



**Welcome
to**

College of Engineering

**San Jose State University
CA Counselor Conference
November 6, 2020**



AGENDA

College Updates

Jinny Rhee, Associate Dean

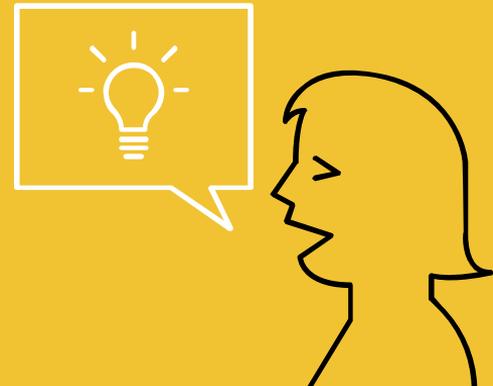
Majors and ESSC

Sarah Gordon, ESSC Director

MESA and Student Programs

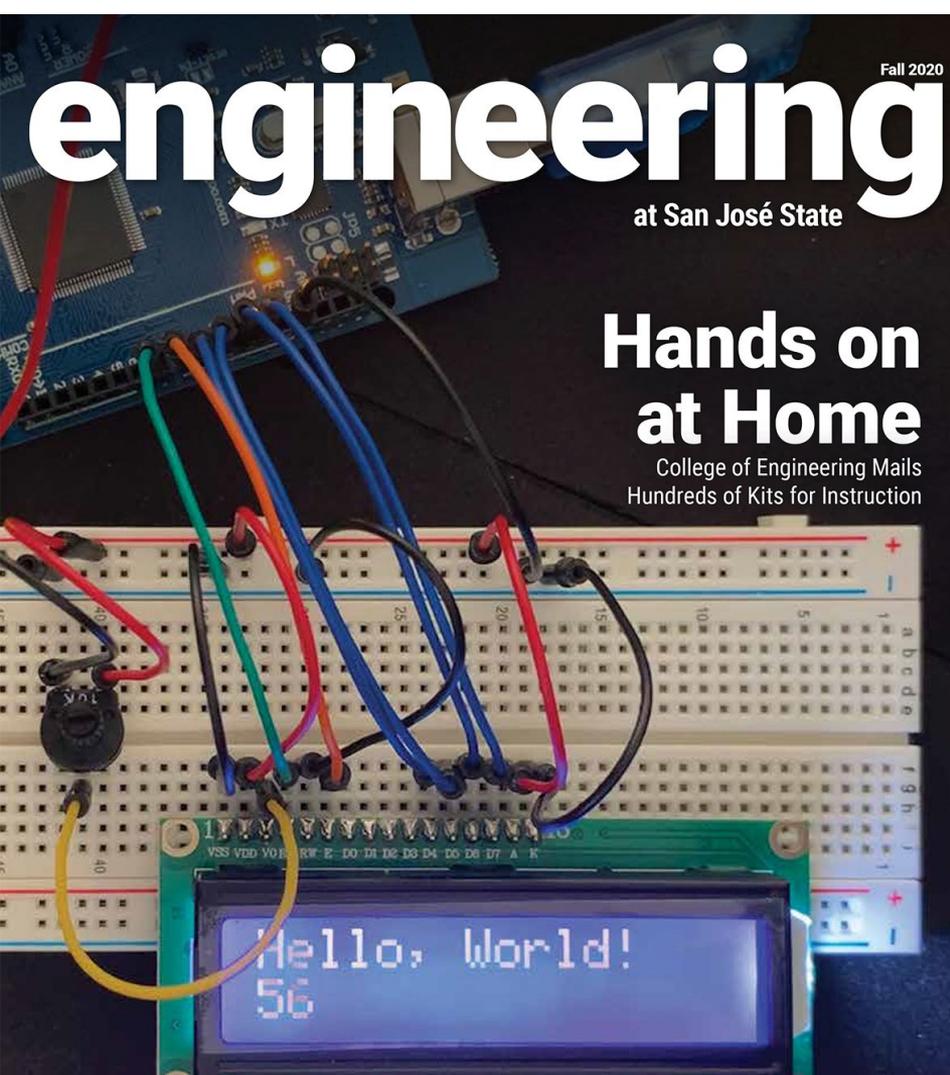
Mathew Stowe, MEP Director

Q&A





Why Engineering @ SJSU: Innovation and Silicon Valley



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.

