

SAN JOSE STATE UNIVERSITY  
Mechanical Engineering Department

**ME 154 - Mechanical Engineering Design**

**Fall 2021**

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Instructor:

Class code: 42078 (section 2)

**Final Exam: TBA**

**Course website: [Canvas](#)**

**COURSE OBJECTIVE:**

Introduction to Mechanisms design and analysis. Graphical and analytical synthesis of mechanisms, path, motion, and function generation mechanisms. Complex polar notation and closed loop vector equations to analyze mechanisms. Position, velocity, acceleration and force analyses. Application of statics, dynamics, strength of materials, static failure theories and fatigue failure theory to the design of machine components. Threaded fasteners and the design of bolted joints. The course will include a term project that involves the design and prototype fabrication of a mechanical device. Lecture 4 hours.

**Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practical. Other course structures will have equivalent workload expectations as described in the syllabus.**

**Prerequisites:** ME20, C- or better in ME101 and CE112, CAD knowledge is strongly recommended. **Yoh (h.60(l))- TI**

## **Dropping and Adding**



## Technology Requirements

Students are required to have an electronic device (laptop, desktop or tablet) with a camera and built-in microphone. SJSU has a free equipment loan program available for students: <https://www.sjsu.edu/learnanywhere/equipment/index.php>

Students are responsible for ensuring that they have access to reliable Wi-Fi during tests. If students are unable to have reliable Wi-Fi, they must inform the instructor, as soon as possible or at the latest one week before the test date to determine an alternative. See Learn Anywhere website for current Wi-Fi options on campus.

<https://www.sjsu.edu/learnanywhere/equipment/index.php>

## Zoom Classroom Etiquette

- **Mute Your Microphone:** To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
- **Be Mindful of Background Noise and Distractions:** Find a quiet place to “attend” class, to the greatest extent possible.

Conduct and Ethical Development office. Unauthorized recording may violate university and state law. It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor.

### Technical difficulties

**Internet connection issues:** Canvas autosaves responses a few times per minute as long as there is an internet connection. If your internet connection is lost, Canvas will warn you but allow you to continue working on your exam. A brief loss of internet connection is unlikely to cause you to lose your work. However, a longer loss of connectivity or weak/unstable connection may jeopardize your exam.

**Other technical difficulties:** Immediately email the instructor a current.6 (2 (a)5 (1 de4.6 (.l(o)2 (f)-2 (t)-2.6 (h)12.9 ( sti)8.3 (at)-

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