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 529 (4), EE 572 (4)
- Signal and Image Processing: EE 483 (4), EE 503 (4), EE 510 (4)
- VLSI (Digital): EE 457 (4), EE 477 (4)
- VLSI (Mixed-Signal): EE 477 (4), EE 536a (4), EE 537 (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 457 (4), EE 477 (4), EE 503 (4), EE 451 (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-VLSI Design Degree
EE 457 (4), EE 477 (4), EE 537 (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 510 (4), EE 520 (4) with EE-599: Quantum Fault Tolerance, Prof. B. Reichardt (4)

MS-Green Technologies Degree
CE 469 (2), ARCH 557 (2), ENE 527 (in lieu of EE 505) (4)

MS-ECE (Analog, Mixed-Signal and Radio-frequency Integrated Circuits)
EE 536a (4), EE 537 (4)

MS-Applied Physics
EE 604 (4), AME 508 (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\textsuperscript{st} semester:** As a first semester ECE graduate student, you would not be allowed to register in a CSCI course. No D-clearance would be granted to you. Only continuing ECE students (2nd semester or above) may request D-clearance from the CSCI Department.