College of Engineering

Change of Major Info Session for Freshmen

(students admitted to fall 2025)

Please mute your microphone and turn off your camera.

Basics for <u>all</u> 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.

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. The Physics Department does not accept the PHYS 7 sequence for their major; taking the PHYS 7 sequence over the PHYS 20 sequence will remove Physics as a backup major option. Do not mix and match Physics sequences without specific guidance from a Physics academic advisor.

The first course of the PHYS 20 sequence (PHYS 21) is offered in fall and winter quarters, and you need to start the sequence during your first year to stay on track in the Physics major.

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.

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 2024-2025 (from outside COE):

ChemE - 14 CE - 1 CS - 31 EE - 1 ME - 16

CHEMICAL ENGINEERING

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 4Al	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 6Al	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 or 1A, 1B, 1C, and 2AL, 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

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 7L4	1		
TOTAL	17		17		19

CE Advisors: Beth and Joanna

www.ce.ucsb.edu/undergrad/current

(Fill out CE Undergrad Student Affairs Inquiry form)

Computer Engineering

- -Must have 3.0 UC GPA or higher.
- -Must meet with advisor within 1st year.
- -Two application windows: Winter or Spring of sophomore year.
- -Satisfactory completion <u>at UCSB</u> 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)

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

COMPUTER SCIENCE

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 81	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

CS Advisors: Krystal and Roselind cs-undergrad@ucsb.edu

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

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.

ELECTRICAL ENGINEERING

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 ³	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 7L4	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

EE Advisors: Beth and Joanna

www.ece.ucsb.edu/undergrad/current

(Fill out EE Undergrad Student Affairs Inquiry form)

Electrical Engineering

- -Must have 3.0 UC GPA or higher.
- -Must meet with advisor within 1st year.
- -Two application windows: Winter or Spring of sophomore year.
- -Satisfactory completion <u>at UCSB</u> 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.

MECHANICAL ENGINEERING

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 \rightarrow 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, <u>add yourself to it</u> 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:

- Submit a request through the ECE inquiry form found on the website
- 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

- The academic advisor in the major you are petitioning to change to or add as a double major will submit the petition on your behalf through the Student Success Hub portal <u>after</u> they have determined you have been accepted into the major.
- Check the website of the major you will be changing into for more information on this process.

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