

# MECHANICAL ENGINEERING UNDERGRADUATE ADVISING

*Target Audience:  
Students Planning to Take Senior Design I  
in  
Fall 2020 or Fall 2021*

# Overview

- COVID-19 Crisis
- Curriculum Planning
- Getting the most from your education

# COVID-19 Crisis Resources for Students

- Emergency grants are available for needs such as food, housing, and technology. To apply for assistance, please submit an [emergency grant application form](http://www.calstatela.edu/deanofstudents/student-emergency-grant-application-form) (<http://www.calstatela.edu/deanofstudents/student-emergency-grant-application-form>). If you have questions, please contact the [Office of the Dean of Students](mailto:deanofstudents@calstatela.edu) ([deanofstudents@calstatela.edu](mailto:deanofstudents@calstatela.edu)).
- The Office of the Dean of Students has also compiled a list of [Student Resources](http://www.calstatela.edu/deanofstudents/covid-19-student-resources) (<http://www.calstatela.edu/deanofstudents/covid-19-student-resources>) on campus and in the surrounding community.
- Some private communications companies are also providing free Internet access and other assistance. You can find a list of technology resources under [Internet Access](http://www.calstatela.edu/its/remote-access#internet-access) (<http://www.calstatela.edu/its/remote-access#internet-access>) on the Information Technology Services' webpage for [IT Resources for Remote Access](http://www.calstatela.edu/its/remote-access) (<http://www.calstatela.edu/its/remote-access>).
- You can also find additional resources on our [Health Watch webpage](http://www.calstatela.edu/healthwatch) (<http://www.calstatela.edu/healthwatch>).

*You can also contact the ME Department at [me.ecst@calstatela.edu](mailto:me.ecst@calstatela.edu) and we will do our best to help you during this difficult time.*

# Curriculum Planning

- You should have a plan for when you are planning to take all of your courses
  - *Plan ahead and know your graduation date!*
  - *You must meet all prerequisites and co-requisites*
  - *Senior design is a one-year sequence (Fall-Spring only)*
- Useful resources (<http://www.calstatela.edu/ecst/me/curriculum>)
  - *Curriculum Roadmap*
  - *Curriculum Sheet*
  - *Curriculum Flowchart*
  - *Catalog (select your catalog date)*
- Use Degree Planner! (<http://www.calstatela.edu/degreeplanner>)
- Tips
  - *Don't plan to take more than 2 labs per term*
  - *Take advantage of summer!*

# Know your catalog date and your 3 GPAs

## Current Academic Objective

1 of 1

		Requirement (Catalog) Term
Career:	Undergraduate	Fall Semester 2017
Program:	UGRD Degree Programs	Fall Semester 2018
Plan:	Engineering - Mechanical	Fall Semester 2018

GE Catalog Date

Major Catalog Date

Graduation Status: Not Applied

## Current Academic Summary

Last Term Registered: Summer Session 2020

Academic Standing: Good Standing

Overall GPA:

CSULA GPA:

