

M.S. IN COMPUTER ENGINEERING WORKSHEET

Name: _____ Z#: _____ Advisor: _____

Date of Admission: _____ GPA: _____

Prerequisites

List deficiency courses assigned by the Admission Committee, if applicable:

Grade	Semester	Course Number/Name

Degree Requirements

Both thesis and non-thesis options require a minimum of 30 credits. The non-thesis option requires a minimum of 3 core courses and 7 elective courses. The thesis option requires 3 core courses, 5 elective courses and 6 thesis credits.

To satisfy the core courses requirement, students must take one course from each of the following three groups: (I) Computer Architecture & Design, (II) Software Development, and (III) Computer Systems. The courses in each group are listed below.

The CEECS Department offers a rich and diverse selection of elective courses in traditional areas of computer engineering and in the areas of research of the faculty including computer architecture and design, embedded systems, structured VLSI design, design of digital systems, cryptography, computer networks, wireless communications, vehicular networks, IoT and smart systems, parallel and distributed systems, medical information systems, machine learning, artificial intelligence, robotics, and signal processing. Visit the department course schedule for a comprehensive list of elective courses.

(I) Computer Architecture & Design (Minimum of one course)

Grade	Semester	Course Number/Name
		CDA 6132 Multiprocessor Architecture
		CDA 6155 Advanced Computer Architecture
		CDA 6214 Structured VLSI Design
		CDA 6316 Embedded System Design 1
		CNT 6108 Embedded Networked Sensor Systems

(II) Software Development (Minimum of one course)

Grade	Semester	Course Number/Name
		CAP 6018 Multimedia Programming
		CEN 5035 Software Engineering
		CEN 6027 Software Maintenance & Evolution

		CEN 6075 Software Requirements Engineering
		CEN 6076 Software Testing
		CEN 6085 Software Architecture & Patterns
		COP 5339 Object- Oriented Software Design

(III) Computer Systems (Minimum of one course)

Grade	Semester	Course Number/Name
		CAP 5615 Introduction to Neural Networks
		CAP 6010 Multimedia Systems
		CAP 6411 Foundations of Vision
		CAP 6673 Data Mining & Machine Learning
		CAP 6778 Advanced Data Mining & Machine Learning
		CDA 6122 Evaluation of Parallel & Distributed Systems
		CEN 6405 Computer Performance Modeling
		CIS 6370 Computer Data Security
		CNT 6516 Advanced Computer Networking
		CNT 6517 Mobile Computing
		CNT 6528 Vehicular Networks
		CNT 6885 Video Communication
		COP 6731 Theory & Implementation of Database Systems
		EEL 6591 Wireless Networks or CEN 6930/ Wireless Networks

Elective Courses

Grade	Semester	Course Number/Name
		CGS 5937 Graduate Seminar (Mandatory, 0 credits)

Thesis Option:

Grade	Semester	Course Number/Name
		ECM 6971 Master's Thesis Computer Engineering (6 credits)

Student Signature: _____ **Date:** _____

SUMMARY OF RULES FOR MS (COMPUTER ENGINEERING) DEGREE

Minimum Degree Requirements:

Master of Science with Major in Computer Engineering, Thesis Option (30 credits)

1. Requires 6 credits of orally defended written thesis.
2. Requires 24 credits of approved coursework with the following constraints:
 - a. A minimum of 3 credits must be selected from each of the three groups: (I) Computer Architecture & Design, (II) Software Development, and (III) Computer Systems
 - b. A maximum of 3 credits of Directed Independent Study may be used to satisfy the 24 credits of coursework.
3. At least one-half of the credits must be at the 6000 level or above
4. Must have a GPA of 3.0 (out of 4.0) or better.
5. All courses in the degree program must be completed with a grade of "C" or better.
6. Must take one semester of CGS 5937 Graduate Seminar

Thesis Committee (for Thesis Option)

- Composed of at least three faculty members
- At least two members from CEECS Department
- Chair from the CEECS Department

Master of Science with Major in Computer Engineering, Non-Thesis Option (30 credits)

1. Requires 30 credits of approved coursework with the following constraints:
 - a. A minimum of 3 credits must be selected from each of the three groups: (I) Computer Architecture & Design, (II) Software Development, and (III) Computer Systems
 - b. A maximum of 3 credits of Directed Independent Study may be used to satisfy the minimum of 30 credits.
2. At least one-half of the credits must be at the 6000 level or above
3. Must have a GPA of 3.0 (out of 4.0) or better.
4. All courses in the degree program must be completed with a grade of "C" or better.
5. Must take one semester of CGS 5937 Graduate Seminar

Admission to Candidacy/ Online Plan of Study

Students must apply for candidacy as soon as they are eligible. Students should prepare, in consultation with a graduate advisor, an **Online Plan of Study** i.e. the list of courses, for completing their degree requirements. All courses must be approved by the student's advisor.

A student is eligible to apply for candidacy when:

1. A minimum of 9 credit hours as a graduate student have been completed.
2. A minimum of 3.0 GPA in all courses attempted as a graduate student has been maintained.

Normally no more than 15 credit hours of work completed before submitting your Plan of Study will be accepted toward degree program. Students working toward the MS (thesis option) degree may not register for thesis until their Plan of Study has been approved.