

## COURSE SYLLABUS

**Course Number: COMP3710**

**Course Title: WIRELESS SOFTWARE ENGINEERING**

**Credit Hours: 3**

**Prerequisites: COMP2210**

**Corequisite: none**

### I. Course Content/Objectives:

1. Objectives: The primary objective of this course is to familiarize students with the principles, methods, and processes of developing software for mobile computers. Upon successful completion of the course, students will have an understanding of the computing constraints imposed by wireless devices; be exposed to tools and processes used in developing software for small embedded systems; and be able to design, implement, and test software for a wireless or handheld computer.

### 2. Tentative Schedule and Outline of Course Content.

Introduction	3 lectures
Main operating systems	
Common hardware architectures	
Software engineering singularities for wireless computers	
Infrastructural support	3 lectures
Software tools	
Processes for embedded software development	
Requirements Analysis and Design	12 lectures
Design methodologies	
User interface	
Components of handheld software	
Embedded system design	
Database design	
File organization	
Implementation	17 lectures
C/C++ review	
APIs	
Event handling	
Memory and power consumption minimization	
Communication technologies	
Software Testing	8 lectures
Testing principles for mobile devices	
Conducting user studies	
 In-class exams	 2 lectures

### 3. Textbook or assigned readings

Andersson, C. 2001. *GPRS and 3G Wireless Applications*, Wiley.  
Brown, G. 1999. *PalmOS Bible*, IDG Worldbook.

II. Grading and Evaluation Procedures:

Test 1	10%
Test 2	15%
Homework	25%
Project	30%
Final exam	20%

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).