## MAJOR GRADE POINT AVERAGE [RQ 358/20]

- GPA: 2.000 required actual

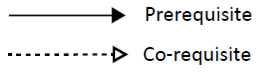
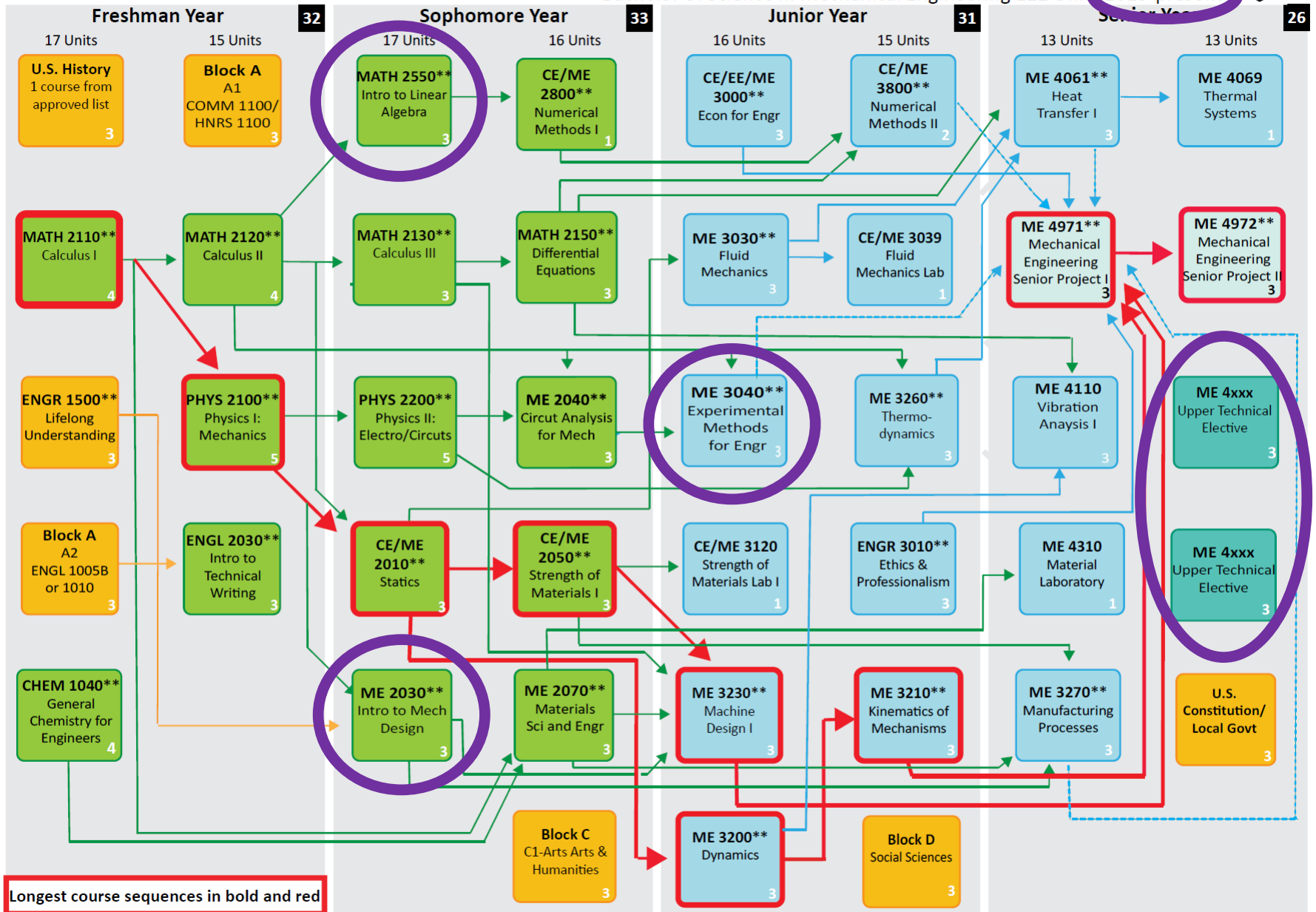
Don't forget about your major GPA! All 3 GPAs (Overall, CSULA, and major must be > 2.0 to graduate)

## FREE ELECTIVES [RQ 10]

# California State University Los Angeles

Department of Mechanical Engineering

Bachelor of Science in Mechanical Engineering 122 Unit **2019-present**



Color Key: General Education Lower Division Upper Division Senior Design Technical Elective \*\* C or better required



**General Education Lower Division Requirements (21 units)**

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**BLOCK A – Basic Subjects**

- A1 - Oral Communication                      COMM 1100 or HNRS 1100 (3)
- A2 - Written Communication                ENGL 1005B or 1010 (3)
- A3 - Critical Thinking and Composition    Fulfilled within Major

**AMERICAN INSITUIONS**

- U.S. History                                      1 course from approved list (3)
- U.S. Constitution / Local Govt            1 course from approved list (3)

**BLOCK C – Arts & Humanities**

- C1- Arts    1 course from approved list (3)
- C2- Humanities                                ENGR 3010 (3)

**BLOCK D – Social Sciences**

- 1 course from approved list (3)
- CE/EE/ME 3000 (3)

**BLOCK E – Lifelong Understanding**

- ENGR 1500\*\* (3) or GE Block E

**Writing Intensive Requirement**

- ME 4971 and ME 4972

**Civic Learning/Community Engagement Requirement**

- ENGR 1500 at lower division
- ME 4971 and ME 4972 at upper division

**Diversity (2 courses, can also meet other GE reqs)**

- Select one race/ethnicity (re)(3)
- Select one diversity (d) or (re) (3)

