



Electrical Engineering

Junior Meeting 2021
WELCOME!

The banner features a blue background with a grid pattern. In the center, there are several overlapping translucent spheres in blue, green, and yellow. To the left, there is a small image of a building with a sign that reads 'UNIVERSITY OF CALIFORNIA SANTA BARBARA'. To the right, there is a small image of a modern building with large windows. Below the main title, there is a small image of a person working in a laboratory setting.

Senior Elective Requirements

- ✓ 8 Courses and 32 units minimum
- ✓ EE Senior Capstone, ECE 188A-B-C is required
 - ECE 188A prerequisite is ECE 130A&B with a C- or better in both; *or* ECE 137A&B with a C- or better in both
- ✓ 1 Dept Approved Sequence
 - ✓ Approx. 4 (minimum 32 units total) single elective courses

Approval Process

- 🌐 Discuss your senior elective plans with your faculty advisor and get course recommendations.
- 🌐 Faculty Advisor must sign and approve your senior elective plans
- 🌐 Bring/email the signed form to ECE Student Office for final approval



An 'APPROVED' stamp with a blue border and a checkmark inside, placed over a clipboard icon.

Elective Sheets are Contracts

You **MUST** complete the required number of elective courses.

You do not have to list ALL electives you plan to take, just the required minimum (8 courses, 32 units minimum).

You are responsible for knowing prerequisites of the courses.

PLAN CAREFULLY!!



A close-up image of a hand holding a pen, writing on a document.

2021-2022 EE Faculty Advisor Assignments

Last Name	Faculty Advisor	Faculty Email
A - D	Prof. Alizadeh	alizadeh@ece.ucsb.edu
E - G	Prof. Hespanha	hespanha@ece.ucsb.edu
H - J	Prof. Kim	bongjin@ece.ucsb.edu
K – M	Prof. Miolane	ninamiolane@ece.ucsb.edu
N – Q	Prof. Moody	moody@ece.ucsb.edu
R - V	Prof. Parhami	parhami@ece.ucsb.edu
W - Z	Prof. Theogarajan	ltheogar@ece.ucsb.edu

EE SENIOR ELECTIVE FORM



Electrical Engineering

[illegible]

Electrical Engineering Program Undergraduate Emphases

The ECE electives allow students to acquire more in-depth knowledge in one of several areas of specialization. Several possible tracks are illustrated below with recommendations for related electives. Note that these are NOT to be considered the only possibilities for electives. They are listed just to provide some guidance in choosing electives consistent with specific disciplines.

Approved Departmental Signature:

