

UC SANTA BARBARA

College of Engineering

Change of Major Info Session for Freshmen

(students admitted to fall 2024)

Please mute your microphone and turn off your camera.
This presentation will be recorded.

Basics for all majors...

- Only students who joined campus as freshman applicants can change majors.
 - Students who applied as transfers cannot change in, switch between, or add CoE as a second major.
 - No exceptions.
- Must complete at least 30 UCSB units, but no more than 6 regular quarters
 - Students may be in their last required change of major course(s) in their sixth quarter.
 - Some majors require that students be accepted to their major *before* their sixth regular quarter.
 - The college will not approve exceptions to the requirements listed here or on the individual major websites.
- Have a backup plan!
 - Keep up with crucial classes in your current major
 - Talk to an L&S College advisor about a backup major
 - duels.ucsb.edu/advising/appointments

A few more things...

- Students pursuing a double major follow the same requirements.
- Students already declared in an engineering major must follow the same requirements.
 - If your major does not have access to specific courses you will not get preferential registration access as an engineer.

What are my odds?

Hard to say! We are not always aware of all students who are pursuing a change of major.

Meeting the minimum requirements only offers the possibility of changing majors. Each department has a limited number of seats to fill each year, and will accept the strongest applicants based on GPA (major prep and cumulative) and progress in recommended courses.

Change of majors in 2023-2024 (from outside COE):

ChemE - 7 CE - 9 CS - 69 EE - 3 ME - 7

A special note about PHYS requirements

Physics courses are a graduation requirement for all CoE majors except Computer Science. Physics is an option for completing one of the Science Elective requirements in Computer Science.

All majors will accept the PHYS 20 sequence as a substitute for the PHYS 7 sequence requirement.

If your back-up major is Physics, you should take the PHYS 20 sequence. Do not mix and match Physics sequences without specific guidance from an academic advisor.

If you are accepted into a CoE major before you've completed the PHYS 20 sequence, you will be given individual advising on how to complete the requirements for your new major.

CHEMICAL ENGINEERING 2024-25

This grid is intended to serve as a guide and should be adjusted for individual circumstances in consultation with academic advisors.
Course availability subject to change. Changes will be announced by the department.

FRESHMAN YEAR

FALL	units	WINTER	units	SPRING	units
CH E 5	3	CHEM 3B or 1B	3	CHEM 3C or 1C	3
CHEM 3A or 1A	4	CHEM 2AL	2.5	CHEM 2BL	2.5
MATH 3A	4	MATH 3B	4	ENGR 3	3
WRIT 1E or 2E*	4	PHYS 7A	4	MATH 4A or 4AI	4
		WRIT 2E or 50E*	4	PHYS 7B	4
TOTAL	15		17.5		16.5

SOPHOMORE YEAR

FALL	units	WINTER	units	SPRING	units
CH E 10	3	CH E 107	3	CH E 110B	3
CHEM 109A or 109AH	4	CH E 110A	3	CH E 132A	4
MATH 4B or 4BI	4	CHEM 6AL	3	CHEM 6BL	3
PHYS 7L	1	G.E.	4	MATH 6B	4
PHYS 7C	4	MATH 6A or 6AI	4	CHEM 109B or 109BH	4
TOTAL	16		17		18

ChemE advisors: Erica and Jasmine

cheugrads@engineering.ucsb.edu

chemengr.ucsb.edu/undergraduate/change-major

Chemical Engineering

- Must have 3.0 UC GPA or higher.
- May apply spring quarter of first year and/or second year.
- Decisions made in summer.

Minimum required courses (yellow):

- Math 2A or 3A, 2B or 3B, 4A
- Chem 3A, 3B, 3C (CHEM 1A/B/C series ok), 2AL, and 2BL
- CH E 5

Recommended, (green):

- Phys 7A, 7B
- ENGR 3
- CH E 10 and 110A/B (required for second year apps)

-Students must meet with Chemical Engr advisor to review process.