**BLOCK B – Natural Science and Math met within major**

**Upper Division GE met within the major**

**Major Requirements (101 units)** [A C or better is required for courses with a \*\*]

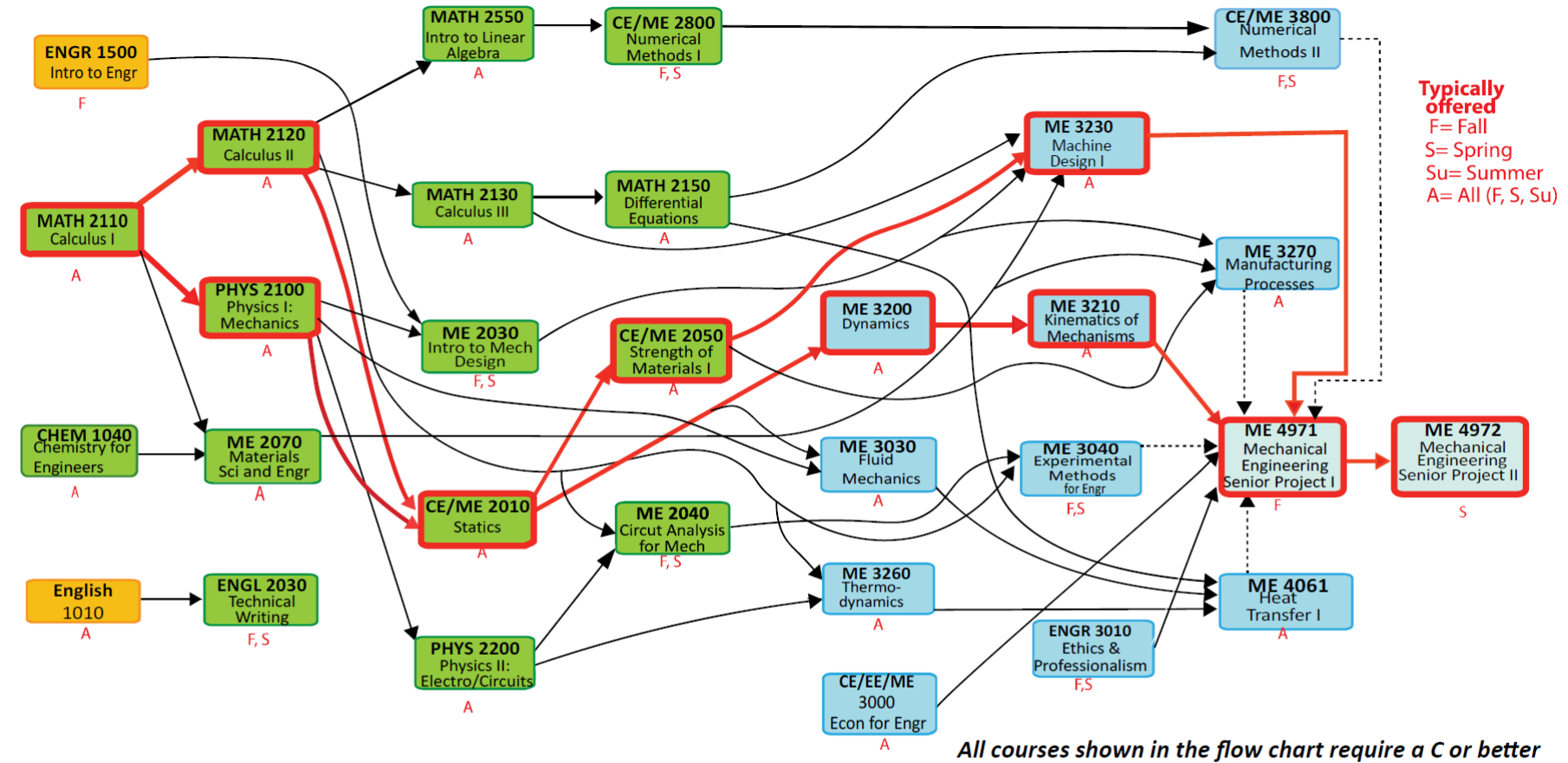
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**Lower Division Major Requirements (50 units)**