SVES

Scholarships



EXCEED

Summer Bridge Program

(2012-2015)



EXCEED 2020 program

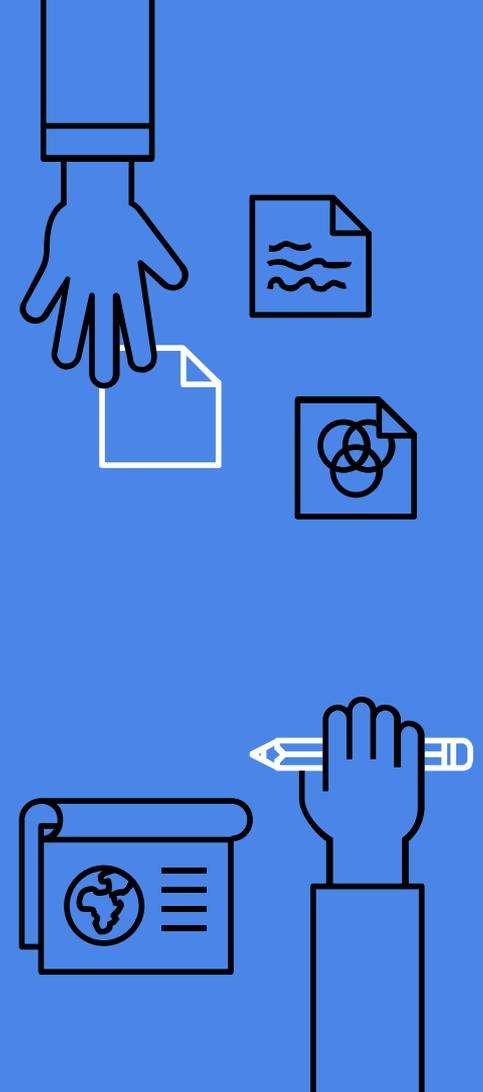
EXCEED - Frosh

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

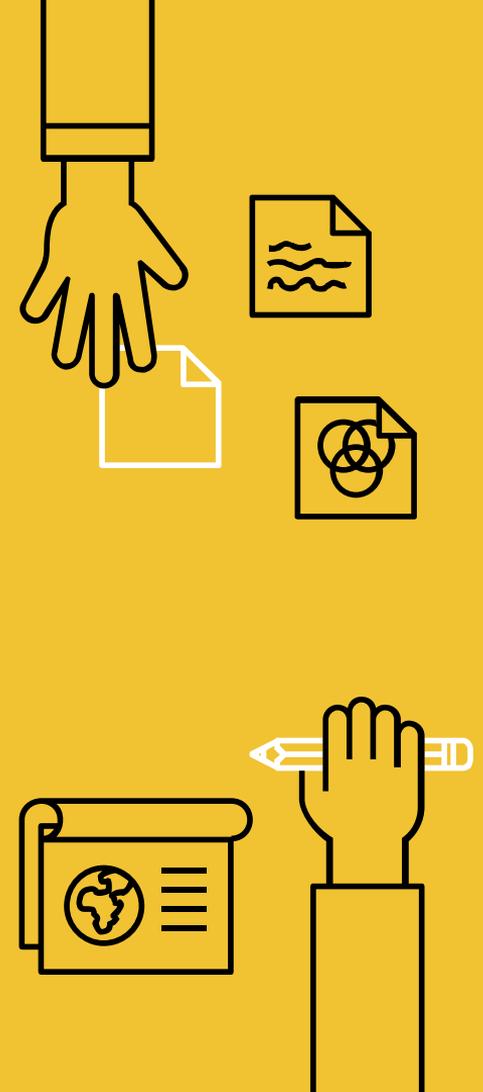
Statics or Programming

Discrete Math

Aviation and Technology: 2 courses

Calculus I (for STEM or Business)

Physics I (w Calculus or w/o Calculus)



An architectural rendering of a modern building interior. The scene shows a long, curved walkway with a polished floor that reflects the surrounding environment. On the left, there is a large, curved wall with a textured, organic appearance. In the background, there are outdoor seating areas with umbrellas and people walking. The overall atmosphere is bright and contemporary. A blue rectangular box is overlaid on the right side of the image, containing white text.

