in the syllabus, which must be submitted for credit by 9 a.m. on class day at www.pollEV.com under username **dalleyphysics** (you will then need to login yourself).

Recommended Time Burden = 2 hours per class

HOMEWORK

Suggested homework problems are shown on the syllabus. These should be used to practice in preparation for in-class quizzes. If you initially find the homework problems too difficult, try some of the relevant problems in ORION on WILEYPLUS to build your proficiency. You can also consult some of the *Video Sample Problems*.

Recommended Time Burden = 2 hours per quiz

QUIZZES

At the beginning of each class day there is a 25-min in-class quiz on the material from the previous class day. The suggested homework problems are minimal preparation for the quiz. Most of the credit in the quizzes is for clear working. You may use only the standard orange formula sheet provided and your own calculator. All data are provided in the questions.

You will receive your graded quiz back and have the opportunity to correct it in your own time for credit, provided it is submitted within one day of the quiz being returned. Correction sheets must be appended to your original quiz**.** The original quiz score will count for the corrected-quiz credit if no correction is submitted.

EXAMS

The final exam is 3 hours multiple choice. 2/3 of the credit will be for problems similar to the quiz/homework problems. 1/3 of the credit will be for conceptual questions *very* similar to those done in class. Credit for working is not given. You may use only the standard orange formula sheet provided and your own calculator. All data are provided in the questions.

ACCOMODATIONS

Disability Accommodations: Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit http://www.smu.edu/Provost/ALEC/DASS to begin the process. Once registered, students should then schedule an appointment with the professor as early in the semester as possible, present a DASS Accommodation Letter, and make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.

Religious Observance: Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See University Policy No. 1.9.)

Excused Absences for University Extracurricular Activities: Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)