SYSTEMS/INSTRUMENTS MANAGER			
Computer	Control Systems/Relatives	Electronic Systems	Engineering & Management
ECU11A.0	ECU11.0	ECU11.0	ECU11.0
ECU11A.1	ECU11.1	ECU11.1	ECU11.1
ECU11A.2	ECU11.2	ECU11.2	ECU11.2
ECU11A.3	ECU11.3	ECU11.3	ECU11.3
ECU11A.4	ECU11.4	ECU11.4	ECU11.4
ECU11A.5	ECU11.5	ECU11.5	ECU11.5
ECU11A.6	ECU11.6	ECU11.6	ECU11.6
ECU11A.7	ECU11.7	ECU11.7	ECU11.7
ECU11A.8	ECU11.8	ECU11.8	ECU11.8
ECU11A.9	ECU11.9	ECU11.9	ECU11.9
ECU11A.10	ECU11.10	ECU11.10	ECU11.10
ECU11A.11	ECU11.11	ECU11.11	ECU11.11
ECU11A.12	ECU11.12	ECU11.12	ECU11.12
ECU11A.13	ECU11.13	ECU11.13	ECU11.13
ECU11A.14	ECU11.14	ECU11.14	ECU11.14
ECU11A.15	ECU11.15	ECU11.15	ECU11.15
ECU11A.16	ECU11.16	ECU11.16	ECU11.16
ECU11A.17	ECU11.17	ECU11.17	ECU11.17
ECU11A.18	ECU11.18	ECU11.18	ECU11.18
ECU11A.19	ECU11.19	ECU11.19	ECU11.19
ECU11A.20	ECU11.20	ECU11.20	ECU11.20
ECU11A.21	ECU11.21	ECU11.21	ECU11.21
ECU11A.22	ECU11.22	ECU11.22	ECU11.22
ECU11A.23	ECU11.23	ECU11.23	ECU11.23
ECU11A.24	ECU11.24	ECU11.24	ECU11.24
ECU11A.25	ECU11.25	ECU11.25	ECU11.25
ECU11A.26	ECU11.26	ECU11.26	ECU11.26
ECU11A.27	ECU11.27	ECU11.27	ECU11.27
ECU11A.28	ECU11.28	ECU11.28	ECU11.28
ECU11A.29	ECU11.29	ECU11.29	ECU11.29
ECU11A.30	ECU11.30	ECU11.30	ECU11.30
ECU11A.31	ECU11.31	ECU11.31	ECU11.31
ECU11A.32	ECU11.32	ECU11.32	ECU11.32
ECU11A.33	ECU11.33	ECU11.33	ECU11.33
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ECU11A.35	ECU11.35	ECU11.35	ECU11.35
ECU11A.36	ECU11.36	ECU11.36	ECU11.36
ECU11A.37	ECU11.37	ECU11.37	ECU11.37
ECU11A.38	ECU11.38	ECU11.38	ECU11.38
ECU11A.39	ECU11.39	ECU11.39	ECU11.39
ECU11A.40	ECU11.40	ECU11.40	ECU11.40
ECU11A.41	ECU11.41	ECU11.41	ECU11.41
ECU11A.42	ECU11.42	ECU11.42	ECU11.42
ECU11A.43	ECU11.43	ECU11.43	ECU11.43
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ECU11A.48	ECU11.48	ECU11.48	ECU11.48
ECU11A.49	ECU11.49	ECU11.49	ECU11.49
ECU11A.50	ECU11.50	ECU11.50	ECU11.50
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ECU11A.54	ECU11.54	ECU11.54	ECU11.54
ECU11A.55	ECU11.55	ECU11.55	ECU11.55
ECU11A.56	ECU11.56	ECU11.56	ECU11.56
ECU11A.57	ECU11.57	ECU11.57	ECU11.57
ECU11A.58	ECU11.58	ECU11.58	ECU11.58
ECU11A.59	ECU11.59	ECU11.59	ECU11.59
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ECU11A.61	ECU11.61	ECU11.61	ECU11.61
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ECU11A.66	ECU11.66	ECU11.66	ECU11.66
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ECU11A.121	ECU11.121	ECU11.121	ECU11.121
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ECU11A.127	ECU11.127	ECU11.127	ECU11.127
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ECU11A.129	ECU11.129	ECU11.129	ECU11.129
ECU11A.130	ECU11.130	ECU11.130	ECU11.130
ECU11A.131	ECU11.131	ECU11.131	ECU11.131
ECU11A.132	ECU11.132	ECU11.132	ECU11.132
ECU11A.133	ECU11.133	ECU11.133	ECU11.133
ECU11A.134	ECU11.134	ECU11.134	ECU11.134
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ECU11A.136	ECU11.136	ECU11.136	ECU11.136
ECU11A.137	ECU11.137	ECU11.137	ECU11.137
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ECU11A.139	ECU11.139	ECU11.139	ECU11.139
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ECU11A.142	ECU11.142	ECU11.142	ECU11.142
ECU11A.143	ECU11.143	ECU11.143	ECU11.143
ECU11A.144	ECU11.144	ECU11.144	ECU11.144
ECU11A.145	ECU11.145	ECU11.145	ECU11.145
ECU11A.146	ECU11.146	ECU11.146	ECU11.146
ECU11A.147	ECU11.147	ECU11.147	ECU11.147
ECU11A.148	ECU11.148	ECU11.148	ECU11.148
ECU11A.149	ECU11.149	ECU11.149	ECU11.149
ECU11A.150	ECU11.150	ECU11.150	ECU11.150
ECU11A.151	ECU11.151	ECU11.151	ECU11.151
ECU11A.152	ECU11.152	ECU11.152	ECU11.152
ECU11A.153	ECU11.153	ECU11.153	ECU11.153
ECU11A.154	ECU11.154	ECU11.154	ECU11.154
ECU11A.155	ECU11.155	ECU11.155	ECU11.155
ECU11A.156	ECU11.156	ECU11.156	ECU11.156
ECU11A.157	ECU11.157	ECU11.157	ECU11.157
ECU11A.158	ECU11.158	ECU11.158	ECU11.158
ECU11A.159	ECU11.159	ECU11.159	ECU11.159
ECU11A.160	ECU11.160	ECU11.160	ECU11.160
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ECU11A.163	ECU11.163	ECU11.163	ECU11.163
ECU11A.164	ECU11.164	ECU11.164	ECU11.164
ECU11A.165	ECU11.165	ECU11.165	ECU11.165
ECU11A.166	ECU11.166	ECU11.166	ECU11.166
ECU11A.167	ECU11.167	ECU11.167	ECU11.167
ECU11A.168	ECU11.168	ECU11.168	ECU11.168
ECU11A.169	ECU11.169	ECU11.169	ECU11.169
ECU11A.170	ECU11.170	ECU11.170	ECU11.170
ECU11A.171	ECU11.171	ECU11.171	ECU11.171
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ECU11A.173	ECU11.173	ECU11.173	ECU11.173
ECU11A.174	ECU11.174	ECU11.174	ECU11.174
ECU11A.175	ECU11.175	ECU11.175	ECU11.175
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ECU11A.180	ECU11.180	ECU11.180	ECU11.180
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ECU11A.183	ECU11.183	ECU11.183	ECU11.183
ECU11A.184	ECU11.184	ECU11.184	ECU11.184
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ECU11A.186	ECU11.186	ECU11.186	ECU11.186
ECU11A.187	ECU11.187	ECU11.187	ECU11.187
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ECU11A.192	ECU11.192	ECU11.192	ECU11.192
ECU11A.193	ECU11.193	ECU11.193	ECU11.193
ECU11A.194	ECU11.194	ECU11.194	ECU11.194
ECU11A.195	ECU11.195	ECU11.195	ECU11.195
ECU11A.196	ECU11.196	ECU11.196	ECU11.196
ECU11A.197	ECU11.197	ECU11.197	ECU11.197
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ECU11A.199	ECU11.199	ECU11.199	ECU11.199
ECU11A.200	ECU11.200	ECU11.200	ECU11.200
ECU11A.201	ECU11.201	ECU11.201	ECU11.201
ECU11A.202	ECU11.202	ECU11.202	ECU11.202
ECU11A.203	ECU11.203	ECU11.203	ECU11.203
ECU11A.204	ECU11.204	ECU11.204	ECU11.204
ECU11A.205	ECU11.205	ECU11.205	ECU11.205
ECU11A.206	ECU11.206	ECU11.206	ECU11.206
ECU11A.207	ECU11.207	ECU11.207	ECU11.207
ECU11A.208	ECU11.208	ECU11.208	ECU11.208
ECU11A.209	ECU11.209	ECU11.209	ECU11.209
ECU11A.210	ECU11.210	ECU11.210	ECU11.210
ECU11A.211	ECU11.211	ECU11.211	ECU11.211
ECU11A.212	ECU11.212	ECU11.212	ECU11.212
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ECU11A.216	ECU11.216	ECU11.216	ECU11.216
ECU11A.217	ECU11.217	ECU11.217	ECU11.217
ECU11A.218	ECU11.218	ECU11.218	ECU11.218
ECU11A.219	ECU11.219	ECU11.219	ECU11.219
ECU11A.220	ECU11.220	ECU11.220	ECU11.220
ECU11A.221	ECU11.221	ECU11.221	ECU11.221
ECU11A.222	ECU11.222	ECU11.222	ECU11.222
ECU11A.223	ECU11.223	ECU11.223	ECU11.223</