- CHEM 1040\*\*            **General Chemistry for Engineers (4)** Prerequisites: Completion of GE Math (B4) or GE Math supported instruction is not required (Math Placement Category I or II). Must be an engineering major.
- CE/ME 2010\*\*        **Statics (3)** Prerequisites: MATH 2120 and PHYS 2100 both with a minimum C grade.
- ME 2030\*\*            **Introduction to Mechanical Design (3)** Prerequisite: ENGR 1500 and PHYS 2100 both with a minimum C grade.
- ME 2040\*\*            **Circuit Analysis for Mechanical Engineers (3)** Prerequisites: Math 2120 and PHYS 2200 with a minimum C grade.
- CE/ME 2050\*\*        **Strength of Materials I (3)** Prerequisites: CE/ME 2010 with a minimum C grade.
- ME 2070\*\*            **Materials Science and Engineering (3)** Prerequisites: CHEM 1040 and MATH 2110 both with a minimum C grade.
- CE/ME 2800\*\*        **Numerical Methods for Engineers I (1)** Prerequisites: MATH 2550 with a minimum C grade.
- MATH 2110\*\*        **Calculus I (4)** Prerequisites: MATH 1040 with a minimum C grade, or MATH 1081 and MATH 1083 both with a minimum C grade, or MATH 1082 and MATH 1083 with both a minimum C grade, or ESM 1082 and MATH 1083 both with a minimum C grade, and with satisfactory score on placement examination. Co-requisite: MATH 2111 with same section number if any of the prereq courses is graded below B-.

# California State University Los Angeles

## Mechanical Engineering Bachelor of Science Degree Requirements (Fall 2019 and later)



**Additional GE**  
 -US History  
 -US Constitution/Local Gov't  
 -COMM 1100/HNRS 1100  
 -Block C1 - Arts  
 -Block D - Social Science  
**GE Overlays**  
 - Take one d/re and one re  
 \*re=race & ethnicity  
 \*d = diversity

**Labs:**  
 Recommended to take 1 or 2 per semester & right after prerequisite or w/co-requisite

ME 2050	→	ME 3120
ME 3030	→	ME 3039
ME 2070	→	ME 4310
ME 4061	→	ME 4069

F, S

**Tips on how to decide when to take courses:**  
 Plan backwards from senior design to make sure you can take prerequisites in a timely fashion. The red letters under each course tell you when it is typically offered and the bolded red paths show the longest course sequences (make sure to prioritize taking those courses).

**Additional major requirements:**  
 ME 4110  
 Vibration Analysis I  
 A  
 &  
 2 ME 4000-level electives

→ Prerequisite  
 → Co-requisite  
**Color Key:** General Education Lower Division Upper Division Senior Design

*Refer to the University Catalog for more detailed information*



# Senior design (ME 4971) prerequisites and co-requisites

- Prerequisites: ME 3000 (Econ), ME 3010 (Ethics), ME 3210 (Kinematics), and ME 3230 (Machine Design)
  - *all with C or better if taken Fall 2017 or after*
- Prerequisites or Co-requisites – may be taken with ME 4971
  - *ME 3040 (Exper Methods), ME 3800 (Num Methods II), ME 3270 (Man Proc), ME 4061 (Heat Transfer I – formerly ME 3060)*

# Financial Aid (Pell Grants) are available for summer!!

- Check out: <http://www.calstatela.edu/financialaid/summer-pell-grant>

## Summer 2018 Cost Worksheet

Input the amount of your Full-Time Spring 2018 or Summer 2018 Pell Grant award from your financial aid package in the blue box. The table below will then reflect in the yellow highlighted column how much you would need to pre-pay in order to enroll in that number of units for Summer 2018. Students receive a maximum of 12 full-time equivalent semesters of Pell eligibility of their bachelor's degree. The last column indicates the amount of lifetime eligibility that would be used.

