

# BS/MS Program

## Electrical & Computer Engineering

### General Facts about the Program:

- The BS/MS program is an accelerated program: the applicant must be able to complete the program ideally within five years.
- Graduate units taken during your senior year will allow the completion of MS program requirements in the fifth year.
- Before the end of their junior year, interested undergraduate Electrical & Computer Engineering majors may apply for admission to the BS/MS program in ECE. Application packages are available in the ECE Undergraduate Student Office (Trailer 380, Room 101).
- At the end of their senior year, students who have been admitted to the program have the option of filling out a BS graduation form & leaving the program with only a BS degree if all of the requirements are met.
- Students who are denied entry into the BS/MS program may still apply for admission to the regular MS program (application fees apply).

# Checklist for BS/MS Application

- Deadline for all BS/MS application materials is **June 10, 2022**.
- Applications are considered complete when they contain:
  - Application worksheet
  - Statement of Purpose - consisting of 3 separate documents:
    - Statement of Purpose
    - Personal Achievements/Contributions
    - Resume or Curriculum Vitae
  - 3 Letters of Recommendation (with coversheets and ratings - required)
  - Unofficial UCSB transcript
    - Please submit transcripts even without Spring 2022 grades.

## Emphasis options include:

- Computer Engineering – CE
- Electronics & Photonics – EP
- Communications, Controls, & Signal Processing - CCSP

Application for the BS/MS Program in  
Electrical and Computer Engineering  
Fall 2022

Name of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Perm Number: \_\_\_\_\_

**Personal Information**

Birthdate: \_\_\_\_\_ Gender: Female  Male

Citizenship: \_\_\_\_\_ California Resident? Yes  No

Birth City, State and Country: \_\_\_\_\_ Ethnicity: \_\_\_\_\_

**Contact Information**

Permanent Address: \_\_\_\_\_  
(or address you  
may be contacted at  
during summer) \_\_\_\_\_

Permanent Phone: (    ) \_\_\_\_\_ Current Phone: (    ) \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
(or address during  
academic year) \_\_\_\_\_

Umail: \_\_\_\_\_

**ALL APPLICATION  
MATERIALS ARE DUE JUNE  
10, 2022  
(06/10/22)**

For ECE Student Office **ONLY**

Status: UN / OF    Date:     GPA:     Major GPA:

Verbal Raw:     Quantitative Raw:     Analytical Raw:     Writing Raw:

Verbal %:     Quantitative %:     Analytical %:

**GENERAL STRUCTURE OF BS/MS PROGRAM**  
**COMPUTER ENGINEERING**

**FRESHMAN YEAR**

| Fall                      | Units     | Winter                              | Units     | Spring         | Units     |
|---------------------------|-----------|-------------------------------------|-----------|----------------|-----------|
| Chem 1A or 2A             | 3         | ECE 1A                              | 1         | CMPSC 16       | 4         |
| Chem 1AL or 2AC           | 2         | Math, Science, or<br>Engr, Elective | 4         | ECE 1B         | 1         |
| MATH 3A                   | 4         | MATH 3B                             | 4         | MATH 4A        | 4         |
| G.E. Elective or Cmpsc 8* | 4         | PHYS 1                              | 4         | PHYS 2         | 4         |
| WRIT 1E or 2E             | 4         | WRIT 2E or 50E                      | 4         | WRIT 50E or GE | 4         |
| <b>Total units</b>        | <b>17</b> |                                     | <b>17</b> |                | <b>17</b> |

**SOPHOMORE YEAR**

| Fall               | Units     | Winter       | Units     | Spring                     | Units     |
|--------------------|-----------|--------------|-----------|----------------------------|-----------|
| CMPSC 24           | 4         | CMPSC 40     | 5         | ECE 10C/10CL               | 5         |
| ECE 10A/10AL       | 5         | ECE 10B/10BL | 5         | CMPSC 32                   | 4         |
| MATH 4B            | 3         | ECE 15A      | 4         | ECE 152A                   | 5         |
| PHYS 3/3L          | 4         | PHYS 4/4L    | 3         | ECE 139 or<br>PSTAT 120A** | 4         |
| <b>Total units</b> | <b>17</b> |              | <b>18</b> |                            | <b>18</b> |

**JUNIOR YEAR**

| Fall                   | Units     | Winter                 | Units     | Spring                | Units     |
|------------------------|-----------|------------------------|-----------|-----------------------|-----------|
| ECE 154A               | 4         | CMPSC 130A             | 4         | CMPEN Elective        | 8         |
| CMPEN Elective         | 8         | CMPEN Elective         | 4         | G.E. or Free Elective | 4         |
| G.E. or Free Electives | 4         | G.E. or Free Electives | 8         |                       |           |
| <b>Total units</b>     | <b>16</b> |                        | <b>16</b> |                       | <b>12</b> |