Approved Departmental Sequences:

Design Sequences

SCF 121A to SCF 123B
SCF 121A to SCF 122B
SCF 124A to SCF 124D (a) (a) (a) (a)
SCF 140A to SCF 140D (a) (a) (a) (a)
SCF 141A to SCF 141D (a) (a) (a) (a)
SCF 142A to SCF 142D (a) (a) (a) (a)
SCF 170 to SCF 180
SCF 170 to SCF 179
SCF 170 to SCF 179

Other Sequences

SCF 127A to SCF 128A
SCF 129 to SCF 129B
SCF 143A to SCF 143D
SCF 143A to SCF 143D (a) (a) (a) (a)
SCF 143A to SCF 143D (a) (a) (a) (a)
SCF 144 to SCF 151
SCF 145A to SCF 145D (a) (a) (a) (a)
SCF 145A to SCF 145D (a) (a) (a) (a)
SCF 146 to SCF 150
SCF 146 to SCF 170
SCF 154A to SCF 154D
SCF 157A to SCF 157B
SCF 159 to SCF 170
SCF 160 to SCF 161
SCF 161A to SCF 161B
SCF 161A to SCF 161B

EE Senior Elective Summary

- Capstone Project: ECE 188 ABC; Include your completed electives! Run quarterly progress report
- One (1) Sequence
- 32 units, 8 courses