COMPUTER ENGINEERING 2024-25

This grid is intended to serve as a guide and should be adjusted for individual circumstances in consultation with academic advisors.
Course availability subject to change. Changes will be announced by the department.

FRESHMAN YEAR

FALL	units	WINTER	units	SPRING	units
ECE 3 or CMPSC 8	4	CMPSC 16	4	CMPSC 24	4
ECE 5 ¹	4	ECE 1A	1	ECE 1B	1
MATH 3A	4	MATH 3B	4	MATH 4A	4
WRIT 1E or 2E ²	4	PHYS 7A	4	PHYS 7B	4
		WRIT 2E or 50E ²	4	WRIT 50E or G.E. ²	4
TOTAL	16		17		17

SOPHOMORE YEAR

FALL	units	WINTER	units	SPRING	units
ECE 10A	3	ECE 10B	3	ECE 10C	3
ECE 10AL	2	ECE 10BL	2	ECE 10CL	2
MATH 4B	4	ECE 15A	4	ECE 139 or PSTAT 120A ⁵	4
CMPSC 32 ³	4	PHYS 7D	3	ECE 152A	5
PHYS 7C	4	MATH 6A	4	CMPSC 40 ³	5
		PHYS 7L ⁴	1		
TOTAL	17		17		19

Computer Engineering

- Must have 3.0 UC GPA or higher.
- Must meet with advisor within 1st year.
- Two application windows: Winter and Spring of sophomore year.
- Satisfactory completion at UCSB of 5 required courses w/ a 3.5 or better. First attempt only.

Minimum required courses (yellow).

At least 5 of the following:

- CS 16, 24, 32, or 40 (at least 2)
- ECE 10A/AL, 10B/BL, 10C/L, 15A (at least 2)
- Math 4B

Prerequisite requirements (blue):
Must be completed before or taken alongside required courses.

CE Advisors: Beth and Joanna

www.ce.ucsb.edu/undergrad/current

(Fill out CE Undergrad Student Affairs Inquiry form)

COMPUTER SCIENCE 2024-25

This grid is intended to serve as a guide and should be adjusted for individual circumstances in consultation with academic advisors. Course availability subject to change. Changes will be announced by the department.

FRESHMAN YEAR

FALL	units	WINTER	units	SPRING	units
G.E. or CMPSC 8 ¹	4	CMPSC 16 ¹	4	CMPSC 24	4
MATH 3A	4	MATH 3B	4	MATH 4A	4
G.E.	4	Science Elective	4	Science Elective	4
G.E.	4	G.E.	4	Science or Free Elective	4
TOTAL	16		16		16

SOPHOMORE YEAR

FALL	units	WINTER	units	SPRING	units
CMPSC 32	4	CMPSC 64	4	CMPSC 130B	4
CMPSC 40	5	MATH 4B	4	MATH 6A	4
PSTAT 120A	4	G.E.	4	G.E.	4
Science Elective	4	CMPSC 130A	4	Science or Free Elective	4
TOTAL	17		16		16

Computer Science

- Must have 3.0 UC GPA or higher.
- Change of major GPAs are calculated using UC courses only.
- Submit application by week 4 of the quarter you are completing required courses.
- Denied applications are not eligible for appeal

Completion of the following with a 3.2 or higher (first attempt only):
CMPSC 16, 24, 40 (or Math 8)

Completion of the following with a 3.0 or higher (first attempt only):
Math 2A/3A, 2B/3B, 4A, and 4B

CMPSC 24 must be taken at UCSB to be considered for change of major.

Prerequisite requirements (blue):
Must be completed before or taken alongside required courses.

CS Advisor: Krystal

cs-undergrad@ucsb.edu

www.cs.ucsb.edu/education/undergraduate/prospective-students

ELECTRICAL ENGINEERING 2024-25

This grid is intended to serve as a guide and should be adjusted for individual circumstances in consultation with academic advisors.
Course availability subject to change. Changes will be announced by the department.

