# Coursework Requirements

## Required Courses

| | | |
|---|---|---|
| ENGR 800 | Engineering Communication | 3 |
| ENGR 801 | Engineering Management | 3 |
| ENGR 844 | Embedded Systems | 3 |
| ENGR 852 | Advanced Digital Design | 3 |

### Option A

| | | |
|---|---|---|
| ENGR 897 | Research | 3 |
| ENGR 898 | Thesis | 3 |

### Option B

| | | |
|---|---|---|
| ENGR 895 | Applied Research Project | 3 |

| | |
|---|---|
| **Engineering Electives[1]** | **6-15** |
| **Non-Engineering Electives[2]** | **0-6** |
| **Minimum total** | **30 units** |

## 1. Engineering Electives

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|---|---|
| ENGR 446/447 | Control Systems & Labs (3) |
| ENGR 449 | Communication Systems (3) |
| ENGR 451 | Digital Signal Processing (4) |
| ENGR 456 | Computer Systems (3) |
| ENGR 476 | Computer Communications and Networks (3) |
| ENGR 478 | Design with Microprocessors (4) |
| ENGR 845 | Neural-Machine Interfaces: Design and Applications (3) |
| ENGR 848 | Digital VLSI Design (3) |
| ENGR 849 | Advanced Analog IC Design (3) |
| ENGR 850 | Digital Design Verification (3) |
| ENGR 853 | Advanced Topics in Computer Communication and Networks (3) |
| ENGR 856 | Advanced VLSI Design (3) |
| ENGR 857 | Reconfigurable Computing (3) |
| ENGR 858 | Hardware Security and Trust (3) |
| ENGR 890 | Graduate Seminar: Design of MEMS, Computer Forensic, etc (3) |
| ENGR 897 | Research (3) |
| ENGR 899 | Special Study (3) |

Note: International Students have one semester of grace period, after completion of their course work, not including the ENGR 895 or ENGR 898, to request a Reduced Course Load (RCL) with zero units. After this grace period, they will be required to register for 3 units in engineering. Students should speak to an International Student Advisor at OIP if they wish to request a RCL with zero units.

## 2. Non-Engineering Electives:

Courses selected primarily from sciences, mathematics, social science, or business, upon approval of the graduate coordinator.

1. Elective courses must not duplicate subjects used in satisfying the student's undergraduate degree requirement.
2. A program cannot contain more than 9 units of courses with course number below 700 and higher than 400.

## Minimum Prerequisites for conditionally accepted graduate student with a B.S. degree in a program other than Electrical or Computer Engineering:

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|---|---|
| MATH: | MATH 226, 227, 228, 245 |
| PHYS: | PHYS 230/232, 240/242 |
| ENGR: | ENGR 205, 206, 301, 305, 353, 356/357, 478 |