Important
FORMS

Elective Course Scheduling Resources

ECE course scheduling, go to ece.ucsb.edu

The screenshot shows the ECE Department website with a navigation bar and several content sections. A red arrow points to the 'Pubs & Courses' section on the right side of the page.

ece.ucsb.edu/undergrad/curriculum

Elective Course Scheduling Resources

Number	Undergraduate Course	F2021	W2022	S2022	M2022**
1A	Computer Engineering Seminar		X		
1B	Ten Puzzling Problems in Computer Engineering			X	
3	Introduction to Electrical Engineering	X			
5	Introduction to Electrical and Computer Engineering		X		
10A/10AL	Foundations of Analog and Digital Circuits & Systems	X	X		
10B/10BL	Foundations of Analog and Digital Circuits & Systems		X	X	
10C/10CL	Foundations of Analog and Digital Circuits & Systems	X		X	
11A	Fundamentals of Logic Design		X		
94R	Sensors and Sensing Technology			X	
120A	Integrated Circuit Design & Fabrication		X		
120B	Integrated Circuit Design & Fabrication			X	
122A	VLSI Principles	X			
122B	VLSI Architecture and Design		X		
130A	Signal Analysis & Processing	X	X		
130B	Signal Analysis & Processing		X	X	
130C	Signal Analysis & Processing			X	
132	Intro to Solid State Electronic Devices	X			
134	Introduction to Fields & Waves	X			

DUE DATES

- Elective Sheets are due **no later than Friday, May 27, 2022!**
- Students who have not turned in an elective sheet will be placed on a **REGISTRATION BLOCK!**



UC SANTA BARBARA
engineering

Progress Checks

- Can be run on GOLD using the degree audit system.
- GE/College level questions refer to the College of Engineering advisors, coe-info@engineering.ucsb.edu or:
 - Frances Fouch francesf@engineering.ucsb.edu
 - Shariq Hashmi shasmi@engineering.ucsb.edu
 - Sarah Ocampo socampo@engineering.ucsb.edu
- Major level questions refer to the ECE Student Office ugrad-advisor@ece.ucsb.edu

BS/MS Program

- Electrical & Computer Engineering BS/MS
See **Val de Veyra** in the ECE Student Office (Trailer 697, Room 101)
- Materials BS/MS

<https://www.materials.ucsb.edu/academics/bsms-5-year-program>

Department of Electrical & Computer Engineering

BS/MS Programs

BS/MS options available for Electrical Engineering undergraduates:

- BS in EE and MS in ECE: email Val de Veyra, ECE Student Affairs Manager, val@ece.ucsb.edu
- BS in EE and MS in MATRL: see the Materials Department website, [materials.ucsb.edu/academics/bsms-5-year-program](https://www.materials.ucsb.edu/academics/bsms-5-year-program)
 - For students interested in Materials: Early research into requirements is strongly recommended. Materials 100A: Chemistry 1B requirement.
- Applications for the BS/MS in ECE are usually due at the end of the spring quarter of the junior year. As this is an accelerated program, it is expected that all of the required courses for the EE major are completed including all of the junior required courses. GRE exams are not required to apply

Discover Engineering 2020

2021 Fall Career & Internship Fair Science, Technology & Engineering

October 27, 2021
11am-4pm
career.ucsb.edu

Maddie W. Foster
Career Counselor/Peer & Practicum Supervisor

Engineering + Technology

Undocumented Student Liaison



Career Services

Career Peer Advising is available Monday-Friday from 9am-4pm in person and via Zoom for 15-minute sessions. More information at <https://career.ucsb.edu/students#career-advising>

Have your resume and cover letter reviewed via our Document Review system.
See <https://career.ucsb.edu/students#document-review>

Practice your interviewing skills at <https://career.ucsb.edu/students#interview-skills>

For Engineering + Technology career guidance, see <https://career.ucsb.edu/career-paths/engineering-technology> or contact Maddie Foster directly at Maddie.Foster@sa.ucsb.edu

Maddie.Foster@sa.ucsb.edu career.ucsb.edu

Website



UNDERGRADUATE STUDIES


<http://www.ece.ucsb.edu/undergrad/>

This website has all the information regarding the undergraduate program.

For course offerings in ECE, the website is:

<http://www.ece.ucsb.edu/undergrad/courses/>

QUESTIONS?



Beth English
ugrad-advisor@ece.ucsb.edu
or
Val de Veyra
val@ece.ucsb.edu

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