

**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 1<sup>st</sup> 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.