Input your Full-Time Spring or Summer Pell Award amount here → \$

Summer Units	Summer Charges	Pell Amount	Balance Due	Lifetime Pell Eligibility Used
1	\$ 320	\$ -	\$ 320	None
2	\$ 640	\$ -	\$ 640	None
3	\$ 960	\$ -	\$ 960	None
4	\$ 1,280	\$ -	\$ 1,280	None
5	\$ 1,600	\$ -	\$ 1,600	None
6	\$ 1,920	\$ -	\$ 1,920	1/2 award
7	\$ 2,240	\$ -	\$ 2,240	1/2 award
8	\$ 2,560	\$ -	\$ 2,560	1/2 award
9	\$ 2,880	\$ -	\$ 2,880	3/4 award
10	\$ 3,200	\$ -	\$ 3,200	3/4 award
11	\$ 3,520	\$ -	\$ 3,520	3/4 award
12	\$ 3,840	\$ -	\$ 3,840	Full award

# The following courses will be offered this summer\*\*.

SUBJ	CAT#	Name	Day	Start	End
ME	2010	STATICS	TTR	10:15	12:08
ME	2050	STRENGTH OF MATERIALS I	MW	12:30	14:23
ME	2070	MATERIALS SCI & ENGINEERING	TTR	12:30	14:23
ME	3030	FLUID MECHANICS I	TTR	18:00	19:53
ME	3210	KINEMATICS OF MECHANISM	MW	14:45	16:38
ME	3230	MACHINE DESIGN I	TTR	10:15	12:08
ME	3260	THERMODYNAMICS	MW	10:15	12:08
ME	3270	MANUFACTURING PROCESS	TTR	14:45	16:38
ME	3800	NUMERICAL METHODS II	MW	12:30	14:23
ME	4061	HEAT TRANSFER I	TTR	12:30	14:23
ME	4110	VIBRATION ANALYSIS	MW	18:00	19:53
ME	4300	PROPERTIES & SELECT ENGR MAT	TTR	18:00	19:53

\*\* Due to the COVID-19 situation, these courses will be offered remotely (online).

# Courses not offered in summer

- ME/EE/CE 3010 – Ethics and Professionalism in Engineering
  - *You must have already taken this course or currently be taking it in order to take ME 4971 in the Fall*
- ME 2040 – Circuit Analysis for Mechanical Engineers
  - *If you haven't taken, you can take a similar course at a community college or another university in the summer*
- ME/CE 2800 – Numerical Methods I
  - *You should plan to take before summer or you can take a first course in programming and do a course substitution*

Note: EE/CE 3000 – Engineering Economics is often offered in the summer.

# Need a prerequisite waiver?

- After you validate your courses on GET, if you do not meet all of the prerequisites for an ME course, you will need to apply for a prerequisite waiver for that course
- Situations where a prerequisite waiver will be approved
  - *You earned less than a C in a prerequisite course taken before Fall 2017*
  - *You are a transfer student and not all of your prerequisite courses have been evaluated (unofficial transcript may be needed to verify coursework)*
  - *You have taken courses elsewhere but the courses have not been fully transferred to Cal State LA yet (unofficial transcript may be needed to verify coursework)*
  - *You are planning to take a prerequisite course this summer at another college or university (or at Cal State LA but you haven't already registered for summer)*

# How to request a prerequisite waiver



Department of Mechanical Engineering

ECST HOME STUDENTS FACULTY/STAFF ACADEMICS RESEARCH/PROJECTS

Department of Mechanical Engineering >

Undergraduate

Graduate

Faculty

Forms

Resources

Advisement Hours

Contact

EIT Requirements

Internships

Job Opportunities

ME Professional Practice Requirements

Program Educational Objectives

Student Outcomes

ME Enrollment Data

Frequently Asked Questions

Prerequisite Waiver Application >

Semester Application

## Prerequisite Waiver

Beginning Fall 2018, all ME courses (ME 2010, ME 2050, ME 2070, ME 2080) will only be held to the C or better. This policy will hold you to the C or better.

Use this form for request a prerequisite waiver for courses you received lower than a C (you may request for courses you are currently taking). You may request prerequisite waiver for courses you are currently taking.

What course are you requesting a prerequisite waiver for?

ME 3230

What are the prerequisites for the course?

ME 2070, ME 2050

What grade did you earn for each prerequisite?

(ex: ME 2070: C-, ME 2050: B)

ME 2070: C- ME 2050: B

*The Department will verify the information and then issue a permit.*

When did you earn these grades?