FRESHMAN YEAR

FALL	units	WINTER	units	SPRING	units
ECE 3	4	CMPSC 16 or CMPSC 9	4	ECE 6 or CHEM 1A ²	4
ECE 5 ¹	4	MATH 3B	4	MATH 4A	4
MATH 3A	4	PHYS 7A	4	PHYS 7B	4
WRIT 1E or 2E ²	4	WRIT 2E or 50E ²	4	WRIT 50E or G.E. ²	4
TOTAL	16		16		16

SOPHOMORE YEAR

FALL	units	WINTER	units	SPRING	units
ECE 10A	3	ECE 10B	3	ECE 10C	3
ECE 10AL	2	ECE 10BL	2	ECE 10CL	2
MATH 4B	4	ECE 130A	4	ECE 139	4
PHYS 7C	4	MATH 6A	4	MATH 6B	4
G.E.	4	PHYS 7D	3	PHYS 7L ¹	1
TOTAL	17		16		14

JUNIOR YEAR

FALL	units	WINTER	units	SPRING	units
ECE 15A	4	ECE 152A	5	ECE 153B or ECE Elective	4
ECE 134	4	ECE 130B	4	ECE Elective	4
ECE Elective	4	ECE Elective	4	ECE Elective	4
ECE Elective	4	G.E.	4	G.E.	4
TOTAL	16		17		16

Electrical Engineering

- Must have 3.0 UC GPA or higher.
- Must meet with advisor within 1st year.
- Two application windows: Winter and Spring of sophomore year.

-Satisfactory completion at UCSB of 5 required courses w/ a 3.5 or better. First attempt only.

Minimum required courses (yellow).

5 courses required from:

- Math 4B, 6A, 6B (at least 2)
- ECE 10A/AL, 10B/BL, 10C/L, 15A

Prerequisite requirements (blue):

Must be completed before or taken alongside required courses.

EE Advisors: Beth and Joanna

www.ece.ucsb.edu/undergrad/current

(Fill out EE Undergrad Student Affairs Inquiry form)

MECHANICAL ENGINEERING 2024-25

This grid is intended to serve as a guide and should be adjusted for individual circumstances in consultation with academic advisors.
Course availability subject to change. Changes will be announced by the department.

FRESHMAN YEAR

FALL	units	WINTER	units	SPRING	units
CHEM 1A or 2A	4	CHEM 1B or 2B	3	MATH 4A	4
MATH 3A	4	CHEM 2AL	2.5	ME 10	4
ME 12S ¹	1	MATH 3B	4	ENGR 3	3
WRIT 1E or 2E ²	4	PHYS 7A	4	PHYS 7B	4
		WRIT 2E or 50E ²	4	WRIT 50E or G.E. ²	4
TOTAL	13		17.5		19

SOPHOMORE YEAR

FALL	units	WINTER	units	SPRING	units
MATH 4B	4	MATH 6A	4	MATH 6B	4
ME 14	4	ME 6	4	ME 16	4
ME 17	3	ME 15	4	G.E.	4
PHYS 7C	4	PHYS 7D	3	G.E.	4
		PHYS 7L	1		
TOTAL	15		16		16

Apply here

ME Advisors: Katelynn and Roy

meugrad@engineering.ucsb.edu

me.ucsb.edu/undergraduate/admissions/change-major

Mechanical Engineering

Must meet with advisor within fall quarter and report required course grades to ME advisor quarterly.

Students will be notified if they are selected to change major after fall quarter of sophomore year.

Complete 8 core courses (green) with 3.2 GPA:

-Math 2A/3A, 2B/3B, 4A, 4B, 6A, 6B

-Physics 7A, 7B

-ENGR 3

-CHEM 1A, 1B

-ME 10, 14, 15, 17

-required (yellow): ENGR 3, ME 14, ME 17

ME 14 and 17 are offered in the summer/fall. ME 15 is offered summer/winter.

