Fall 2024
USC Ming Hsieh Department of Electrical and Computer Engineering
1st Semester Course Recommendations

The following lists are recommended courses in the first semester by major/degree programs. The number in parentheses indicates the units per class.

*We recommend no more than two courses (8.0 units) in the first semester with the exception of the MS in ECE-Machine Learning and Data Science and MS in Financial Engineering degree majors.*

**MSEE-General Degree Focus Areas Only**
- Communications: EE 450 (4), EE 503 (4), EE 510 (4)
- Computer Architecture: EE 450 (4), EE 451 (4), EE 457 (4), EE 477 (4)
- Computer Networks: EE 450 (4), EE 457 (4), EE 503 (4)
- Controls: EE 482 (3), EE 503 (4), EE 510 (4)
- Data Science: EE 503 (4), EE 510 (4), EE 483 (4)
- Electric Power Systems: EE 443 (4), EE 444 (4)
- Electromagnetics, Optics, Photonics: EE 471 (4), EE 572 (4)
- Signal and Image Processing: EE 483 (4), EE 503 (4), EE 510 (4)
- VLSI/CAD: EE 457 (4), EE 477 (4)
- Analog, Mixed-Signal, and Radiofreq.: EE 477 (4), EE 536a (4)

**MSEE-Computer Architecture Degree**
- EE 450 (4), EE 451 (4), EE 457 (4), EE 477 (4)

**MS-Computer Engineering (CENG) Degree**
- EE 450 (4), EE 451 (4) EE 457 (4), EE 477 (4), EE 503 (4)

**MSEE-Computer Networks Degree**
- EE 450 (4), EE 457 (4), EE 503 (4)

**MS in ECE-Machine Learning and Data Science Degree**
- EE 503 (4), EE 510 (4), plus EE 538 (2) or EE 541 (2)

**MSEE-Electric Power Degree**
- EE 443 (4), EE 444 (4)

**MSEE-VLSI Design Degree**
- EE 457 (4), EE 477 (4), EE 536a (4)
MSEE-Wireless Networks Degree  
EE 450 (Placement Exam*), EE 503 (4), EE 483 (4)

MS-Financial Engineering (MS-FINE) Degree  
EE 503 (4), EE 518 (4) and/or GSBA 548 (3)

MS-Quantum Information Science  
EE 520 (4), EE 510 (4)

MS-ECE (Analog, Mixed-Signal and Radio-frequency Integrated Circuits)  
EE 536a (4), EE 477** (4)

MS-Applied Physics  
AME 508 (4), plus EE 530 (4) or AME 509 (4)

MS-Electrical Engineering/Engineering Management (EEMG) Dual Degree  
Follow the MSEE-general degree and ISE degree requirements per catalogue policy.  
Please contact your academic advisor for specific details.

Notes:  
- Full-time enrollment for MS students at USC is a minimum of 8.0 units (2-3 courses).  
- Placement Exams are available for the following courses: EE 450, EE 457, EE 477.  
- EE 590 (Directed Research) and EE 598 are not allowed in your first semester.  
- *Students enrolled in the MSEE-Wireless Networks degree program must pass the EE 450 placement exam or register for EE 450. Please note that if you register for EE 450, this course will not count toward your degree.  
- No CSCI courses in the 1st semester: As a first semester ECE graduate student, you are not allowed to register in a CSCI course. No D-clearance will be granted to you. Only continuing ECE students (2nd semester or above) may request D-clearance from the CSCI Department.  
- **Students enrolled in the MS-ECE (Analog, Mixed-Signal...) degree program can opt to take the EE 477 placement exam, and if passed, then would register for EE 577a instead.