(ex: ME 2070:Fall 2016, ME 2050: Fall 2017)

ME 2070: Fall 2016 ME 2050: Fall 2017

# Senior Design Application

Department of Mechanical  
Engineering >

Undergraduate >

Graduate >

Faculty

Forms

Resources

Advising

Contact

EIT Requirements >

Internships

Job Opportunities

ME Professional Practice  
Requirements

Program Educational Objectives

Student Outcomes

ME Enrollment & Graduation  
Data

Frequently Asked Questions

Programs & Application

Senior Design Application

Areas of Research

Research Projects

## Senior Design Application

ME 4971 / ME 4972 (Senior Mechanical Engineering Design) Online  
Application Form

Fall 2020 - Spring 2021

In order to issue permits for senior design, we need to confirm that all students have met or are planning to meet the prerequisite and co-requisite course requirements. Students must have completed all prerequisites (ME 3000, ME 3010, ME 3210, and ME 3230) prior to the beginning of Fall 2020. If you took the prerequisite in Fall 2017 or later, you must have earned a grade of C or better. There are also four prerequisites/co-requisites (ME 3040, ME 3270, ME 3800, and ME 4061 (was ME 3060)) which must be taken at the same time as senior design (ME 4971) or during an earlier term. To take a co-requisite along with ME 4971 in Fall 2020, you must have completed all prerequisites for the co-requisite course prior to Fall 2020. **Please note that all information provided will be verified. If you inaccurately report any information, a permit will NOT be issued.** In addition, if you do not receive a C or better in a planned course, a previously issued permit will be withdrawn.

**Deadline May 30, 2020**

Online application

# Not sure what type of help you need?

Contact Andrea at [me.ecst@calstatela.edu](mailto:me.ecst@calstatela.edu) and she can help ...

- *With registration questions*
  - Holds
  - Repeats
  - Permits
- *Direct you to the right advisor for*
  - Course selection
  - Career advice
  - Academic concerns (academic struggles, study skills help, campus resources, degree progress concerns, etc.)
  - Transfer credit
  - Course substitutions
- *Make an appointment with the department chair for*
  - Reinstatements, readmission, leaves of absence
  - Repeat limit exceptions
  - Academic and well-being concerns



# Need help?

## Spring 2020 Remote Advising Information

Advisor Name and Contact Information	Zoom Advising Hours**	Zoom Meeting Information	Help With
<b>Dr. Jeffrey Santner, Principal ME Undergraduate Advisor</b> <a href="mailto:jsantne@calstatela.edu">jsantne@calstatela.edu</a>	T 1:30 - 3 pm R 10 am - 1 pm F 4 - 5:30 pm	<a href="https://calstatela.zoom.us/j/169015861">https://calstatela.zoom.us/j/169015861</a> Meeting ID: 169 015 861 One tap mobile +16699006833,,169015861# US (San Jose)	ME BS Program Info, Course Planning, Academic Concerns
<b>Dr. Nancy Warter-Perez, ME Department Chair</b> <a href="mailto:nwarter@calstatela.edu">nwarter@calstatela.edu</a>	T 11 - 12 noon (no appt needed) and W 2 - 4 pm (by appointment)	<a href="https://calstatela.zoom.us/j/277602369">https://calstatela.zoom.us/j/277602369</a> Meeting ID: 277 602 369 One tap mobile +16699006833,,277602369# US (San Jose)	ME BS and MS Advising for Reinstatements, Probation, Leaves of Absence, and other Exceptional Circumstances
<b>Dr. David Raymond, ME Undergraduate Advisor and BME Minor Coordinator</b> <a href="mailto:draymon@calstatela.edu">draymon@calstatela.edu</a>	W 2 - 3 pm TR 1:45 - 2:45 pm	<a href="https://calstatela.zoom.us/j/200972865">https://calstatela.zoom.us/j/200972865</a> Meeting ID: 200 972 865 One tap mobile +16699006833,,200972865# US (San Jose)	ME BS Course Planning and Academic Concerns, BME Minor
<b>Dr. Jim Kuo, ME Undergraduate Advisor</b> <a href="mailto:jkuo7@calstatela.edu">jkuo7@calstatela.edu</a>	T 2 - 3: pm W 4:30 - 5 pm	<a href="https://calstatela.zoom.us/j/780674342">https://calstatela.zoom.us/j/780674342</a> Meeting ID: 780 674 342 One tap mobile +16699006833,,780674342# US (San Jose)	ME BS Course Planning and Academic Concerns
<b>Dr. Chris Bachman, ME Undergraduate Advisor</b> <a href="mailto:john.bachman@calstatela.edu">john.bachman@calstatela.edu</a>	M 12 - 2 pm	<a href="https://calstatela.zoom.us/j/9561891801">https://calstatela.zoom.us/j/9561891801</a> Meeting ID: 956 189 1801 One tap mobile +16699006833,,9561891801# US (San Jose)	ME BS Course Planning and Academic Concerns
<b>Dr. Claudia Espinosa, ME Undergraduate Advisor</b> <a href="mailto:cespino2@calstatela.edu">cespino2@calstatela.edu</a>	Zoom: S 11 - 2 pm and by appointment on W and R at 6 pm Email: Responses will be faster between 3:00 and 6:00 p.m.		ME BS Course Planning, Academic Concerns, Help with Resumes and General Graduate School Questions