Students may take courses at CC or CSU. Grades will be calculated into GPA to determine change of major eligibility.

But how do I get into those classes?

Engineering advisors will always uphold the major restrictions in place. If no pass is noted they will not provide add codes until pass 3 or after the quarter has started.

Restrictions for courses like math, chemistry, and physics are set by those departments. Often STEM majors have pass 1 access.

Where do you find this? In GOLD! (Course Info → Restrictions)

MATH 4A - LIN ALG W/APPS - Course Information for Winter 2024

Level Limit: Undergrads Only

Limited to these

major(s) only: ACTSC - Actuarial Science (Pass 1)
AMATH - Applied Mathematics (Pass 1)
ARTCS - Art (Pass 1)
BIOCS - Biology (Pass 1)
CHBCS - Chemistry and Biochemistry (Pass 1)
CHEME - Chemical Engineering (Pass 1)

But how do I get into those classes? (cont.)

Computer Science (CMPSC) Classes:

- Restrictions vary by class and quarter. Most restrictions lift in pass 3. Always check the restrictions tab for each quarter.
- If a waitlist goes active, add yourself to it regardless of any major restrictions.
- There is more availability in summer (CMPSC 16, 24, and 40 are often offered in summer).

Electrical and Computer Engineering (ECE) classes:

- A petition to enter an ECE Course (Non-Major) form is required, submitted to the undergrad advisor.
- The form can be found on the CE and ECE websites.
- Add codes are generally provided by the advisor during the first week of instruction if seats are available.

Mechanical Engineering (ME) classes:

- If students continue to be eligible for a change of major, students will be considered for enrollment in ME courses in summer and/or fall.
- Contact the ME advisors for more information.

Submitting your petition

Submit a change of major petition directly to your prospective department advisor.

- CS must be turned in by week 4 of the quarter in which you are completing the last of the minimum required courses.
- ChemE, EE, CE must be submitted before the end of the quarter in which you complete your last change of major course.
- ME will notify you after fall quarter of your 2nd year if you have been accepted and will request your petition.

The petition can be found on the Registrar's website or any college website.

- If you are not currently in CoE you should use the form "Change of Major with Change of College"
- Change of majors only need page 1 + any departmental requested forms.
- Dual college, double major students also need the memo of understanding and study plan.

College of Engineering General Education

College of Engineering general education requirements are very similar to College of Letters and Science, Bachelor of Science (BS) general education requirements.

Courses that apply to L&S General Subject Area Requirements A1, D, E, F, and G will apply to COE General Subject Area Requirements.

Area A2 in COE is more limited than in L&S. See our website for a list of approved courses.

Courses that apply to L&S Special Subject Area Requirements (Ethnicity, European Traditions, World Cultures, and Writing Requirements) will apply to COE Special Subject Area Requirements.

COE does not have Areas B, C, or quantitative relationships requirements.

If you are a dual college, double major you must complete the General Education of both colleges (unlimited overlap is allowed).

Key takeaways!

- You must contact the department advisor now if you are interested in: CHEME, CE, EE, or ME.
 - We recommend waiting until the third week of the quarter.
- Review change of major requirements on individual department websites and reach out with any questions.
- Have a backup plan.
 - Meet with an L&S advisor and have a realistic backup major.
 - Talk with Career Services advisors about your interests and goals.
- Get involved!
 - Join engineering related student organizations.
 - Attend career events and network with engineering companies.
 - Talk to engineering and science faculty and graduate students about getting involved with research (especially if graduate school is your goal).

Contact Information

- CoE College Advising: coe-info@engineering.ucsb.edu
- Computer Science: cs-undergrad@ucsb.edu
- Electrical and Computer Engineering: <https://forms.gle/CMSNsjfmobb5bDsd6>
- Mechanical Engineering: meugrad@engineering.ucsb.edu
- Chemical Engineering: cheugrads@engineering.ucsb.edu