MSEE Graduate Handbook
People & Contacts

Graduate Student Success Center (GSSC)

**COE Coordinator:** Dr. Feike Leij  
Feike.Leij@csulb.edu  
562.985.5119

**Faculty Advisor (EE):**  
Dr. Mohammad Mozumdar  
mohammad.mozumdar@csulb.edu

Electrical Engineering Department

**EE Chair:** Dr. Henry Yeh  
henry.yeh@csulb.edu  
562.985.4899  
Department Office: ECS-561  
Administrative Support Coordinator:  
Clarice Ross  
clarice.ross@csulb.edu  
562.985.8050
Items & Responsibilities

GSSC
- Graduate Admission
- Concentrations & Requirements
- Graduation Writing Assessment Requirement (GWAR)
- Advancement to Candidacy
- CPT & OPT

EE Department
- Culminating Experiences
- Signing up for Culminating Experience (Comprehensive Exam, Thesis)
- File to Graduate
COE Resources

Writing and Communication Resource Center, VEC 128B
Program Director: Dr. Maryam Qudrat
maryam.qudrat@csulb.edu
562.985.7818
Hours: M-F 9 a.m.-5 p.m.
*Must make an appointment to review your report.

Library Information & Support EN2-109
COE Librarian: Ms. Hema Ramachandran
hema.ramachandran@csulb.edu
562.985.5749 (Main Library)
562.985.2304 (Dudley Library, EN2-109)
Dudley Hours: M-F 9 a.m.-5 p.m.
Concentrations

- **Power, Control Systems Faculty:**
  Chassiakos, Hamano, Nazari, Shahian, Yang

- **Electronics, Digital Systems Faculty:**
  Khoo, Mozumdar, Teng, Wagdy, F. Wang, R. Wang

- **Biomedical Engineering Faculty:**
  Ary, Druzgalski, Khoo, Mozumdar

- **Communications, Networking, Digital Signal Processing Faculty:**
  Ahmed, Chang, Kwon, Sodagari, Tsang, Yeh, Mozumdar
## Power, Control Systems

### Comprehensive Exam Alternative Plan

<table>
<thead>
<tr>
<th>General Program Requirements (6 units)</th>
<th>Core Discipline Requirements (12 units)</th>
<th>Specialty Elective Courses (12 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE 508, Probability Theory &amp; Random Process (3)</td>
<td>EE 505 Adv Engineering Mathematics for EE (3)</td>
<td>4 courses (12 units) to be selected among the following: EE 503, EE 551, EE 552, EE 553, EE 574, EE 576, EE 583, EE 591, EE 694</td>
</tr>
<tr>
<td>EE 511, Linear Systems Analysis (3)</td>
<td>EE 550 Power Electronc &amp; Applications (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EE 556 Solar Power (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EE 575 Nonlinear Control Systems (3)</td>
<td></td>
</tr>
</tbody>
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Additional Requirements: Students are required to take and pass the comprehensive exam.

### Thesis Alternative Plan

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<tr>
<td>EE 511, Linear Systems Analysis (3)</td>
<td>EE 550, Power Electronc &amp; Applicatns (3)</td>
<td></td>
</tr>
<tr>
<td>EE 698, Thesis or Industrial Project (6)</td>
<td>EE 556, Solar Power (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EE 575, Nonlinear Control Systems (3)</td>
<td></td>
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Additional Requirements: Students are required to complete and defend a thesis under faculty supervision and support of a thesis committee and to submit an acceptable manuscript to the University Library.
# Electronics, Digital Systems

## Comprehensive Exam Alternative Plan

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</table>
| EE 508, Probability Theory & Random Process (3) | EE 526, High Speed Communications Circuits (3)  
EE 534, Mixed-Signal IC Design (3)  
EE 535, VLSI Design (3)  
EE 546, Adv Microproc & Embedded Cntrl II (3) | 4 courses (12 units) to be selected among the following: EE 551, EE 531, EE 532, EE 535A, EE 540, EE 545, EE 566, EE 587, EE 591, EE 694 |

Additional Requirements: Students are required to take and pass the comprehensive exam.