**COMBINED SENIOR & GRADUATE YEAR**

| Fall               | Units     | Winter          | Units     | Spring          | Units     |
|--------------------|-----------|-----------------|-----------|-----------------|-----------|
| CMPEN Electives    | 12        | CMPEN Electives | 8         | CMPEN electives | 12        |
| Free Elective      | 4         | Engr 101        | 3         | Graduate course | 4         |
| Graduate course    | 4         | Free Elective   | 4         |                 |           |
| <b>Total units</b> | <b>20</b> |                 | <b>15</b> |                 | <b>16</b> |

**FIFTH YEAR (GRADUATE)**

| Fall             | Units | Winter           | Units | Spring           | Units |
|------------------|-------|------------------|-------|------------------|-------|
| Graduate Courses | 12    | Graduate Courses | 12    | Graduate Courses | 12    |

\*CMPSC 8 is recommended only for students who do not have prior programming experience, as programming experience is a prerequisite for Cmpsc 16.

\*\*PSTAT 120A is offered each quarter. ECE 139 is offered only in Spring quarter and is better suited for future upper division electives for the Computer Engineering major.

Last updated 3/13/20

**GENERAL STRUCTURE OF BS/MS PROGRAM IN  
ELECTRICAL ENGINEERING (FOR STUDENTS WHO ENTERED IN FALL 2016)**

**FRESHMAN YEAR**

| Fall               | Units     | Winter         | Units     | Spring           | Units     |
|--------------------|-----------|----------------|-----------|------------------|-----------|
| Chem 1A or 2A      | 3         | ECE 5          | 4         | CMPSC 16         | 4         |
| Chem 1AL or 2AC    | 2         | Math 3B        | 4         | Math 4A          | 4         |
| Math 3A            | 4         | Phys 1         | 4         | Phys 2           | 4         |
| Engr 3             | 3         | Writ 2E or 50E | 4         | Writ 50E or G.E. | 4         |
| Writ 1E or 2E      | 4         |                |           |                  |           |
| <b>Total units</b> | <b>16</b> |                | <b>16</b> |                  | <b>16</b> |

**SOPHOMORE YEAR**

| Fall               | Units     | Winter       | Units     | Spring       | Units     |
|--------------------|-----------|--------------|-----------|--------------|-----------|
| ECE 10A/10AL       | 5         | ECE 10B/10BL | 5         | ECE 10C/10CL | 5         |
| Math 4B            | 4         | Math 6A      | 4         | Math 6B      | 4         |
| Phys 3             | 3         | Phys 4       | 3         | Phys 5       | 3         |
| Phys 3L            | 1         | Phys 4L      | 1         | Phys 5L      | 1         |
|                    |           | ECE 15A      | 4         |              |           |
| <b>Total units</b> | <b>13</b> |              | <b>17</b> |              | <b>13</b> |

**JUNIOR YEAR**

| Fall                  | Units     | Winter                | Units     | Spring                | Units     |
|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|
| ECE 130A              | 4         | ECE 130B              | 4         | ECE 139*              | 4         |
| ECE 132               | 4         | ECE 137A              | 4         | ECE 137B              | 4         |
| ECE 134               | 4         | ECE Elective          | 4         | ECE 152A*             | 5         |
| G.E. or Free elective | 4         | G.E. or Free Elective | 4         | G.E. or Free Elective | 4         |
| <b>Total units</b>    | <b>16</b> |                       | <b>16</b> |                       | <b>17</b> |

**COMBINED SENIOR & GRADUATE YEAR**

| Fall                  | Units     | Winter                 | Units     | Spring                 | Units     |
|-----------------------|-----------|------------------------|-----------|------------------------|-----------|
| ECE Electives         | 12        | ECE Electives          | 8         | ECE Electives          | 8         |
| G.E. or Free Elective | 4         | G.E. or Free Electives | 8         | ENGR 101               | 3         |
| Graduate course       | 4         | Graduate course        | 4         | G.E. or Free Electives | 6         |
| <b>Total units</b>    | <b>20</b> |                        | <b>20</b> |                        | <b>17</b> |

**FIFTH YEAR (GRADUATE)**

| Fall             | Units | Winter           | Units | Spring           | Units |
|------------------|-------|------------------|-------|------------------|-------|
| Graduate Courses | 12    | Graduate Courses | 12    | Graduate Courses | 12    |

\*ECE 139 and/or ECE 152A may also be taken in the spring quarter of the sophomore year.

