Welcome to
College of Engineering
San Jose State University
CA Counselor Conference
November 6, 2020
AGENDA

College Updates
*Jinny Rhee, Associate Dean*

Majors and ESSC
*Sarah Gordon, ESSC Director*

MESA and Student Programs
*Mathew Stowe, MEP Director*

Q&A
Why Engineering @ SJSU: Innovation and Silicon Valley
Hands on at Home
College of Engineering Mails
Hundreds of Kits for Instruction

Online/Hybrid Instruction
(Clockwise from left) test kits, machine shop, MakerSpace
New Facilities

New Laboratories

(Clockwise from top): EOS metal 3D printer in Advanced Manufacturing research lab; Virtual Desktop Infrastructure; Bio-microfluidics research lab. Coming soon: Keysight Technologies Mechatronics Lab

New Office Suite

Advisors and peer mentors in the lobby of the new Engineering Student Success Center.
EXCEED
Summer Bridge Program
(2012-2015)
EXCEED 2020 program

EXCEED - Frosh
Prep for Calculus
Virtual Robot Team Project
Engineering Careers
Study Skills Workshops
Advising Support
Campus Resources
Community

EXCEED - Transfer
Advanced Math Applications
Resonance Team Project
Engineering Careers
Study Skills Workshops
Advising Support
Campus Resources
Community

Program Dates: 8/3/20 - 8/7/20; 8/10/20 - 8/14/20
Program Times: 9:00 AM - 3:00 PM, optional evening social events
Office Hours: 12-1 PM every day
Transfer Impaction - Program Specific Content

Check SJSU website or assist.org for the latest info.

Engineering-named programs: 7 courses
- Calculus I, II, III
- Physics I, II
- Chem 1A, 1B
- Biol 10
- Statics or Programming
- Discrete Math

Aviation and Technology: 2 courses
- Calculus I (for STEM or Business)
- Physics I (w Calculus or w/o Calculus)
# Departments and Majors

<table>
<thead>
<tr>
<th>Engineering Area</th>
<th>Bachelor's Degree(s)</th>
<th>Master's Degree(s)</th>
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<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>BS AE, MS AE</td>
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<tr>
<td>Biomedical Engineering</td>
<td>BS BME, MS BME</td>
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<tr>
<td>Chemical and Materials Engineering</td>
<td>BS CHE, BS MatE, MS CHE, MS MatE</td>
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<tr>
<td>Civil and Environmental Engineering</td>
<td>BS CE, MS CE</td>
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<tr>
<td>Computer Engineering</td>
<td>BS CMPE, BS SE, MS CMPE, MS SE</td>
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<tr>
<td>Electrical Engineering</td>
<td>BS EE, MS EE</td>
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<tr>
<td>Industrial and Systems Engineering</td>
<td>BS ISE, MS EM, MS ISE, MS HF</td>
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<td>Interdisciplinary Engineering</td>
<td>BS IE, MSE</td>
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### Aerospace
- Aerodynamics
- Propulsion
- Flight Dynamics
- Structure and Materials

### Civil
- Construction
- Structural
- Transportation
- Geotechnical
- Water Resources/Environmental

### Mechanical
- Fluid Dynamics
- Thermo-dynamics
- Mechanical Design
- Mechatronics
Electrical

- Power Generation
- Communication Systems
- LSI
- Electronics

Computer or Software

- Hardware Design
- Software Design
- Networks
- Databases
Industrial & Systems

- Enterprise Operations
- Safety/Ergonomics
- Quality Control

Interdisciplinary (Fall 2021)

- Career-related Engineering electives
- Customized Technology Electives
- Minor in Non-engineering program
Aviation

- Four options
  - Professional Flight
  - Flight Operations
  - Aviation Management
  - Maintenance Management

Industrial Technology

- Two concentrations:
  - Manufacturing Systems
    - Computer integrated manufacturing
    - Green operations and sustainable manufacturing
  - Computer Network System Management
    - Internet of Things (IoT)
    - Network Theory
    - Wireless communication
    - Cyber and network security
Advising Structure of SJSU: The Engineering Student Success Center (ESSC)

Advising Structures on Campus

- Advising and Academic Retention Services (AARS) - overall advising unit on campus, advising undeclared students and pre-nursing students, petitions, and Gen Ed
- College Success Centers - each college has a Success Center to help advising students enrolled in specific majors

Engineering Student Success Center (ESSC)

- Staff: Director, Professional Full-Time Advisors, Graduate Student Advising Intern, Faculty Guided Pathways Advisors, Graduate Success Advisor, Peer Leaders and Advisors, Liaisons to AARS and the Career Center

Major Advisors

- Students meet with advisors in their department every semester for course planning, career goal setting, and selecting electives
Orientation
- Course planning
- Course registration
- Information for future semester

Guided Pathways
- Assigned faculty advisor
- GE information
- Career advice

Year-Round Support
- Success Workshops
- Change of Major
- Clarification of Policies

Graduation & Beyond
- Graduation Requirements
- Graduate School advising

sjsu.edu/essc
Like our page!

Location: ENG 116
M - F 8:30-12:00 & 1:00-4:30
success-engineering@sjsu.edu
sjsu.edu/essc
Encourage your students to GET INVOLVED!

Student Organizations
Engineering Ambassadors Program (EAP)
MESA Engineering Program (MEP)

SJSU | CHARLES W. DAVIDSON COLLEGE OF ENGINEERING
Engineering Student Organizations

- **Over 60** affiliated student organizations
- Whether your students are looking for:
  - Technical projects
  - Professional development
  - Peer networks
  - Honor societies
Engineering Student Leaders

Support from the College

- Strong Faculty Engagement
- Designated Club Rooms
- Leadership Development
- Funding Opportunities

Why be a student leader?

- Connected to Faculty
- Professional Development
- Strong Network
- Internship Opportunities
- Scholarship Opportunities
Engineering Ambassadors Program (EAP)

Our mission is to inspire future engineers

- Community outreach
- Paid/volunteer positions
- Develop communication skill & leadership skills
Requesting Outreach

Virtual Student Panels
Ambassadors will respond to questions regarding their college experience, their experience in SJSU College of Engineering, and their overall perspective of engineering.
MESA Engineering Program (MEP)

Mission:

Increase the number of high caliber, industry-ready graduates from educationally and/or economically disadvantaged backgrounds completing degrees in Engineering or Computer Science at San José State University.
Benefits of MEP

Community Building
- Social Events
- Virtual Mixers

Advising
- Peer Advisors
- Academic Advisors

Professional Development
- Resume Blasts
- Mock Interviews
- Industry Mixers

*Designated Study Space
- Quiet Room
- Computer/Printing Stations
- Lockers (limited number)
- Fridge & Microwave
Applying to MEP

Who should apply?

Majors: Undergraduate Engineering, Computer Science, Aviation, Industrial Technology

- Students who were in MESA at CC
- First-Generation College Students
- Low Income Background

Application deadlines:

Fall Applications
May 1 - August 30

Spring Applications
Dec 1 - February 8