SAN JOSÉ STATE UNIVERSITY
Department of Mechanical Engineering

ME 101 Dynamics
Fall 2018

Prerequisites: CE 95 or CE 99 and Math 32 (with a grade of C- or better in each)

Credit Units: 3 units

Instructors and Meeting Rooms

Section 1 (41576)	TR 1330-1445	Room ENG 327: Prof. R. Agarwal, Office: E310 D
Section 2 (42875)	TR 1500-1615	Room ENG 327 Prof. R. Agarwal, Office: E310 D
Section 3 (42876)	MW 1330-1445	Room ENG 327 V. Viswanathan
Section 4 (44459)		

5. In the context of B.S. Mechanical Engineering program assessment, this course is intended to help students achieve ABET Student Outcome 3a: "an ability to apply knowledge of mathematics, science, and engineering." For more information on ABET Student Outcomes, please see http://www.abet.org/eac-criteria-2016-2017/.

Student Learning Objectives

Upon successful completion of this course, the student should be able to:

1. Distinguish kinematics and kinetics in dynamics of solids
2. Develop analytical models for a given dynamic situation using particle and rigid body dynamics theories.
3. Characterize a motion to be rectilinear, curvilinear, planar rigid body dynamics.
4. Describe the motion of a particle in terms of kinematics for general curvilinear motion as well as in moving reference frames.
5. Apply Newton's Second Law in solving particle and rigid body dynamics problems.
6. Apply principle of energy and momentum principles in solving problems involving Particles; application of energy method for 2-D rigid bodies in motion.

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Course Schedule Fall 2018

(The weekly schedule is tentative and subject to change)

Homework will be assigned through the McGraw Hill Connect website. Access code must be purchased to use the website.

Lectures: Week of	Topic	Homework Assignment
August 20	Chapter 11.1: Rectilinear Motion of Particles	
August 27	Chapter 11.2: Uniformly Accelerated Motion Chapter 11.2: Motion of Pulleys	
Sept 3 Sep3: NC	Chapter 11.3: Graphical Method	
Sept 10	Chapter 11.4: Curvilinear Motion—Motion of Projectiles Chapter 11.5: Tangential and Normal Coordinates	
Sept 17		

IMPORTANT NOTE: The Final Exam is common to all the sections and is scheduled for December 19, 2018

Important Dates:
August 21: First Day of Instructions
September 3: Labor Day, campus closed
September 10: Last day to add a course
November 12: Veteran Day, campus closed
November 22-23: Thanksgiving Holiday – Campus closed
December 10: Last day of instructions
December 19: Final Exam

NOTE 1: In addition to the midterms and final exam, there would be reading quizzes

NOTE 2: The final exam is common to all sections and will be given on the Final Exam Make-up day: December 19, 2018.

NOTE 3: Extra Help: There are four workshops scheduled to help you learn the fundamental concepts of dynamics and help you with your homework assignments. You can attend any one of the four workshops, and also, get help on-one-one with the tutors by making an appointment.

NOTE 4: You must satisfy the pre-requisites listed above. Submit a hardcopy of the courses that satisfy the requirement. Make sure to highlight the courses.