

EE382C-9 Embedded Software Systems (Spring 2004)

Instructor: Prof. Brian L. Evans
Lecture Hours: MW 11:00 AM–12:30 PM, ENS 109
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This course presents modern methods for specifying, simulating, and synthesizing embedded systems. Students evaluate and build system designs using Ptolemy Classic and Ptolemy II from UC Berkeley, Advanced Design System from Agilent, and LabVIEW from National Instruments. Examples of signal processing and communications system designs are used.

Prerequisites

1. Algorithms (e.g. EE360C Algorithms),
2. Object-oriented software design (e.g. EE380L-5 Engineering Prog. Languages)
3. Embedded real-time software design (e.g. EE345L Microprocessor Applications & Org. or EE345S Real-Time Digital Signal Proc. Lab)

Topical Outline

Programming languages; assembly; digital signal processors; C and C++; concurrency; dataflow models; process networks; scheduling; software synthesis; discrete-event models; cosimulation

Required Text

S. A. Edwards, *Languages for Digital Embedded Systems*, Kluwer Academic Press, ISBN 079237925X, 2000.

Grading

10% Homework, 20% Midterm #1, 20% Midterm #2, 50% Project

Collaboration on homework assignments and projects is encouraged. Turning in identical homework solutions is considered cheating. The project will consist of a literature survey due at mid-semester and a final report due at the end of the semester.

College of Engineering Drop/Add Policy

The Dean must approve adding or dropping courses after the fourth class day of the semester.

Students with Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY or the College of Engineering Director of Students with Disabilities at 471-4382.