

CMPE-MS Graduate Track/Specialty Area

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| Name of Track: <u> VLSI Design </u> |
| Faculty Member(s) using track: <u> Saraju Mohanty, Song Fu </u> |

Required Courses for the VLSI Track: 9 credits (must include the core course 5730)

| Course Number | Course Name | Credits | Semester Taken |
|------------------|---|---------|----------------|
| CSCE 5610 | Computer System Architecture | 3 | |
| CSCE 5730 | Digital CMOS VLSI Design (core course) | 3 | |
| CSCE 5740 | Topics in Modern Electronic System Design | 3 | |
| CSCE 6731 | Advanced Topics in VLSI Systems | 3 | |

Track Core Courses: Each track will require a minimum of 9 credits to be chosen from a list of at least 3 courses. This list may include specific courses that students must take, provide a choice between a short list of courses, or any combination thereof. To qualify for the master's degree, a student must earn a grade of "B" or better in each of the core and required courses.

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| Other Core Courses Required: <u> 2 </u> |
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| Course Number | Course Name | Credit | Semester Taken |
|------------------|--|--------|----------------|
| CSCE 5510 | Wireless Communications (core course) | 3 | |
| CSCE 5580 | Computer Networks (core course) | 3 | |
| CSCE 5610 | Computer System Architecture (core course) | 3 | |
| CSCE 5640 | Operating System Design (core course) | 3 | |

Track Supporting Courses: Tracks are expected to provide a list of supporting courses. Tracks may require a student to take courses from the supplemental list based on the following:

- for thesis option: The maximum number of required courses across the track (**core and supporting**) should not exceed 21 credits (not including thesis). For MS with thesis, the total number of hours required is 30. This leaves a minimum of 3 credit hours free for the student to choose.
- for course option: The maximum number of required courses across the track (**core and supporting**) should not exceed 21 credits. For MS without thesis, the total number of hours required is 36. This leaves a minimum of 15 credit hours free for the student to choose.
- Only one CSCE 5934 Directed Study course is permitted and CSCE 5932 Internship course may not be included on the degree plan. To continue in good standing, a student must maintain a 3.0 GPA overall.

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| Supporting Courses Required: <u> 2/2 </u> (may include core courses not selected) |
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| Course Number | Course Name | Credit | Semester Taken |
|------------------|---------------------------------|--------|----------------|
| CSCE 5450 | Programming Languages | 3 | |
| CSCE 5520 | Wireless Networks and Protocols | 3 | |
| CSCE 5540 | Introduction to Sensor Networks | 3 | |
| CSCE 5620 | Real-Time Operating Systems | 3 | |
| CSCE 5650 | Compiler Design | 3 | |
| CSCE 5910 | Special Problems | 3 | |
| CSCE 5934 | Directed Study | 3 | |
| CSCE 6731 | Advanced Topics in VLSI Systems | 3 | |

Total Required Courses for Track/Specialty Area: 7/7