SAN JOSÉ STATE UNIVERSITY Department of Mechanical Engineering

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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 2D rigid bodies in motion.

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questions are simple and designed to quiz your basic understanding of the material, which will be covered later in the class.

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There are no formal lectures in the class. The goal of the class activities is to discuss and clarify the basic concepts and apply the theory by working on problems individually and in small groups. Also, you get the opportunity to ask the instructor questions and get help on the problems being presented in the class. This session also includes the scheduled Clicker Quizzes and midterm exams.

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You will be assigned two or three problems to be worked on individually. You can get help on this homework or for any other questions by attending one or both of the scheduled Dynamics workshops.

NOTE: The activities described above are intended for you to get familiar with the subject and learn the concepts. They are intentionally designed to encourage you to learn the material without getting discouraged and rew 12 4495f EMC /P <</ d>

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Course Schedule Spring 2020

(The weekly schedule is tentative and subject to change)

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January 23 Introduction

IMPORTANT NOTE: The Final Exam is closed-book, closed-note, and common to all the sections and is scheduled for May 20, 2020

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January 23: First day of instruction February 11: Last day to add a course March 30 – April 3: Spring Recess May 11: Last day of Instructions May 20: Final Exam

NOTE 2: The final exam is common to all sections and will be given on the Final Exam Make-up day: May 20, 2020. <u>You must plan your travel and other commitments accordingly. A make-up exam is allowed</u> only for the university approved excuses. An "I" grade will be assigned to those who do not qualify for the approved excuses and are unable to take the exam as scheduled.

NOTE 3: **EtHp** : There are two workshops (ME 180) scheduled to help you with your both homework assignments and the fundamental concepts of Dynamics. You can attend one or both the workshops, and also, get help on one-on-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. Email attachment is not acceptable.