

COURSE SYLLABUS

Course Number: COMP3510

Course Title: EMBEDDED SYSTEMS DEVELOPMENT

Credit Hours: 3

Prerequisites: COMP3350 or ELEC 2220

Corequisite: none

I. Course Content/Objectives:

1. Objectives: At the conclusion of this course the student will have an understanding of the techniques essential to the design and implementation of embedded systems and be familiar with the underlying real-time issues.

2. Tentative Schedule and Outline of Course Content.

Characteristics of real-time and embedded systems: 3 classes
Review of key OS features: 2 classes
Methodologies for design, implementation and testing: 5 classes
Exception handling: 3 classes
Concurrent Programming: 4 classes
Inter-task communication and synchronization: 4 classes
Task scheduling algorithms: 5 classes
Memory management: 5 classes
Device driver development: 4 classes
Real-time kernels: 5 classes
Kernel support for network communication: 3 classes
Tests: 2 classes

3. Textbook or assigned readings

Real-time Systems, Jane Liu, Prentice Hall, 2000.

II. Grading and Evaluation Procedures:

Test 1	25%
Test 2	25%
Homework	20%
Final exam	30%

Grading scale:

90-100	A
80-89	B
70-79	C
60-69	D
59 and lower	F

III. Statement related to policies on unannounced quizzes and class attendance and participation.

There will be no unannounced quizzes and attendance will not affect the grade.

Accommodation Statement: Students who need special accommodations should make an appointment to discuss the Accommodation Memo during my office hours as soon as possible. If scheduled office hours conflict with classes, please arrange an alternate appointment time. If you do not have an Accommodation Memo, but need special accommodations, contact the Program for Students with Disabilities in 1244 Haley Center (844-2096 V/TTY).

11/5/01