## Thesis Alternative Plan

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| EE 508, Probability Theory & Random Process (3)  
EE 511, Linear Systems Analysis (3)  
EE 698, Thesis or Industrial Project (6) | EE 526, High Speed Communications Circuits (3)  
EE 534, Mixed-Signal IC Design (3)  
EE 535, VLSI Design (3)  
EE 546, Adv Microproc & Embedded Cntrl II (3) | 2 courses (6 units) to be selected among the following: EE 551, EE 531, EE 532, EE 535A, EE 540, EE 545, EE 566, EE 587, EE 591 |

Additional Requirements: Students are required to complete and defend a thesis under faculty supervision and support of a thesis committee and to submit an acceptable manuscript to the University Library.
### Comprehensive Exam Alternative Plan

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</table>
| EE 508, Probability Theory & Random Process (3)  
EE 511, Linear Systems Analysis (3) | EE 506, Thry & Prac Biomedical Instrmtnt (3)  
EE 507, Adv Biomedical Systems (3)  
EE 576, Neural Nets Fuzzy Logic (3)  
EE 583, Digital Image Processing (3) | 4 courses (12 units) to be selected among the following: EE 527, EE 528, EE 574, EE 585, EE 694 |

Additional Requirements: Students are required to take and pass the comprehensive exam.

### Thesis Alternative Plan

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EE 511, Linear Systems Analysis (3)  
EE 698, Thesis or Industrial Project (6) | EE 506, Thry & Prac Biomedical Instrmtnt (3)  
EE 507, Adv Biomedical Systems (3)  
EE 576, Neural Nets Fuzzy Logic (3)  
EE 583, Digital Image Processing (3) | 2 courses (6 units) to be selected among the following: EE 527, EE 528, EE 574, EE 585 |

Additional Requirements: Students are required to complete and defend a thesis under faculty supervision and support of a thesis committee and to submit an acceptable manuscript to the University Library.
### Communications, Networking, Digital Signal Processing

#### Comprehensive Exam Alternative Plan

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</table>
| EE 508, Probability Theory & Random Process (3)  
EE 511, Linear Systems Analysis (3) | EE 545, Computer Comm Networks (3)  
EE 592: Wireless Communications  
EE 585, Adv Digital Signal Processing (3)  
EE 587 - Fiber Optic Networks (3) | 4 Mandatory courses in the area of concentration to be selected from the following: EE 503, EE 527, EE 528, EE 547, EE 548, EE 581, EE 582, EE 583, EE 586, EE 588, EE 591, EE 694, EE 589 |

Additional Requirements: Students are required to take and pass the comprehensive exam.

#### Thesis Alternative Plan

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| EE 508, Probability Theory & Random Process (3)  
EE 511, Linear Systems Analysis (3)  
EE 698, Thesis or Industrial Project (6) | EE 545, Computer Comm Networks (3)  
EE 592: Wireless Communications  
EE 585, Adv Digital Signal Processing (3)  
EE 587 - Fiber Optic Networks (3) | 2 Mandatory courses in the area of concentration to be selected from the following: EE 503, EE 527, EE 528, EE 547, EE 548, EE 581, EE 582, EE 583, EE 586, EE 588, EE 591, EE 589 |

Additional Requirements: Students are required to take and pass the comprehensive exam.
Graduation Writing Assessment Requirement (GWAR)
http://web.csulb.edu/divisions/aa/gwar/

- Passing of the Writing Proficiency Exam (WPE) with a score of 11 or higher. You need to take WPE in Fall semester, otherwise you will not be able to register for Spring semester.

