

**M.S. IN COMPUTER ENGINEERING WORKSHEET**

Name: \_\_\_\_\_ Z#: \_\_\_\_\_ Advisor: \_\_\_\_\_

Date of Admission: \_\_\_\_\_ Undergraduate Institution/Year: \_\_\_\_\_

GPA: \_\_\_\_\_ Major: \_\_\_\_\_ GRE/Year: \_\_\_\_\_

**Prerequisites**

| Course No. | Course Title                               | Actual Course Title if Not Taken at FAU | Where | Grade |
|------------|--|---|-------|-------|
| CDA 4102   | Structured Computer Architecture <b>OR</b> |   |       |       |
| CDA 4204   | CAD-Based Computer Design                  |   |       |       |
| CDA 3331C  | Intro to Microprocessor Systems            |   |       |       |
| EEE 3300   | Intro to Electronics <b>OR</b>             |   |       |       |
| CDA 4210   | Introduction to VLSI                       |   |       |       |
| STA 4821   | Stochastic Models for Computer Science     |   |       |       |
| COP 3530   | Data Structures & Algorithm Analysis       |   |       |       |
| MAC 2311   | Calculus with Analytic Geometry I          |   |       |       |
| MAC 2312   | Calculus with Analytic Geometry II         |   |       |       |

A minimum of 3-credit hours must be selected from **each** of the three groups below: (I) Computer Architecture & Design, (II) Software Development and (III) Computer Systems. These three groups include the following 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 |

### Additional Courses

| Grade | Semester | Course Number/Name                              |
|-------|----------|---|
|       |          | CEN 5931 Special Topics in Computer Engineering |
|       |          | CEN 6930 Topics in Computer Engineering         |
|       |          |   |

### Thesis Option:

| Grade | Semester | Course Number/Name  |
|-------|----------|---|
|       |          | ECM 6971 Master's Thesis Computer Engineering (6 credits) |
|       |          | COT 6905 Directed Independent Study (maximum 3 credits)   |

### Non-Thesis Option:

| Grade | Semester | Course Number/Name  |
|-------|----------|---|
|       |          | COT 6905 Directed Independent Study (maximum 6 credits) 3 credits must be a research-oriented directed independent study. |

### Other Requirements:

#### RESEARCH PORTFOLIO – Non Thesis Option

Every non-thesis student must maintain a Research Portfolio containing research papers (book chapters, conference or journal contributions accepted or published, patents, directed independent study-based research papers, technical reports) done throughout the student's master's degree studies. Every non-thesis student is expected to have at least one research paper in the Research Portfolio prior to graduation. The portfolio must be approved by a graduate advisor prior to graduation certification.

#### RESEARCH PORTFOLIO – Thesis Option

Every thesis student must maintain a Research Portfolio containing research papers (book chapters, conference or journal contributions accepted or published, patents, directed independent study-based research papers, technical reports) done throughout the student's master's degree studies. The master's thesis is added to the Research Portfolio prior to graduation. The portfolio must be approved by a graduate advisor prior to graduation certification.

Research Portfolio: \_\_\_\_\_  
GPA (at least 3.0) \_\_\_\_\_

Inspected by: \_\_\_\_\_

Advisor 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 listed.
  - b. A minimum of 18 credits of 6000-level courses must be completed.
  - c. No more than 3 credits of directed independent study may be taken
  - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
  - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
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. Every thesis student must maintain a Research Portfolio containing research papers (book chapter, conference or journal contributions accepted or published, patents, directed independent study-based research papers,-technical reports) done throughout the student's master's degree studies. The master's thesis is added to the Research Portfolio prior to graduation. The portfolio must be approved by a graduate advisor prior to graduation certification.

#### 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 (33 credits)

1. Requires 33 credits of approved coursework with the following constraints:
  - a. A minimum of 3 credits must be selected from each of the three groups listed in Option A.
  - b. A minimum of 18 credits of 6000-level courses must be completed.
  - c. No more than 6 credits of directed independent study may be taken.
  - d. One 3-credit, research-oriented directed independent study course must be taken after completion of 18 credits of coursework. At the end of the directed independent study course, the student is expected to submit a paper or technical report to be placed in the student's Research Portfolio.
  - e. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
2. Must have a GPA of 3.0 (out of 4.0) or better.
3. All courses in the degree program must be completed with a grade of "C" or better.
4. Every non-thesis student must maintain a Research Portfolio containing research papers (book chapter, conference or journal contributions accepted or published patents, directed independent study-based research papers, technical reports) done throughout the student's master's degree studies. Every non-thesis student is expected to have at least one research paper in the Research Portfolio prior to graduation. The portfolio must be approved by a graduate advisor prior to graduation certification.

## **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.