# University of California, Santa Barbara

## Coversheet for Statement, Achievements, and Resume/CV

Name \_\_\_\_\_ Quarter \_\_\_\_\_  
Legal Family Name (Surname) First Name Middle Name

Proposed Department \_\_\_\_\_ Emphasis \_\_\_\_\_ Degree \_\_\_\_\_

- Type each of the three required documents below on a separate sheet (i.e., three separate documents).
- 1. **Statement of Purpose:** Give a brief statement outlining your reasons for undertaking a graduate program, your particular area of specialization within the major field, your past academic work, and your plans for future occupation or profession. Also include any additional information that may assist the selection committee in evaluating your preparation and aptitude for graduate study at UC Santa Barbara.
- 2. **Personal Achievements/Contributions:** UC Santa Barbara is interested in a diverse and inclusive graduate student population. Please describe any aspects of your personal background, accomplishments, or achievements that you feel are important in evaluating your application for graduate study. For example, please describe if you have experienced economic challenges in achieving higher education, such as being financially responsible for family members or dependents, having to work significant hours during undergraduate schooling or coming from a family background of limited income. Please describe if you have any unusual or varied life experiences that might contribute to the diversity of the graduate group, such as fluency in other languages, experience living in bicultural communities, academic research interests focusing on cultural, societal, or educational problems as they affect underserved segments of society. or evidence of an intention to use the graduate degree toward serving disadvantaged individuals or populations.
- 3. **Resume or Curriculum Vitae:** List your positions of employment or volunteer work/community service "since high school, either full or part-time, including the hours per week worked and the nature and dates of employment or service"

If you have discussed your plans for graduate study with any UC Santa Barbara faculty, please list their names:

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**UC SANTA BARBARA COVERSHEET FOR HARD COPY LETTER OF RECOMMENDATION SUBMISSIONS**

**THIS PORTION TO BE COMPLETED BY THE APPLICANT**

Mail to the Department of \_\_\_\_\_, University of California, Santa Barbara, CA 93106

The application deadline for the program I am applying to is: \_\_\_\_\_  
See: <http://www.graddiv.ucsb.edu/programs>

Applicant Name \_\_\_\_\_  
Legal family name (surname) First name Middle Name

Proposed Degree \_\_\_\_\_ Emphasis \_\_\_\_\_ Quarter \_\_\_\_\_

**APPLICANT'S WAIVER OF RIGHT TO ACCESS THE LETTER OF RECOMMENDATION**

Name of recommender \_\_\_\_\_

The Family Educational Rights and Privacy Act of 1974 gives students (persons admitted and enrolled in the university) the right to inspect letters of recommendation written in support of an application for admission and financial assistance. In addition, the law permits students to expressly waive the right to inspect letters submitted on their behalf, although such a waiver must be voluntary and cannot be a condition of admission, award, or employment. I, the undersigned, understand that the information provided in this letter may be used by the university in deciding upon admission to graduate study and/or the award of a fellowship or assistantship. I have read and understand the regulation concerning Waiver of Access to Confidential Letters of Recommendation. Having read this information I choose one of the following:

Check only one:

- I hereby waive any and all rights of access to this letter of recommendation**
- I do not agree to waive access to the letter of recommendation**

Applicant: Please note you **MUST** complete the online waiver of right of access for your recommender, even if they are mailing a hard copy letter. The above is indication to your recommender what your waiver decision is. It is your responsibility to log the same answer as above online. If the waiver answer on this sheet differs from the answer in your online application, the University will not consider the letter.

**THIS PORTION TO BE COMPLETED BY THE RECOMMENDER**

**Please attach this form to your letter of recommendation**

The person named above is applying for admission to graduate study and may be applying for financial assistance to the University of California, Santa Barbara. We would appreciate your personal impressions of the candidate's intellectual ability aptitude in research and professional skill. Please comment on the applicant's character, quality of previous work, and promise of productive scholarship. In addition to your letter, please provide the following information:

**Please check one level for each category**

|                            | Upper 1-2% | Upper 10% | Upper 25% | Upper 50% | Lower Half | Inadequate Opportunity to Observe | Decline to State |
|----------------------------|------------|-----------|-----------|-----------|------------|-----------------------------------|------------------|
| Intellectual Ability       |            |           |           |           |            |                                   |                  |
| Imagination & Creativity   |            |           |           |           |            |                                   |                  |
| Ability in Oral Expression |            |           |           |           |            |                                   |                  |
| Writing Ability            |            |           |           |           |            |                                   |                  |

Among the individuals I have know in recent years in the applicant's field I would rank this applicant in the upper \_\_\_\_\_%

Recommender's Name (please print) \_\_\_\_\_

Position or Title \_\_\_\_\_ Institution or Company \_\_\_\_\_

Address \_\_\_\_\_

Email Address \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Please mail this form with your letter of recommendation directly to the department specified above by the applicant.**