# Getting the most out of your education

- Join Student Organizations – in the department, college, and across the university!
  - *ASME, SHESS, SWE, NSBE, Tau Beta Pi, Pi Tau Sigma, and more!*
- Seek out opportunities to participate in research or design projects
  - *Competition Teams (Mini Baja, Formula SAE, Robosub, CubeSat, Eagle Rocketry, and more!)*
  - *Faculty Led Research (Conduct research with faculty mentor, publish papers, attend conferences, and more!)*
  - *Internships (Get practical industry experience – Pay attention to emails from T. Fox and the ECST Newsletter for opportunities!)*
  - *REU – Research Experiences for Undergraduates – paid opportunities to conduct research at other universities!*

# Getting the most out of your education (continued...)

- Attend the ECST Research Seminar Series (for credit or just for fun!)
- Attend professional development workshops on resume writing, interviewing skills (especially for technical interviews), mock interviews
- Seek out campus support resources (writing, tutoring, SI sessions, time-management, study skills, counseling, and more!)
- Branch out beyond engineering – explore all that the campus has to offer!

# TIPS FOR SUCCESS

1. Make your school work your #1 priority
2. Study hard to achieve a high GPA and to avoid the need to repeat courses (28 unit repeat limit, 3 course repeat limit, and 18 unit withdraw limit)
  - High GPA gets your foot in the door, knowledge is what keeps you there
3. Use internet resources wisely
  - Is the source trustworthy?
  - Does this resource help me to learn?
4. Increase your time on campus – strong correlation to success!
5. Form study groups – learn from peers (best way to learn something is to teach it to someone else)
  - the library has some great collaborative learning spaces
6. DON'T CHEAT!! Ultimately you're just wasting your own time and money.
7. Go to office hours and help sessions/SI sessions (with a friend!)
8. Take advantage of opportunities outside of the classroom!

# Why is it important to know your GPAs

- All three GPAs must be above a 2.0 to graduate
  - *Overall*
  - *Cal State LA*
  - *Major*
- Your GPA should be over a 3.0 to qualify for most internships and job
- Your GPA should be over a 2.75 to be accepted into the master's degree program at Cal State LA (you may be accepted conditionally with a GPA over 2.5)
- **Tip:** use grade forgiveness wisely! If you've repeated courses (because you earned less than a C), you have 16 units of grade forgiveness available. Replace your lowest grades! You can request to change which courses are forgiven.

# Seriously consider continuing on in our master's program...

- Be more competitive in the job market
  - *More advanced knowledge*
  - *Strengthen your critical thinking skills*
  - *Raise your GPA*
- Certain employers may sponsor your master's degree
- During your master's degree, you will...
  - *Conduct cutting-edge research with highly engaged faculty!*
    - Go to faculty office hours and learn about their research
  - *Improve your depth of knowledge in mechanical engineering*
- Pursue your PhD!
  - *Advanced research to improve the state of knowledge*
  - *You can make a difference*
  - *Be a role model to others*

# Questions???

- Contact

- *Andrea Galvez in the department office (ET A205)\*\**
  - 323-343-4490
  - [me.ecst@calstatela.edu](mailto:me.ecst@calstatela.edu)
- *Dr. Warter-Perez, Department Chair, at*  
[nwarter@calstatela.edu](mailto:nwarter@calstatela.edu)
- *Dr. Santner, Principal Undergraduate Advisor, at*  
[jsantne@calstatela.edu](mailto:jsantne@calstatela.edu)

*Feedback always welcome!!*

- *Course instruction*
- *Course offerings/Curriculum*
- *Feedback on workshops/sessions*

**\*\* Due to the COVID-19 situation, the department office is closed until further notice, however, we can still be reached by email and phone (and Zoom).**