- Students unsuccessful in their first WPE attempt must enroll in a GWAR course and submit a passing portfolio to fulfill the requirement. Students should meet with a GWAR Advisor if they need help selecting an appropriate GWAR course.
Graduation Writing Assessment Requirement (GWAR)

- Graduate students must complete the **GWAR requirement before Advancement to Candidacy**.
- All graduate students (M.A., M.S., M.B.A) who have earned an undergraduate degree from an accredited U.S. university or college, or earned an undergraduate degree from an accredited university from an English speaking country (see GWAR FAQ page for the List of Approved Countries), have satisfied the GWAR at CSULB and do not have to take the GPE.
- Graduate students who scored a 4 or higher on the GRE or GMAT have satisfied the GWAR at CSULB and do not have to take the GPE.
- Graduate students can self-place into a GWAR Portfolio Course (e.g., ENGL 301B, FMD 450, or a portfolio course offered in their major). If they self-place into a GWAR Portfolio Course, they do not have to take the GPE. To self-place, contact a GWAR Advisor by email at GWAR-Advisor@csulb.edu.
- If the student chooses to take the GPE, then self-placement into a GWAR Portfolio Course is no longer an option. Students must follow the pathway where they place once they receive a GPE score.
- GWAR Portfolio Course: Students who receive a score of 8, 9 or 10 must successfully complete one GWAR portfolio course with a “C” or better, and submit a passing portfolio to satisfy the GWAR.
- English 301A Writing Proficiency Course: Students who receive 7 or lower on the GPE must complete ENGL 301A with a grade of “C” or better before enrolling in a portfolio course and submitting a passing portfolio to satisfy the GWAR.
- GPE can be taken only once.
GWAR Placement Exam (GPE) Score Course Pathway

- Take GPE Before Advancement to Candidacy
  - GWAR Placement Exam Total Possible Score 18

- GPE Score 11 or higher
  - Satisfied GWAR Requirement
  - Advance to Candidacy

- GPE Score 8, 9, or 10
  - GWAR Portfolio Course

- GPE Score 7 or Below
  - English 301A Writing Proficiency Course
  - GWAR Portfolio Course

- Satisfied GWAR Requirement
  - Advance to Candidacy
Advancement to Candidacy

- Completion of any deficiency requirement identifies with admission with 3.0 GPA
- Have met the GWAR requirement
- Completion of at least 18 units of graduate requirement within a concentration with GPA of 3.0 or higher
- Selection of culminating experience (comprehensive exam or thesis)
Curricular Practical Training (CPT)

CPT program provides international graduate students in the College of Engineering an opportunity to gain practical experience in their fields of study. To qualify for CPT, the student must have:

- at least one academic year of enrollment in valid F-1 status
- at least 18 units of the required graduate classes
- been Advanced to Candidacy, and
- be in good academic standing.
CPT Cont’d

- Once student is offered a CPT internship opportunity, and upon approval by the office of International Student Services, he/she must complete an independent study agreement and register for Engr. 691 (1 unit) through CCPE with a full-time COE professor who agrees to supervise him/her and meet with the student regularly per an agreed schedule throughout the semester.
- At the end of the semester, a complete technical report, including an overview of the technical areas and activities engaged in, the problems encountered and the solutions provided, must be submitted to supervising professor and must earn a passing grade.
- This class can be repeated up to three times.
True or False?

A student takes courses arbitrarily and then comes to the advisor saying that he/she wants to graduate that semester.  
**FALSE**

Every course must be pre-approved and every step must be completed before approaching the advisor, requesting graduation.  
**TRUE**
Important Note

EE 490 (Special Problems) and EE 405 (Special Topics)

Are NOT ACCEPTED in the graduate program.
Roadmap to MS Degree

- At least 18 units of graduate courses completed @CSULB
  - GPA at least 3.0 (100 and 200 do not count)
  - GWAR

Advancement to candidacy

Pass other 12 units (according to your concentration)
No more than 2 grade “C” during your MS studies
Important Note

A graduate student should always maintain GPA of at least 3.0 in each semester.

Otherwise → Probation
Comprehensive Exam Schedules

Fall
First Friday of Oct

Spring
First Friday of March