Majors & Advising

Departments and Majors

Biomedical Engineering

BS BME
MS BME

Aerospace Engineering

BS AE
MS AE

Industrial and Systems Engineering

BS ISE, MS EM
MS ISE, MS HF

Electrical Engineering

BS EE
MS EE

Chemical and Materials Engineering

BS CHE, BS MatE
MS CHE, MS MatE

Civil and Environmental Engineering

BS CE
MS CE

Interdisciplinary Engineering

BS IE
MSE

Computer Engineering

BS CMPE, BS SE
MS CMPE, MS SE

Mechanical Engineering

BS ME
MS ME

Aviation and Technology

BS IT-CNSM
BS IT-Man
BS Avia

Aerospace

- Aerodynamics
- Propulsion
- Flight Dynamics
- Structure and Materials

Civil

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

Mechanical

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

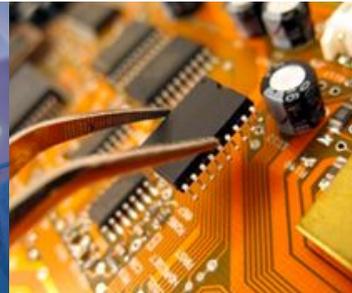


Electrical

- Power Generation
- Communication Systems
- LSI
- Electronics

Computer or Software

- Hardware Design
- Software Design
- Networks
- Databases



Biomedical

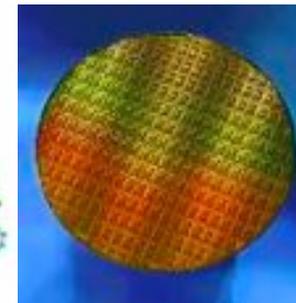
- Biomechanics
- Pharmaceuticals
- Medical Devices

Chemical

- Biochemical
- Polymers Plastics
- Food Processing

Materials

- Semiconductors
- Microelectronics
- Ceramics



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



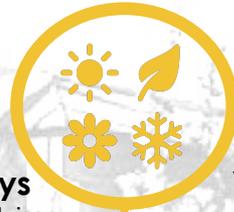
Orientation

- 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

GE planning

Major planning

enrollment help

change of major

grad school planning

graduation

general advising
(i.e. anything)

course planning tools

career advising

OPT/CPT
(intl. students)

resource referrals

mentoring

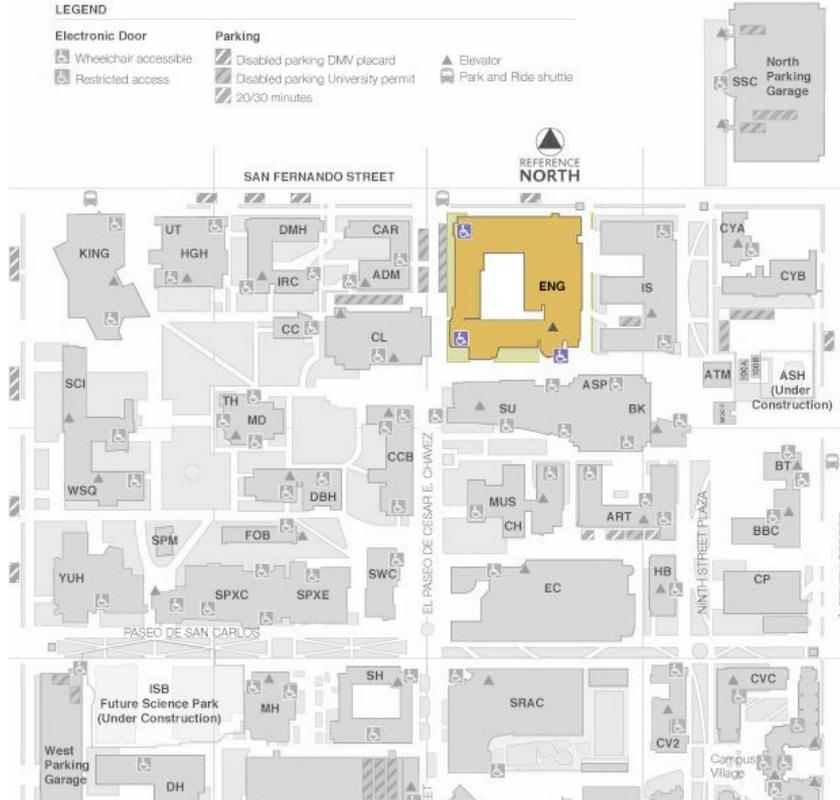
Guided Pathways

success workshops





ENGINEERING STUDENT SUCCESS CENTER



Location: ENG 116
M - F 8:30-12:00 & 1:00-4:30
success-engineering@sjsu.edu
sjsu.edu/essc



Like our
 page!



Encourage your students to GET INVOLVED!



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

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

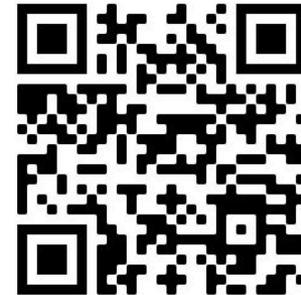


Requesting Outreach



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



ENG 366
sjsu.edu/mep/
MESA.Engineering@sjsu.edu

The background features a complex architectural wireframe of a skyscraper, rendered in a light blue color against a darker blue background. The wireframe shows the structural elements of the building, including columns, beams, and floor slabs. Overlaid on this are various technical drawings, including circular diagrams with crosshairs and lines, and rectangular outlines with dimensions. The overall aesthetic is technical and futuristic.

Q&A