

**Master of Science
GRADUATE PLAN OF WORK Requirements**

1. The MS degree requires at least 30 credit hours. The MS program requires both breadth and depth.
2. Breadth is obtained by at least one course from each of three (3) specialty areas – **circle courses taken in list below.**
Fulfilled with (1) CA (521, 561), (2) SW (566), (3) VLSI (520)
3. Depth is achieved by taking at least two advanced graduate level courses from the major track (EE or CPE) from the list of advanced courses below. – **circle courses taken in list below.**
Fulfilled with 761, 748
4. The major, EE or CPE, is obtained by taking **six (6)** courses from major track from the entire list of courses in ECE. Three hours of thesis can be credited as one course in the major. Only one course in the major track is subject to this substitution.
Fulfilled with ECE 561, 566, 521, 713, 510, 520
5. The student must take 21 hours of ECE courses, 18 hours must be graded, i.e., only one S/U course allowed, (ECE633,634, 682), exclusive of ECE695. ECE695 cannot be used for credit by non-thesis students.
6. Maximum six(6) hours of ECE695 is allowed for MST students – an MST student may have up to nine hours of S/U, e.g., 6 hours ECE695 + 3 hours ECE633.
7. Up to nine hours of graduate-level (500,700) courses outside of ECE may be taken. At most one senior-level (400) course may be included in these nine hours. These courses must be part of a unified plan of study for an advanced ECE degree. These courses should be taken with prior approval of the director of graduate programs or the ECE Graduate Studies Committee.
(As a guideline, note that the common graduate-level, technical courses in CSC, MA, STAT, PHYS, CH, or any engineering department are acceptable. BUS courses that are listed for the CNE program are acceptable. Substitutions for BUS courses require prior approval. It is wise to check with the graduate office before taking courses outside of the above mentioned areas.)
CSC 714
8. Examples for plans of work for various areas can be found at (URL)

Specialty	Course Numbers
Computer Architecture (CPE)	ECE506, ECE 521, ECE 560, ECE 721, ECE 743, ECE 547, ECE 748
Software (CPE)	ECE 517, ECE 566
VLSI Systems (CPE)	ECE 520, ECE546, ECE 704, ECE 741, ECE761
Networking(CPE)	ECE 570, ECE 576, ECE 776, ECE 777
Circuits (EE)	ECE 511, ECE718, ECE 733
Microwave Circuits and Applied Electromagnetics (EE)	ECE 540, ECE549, ECE719, ECE732
Communications (EE)	ECE515, ECE582, ECE 751, ECE 762
Signal Processing and Computational Intelligence (EE)	ECE 513, ECE742, ECE559, ECE763
Robotics, Mechatronics & Instrumentation (EE)	ECE554, ECE754, ECE592R , ECE525
Power Engineering and Control (EE)	ECE 516, ECE 726, ECE550, ECE753
Nanoelectronics and Photonics (EE)	ECE523, ECE530*, ECE538, ECE557, ECE722, ECE723, ECE724 * Required for students majoring in nanoelectronics and photonics.