

**Electrical Engineering & Computer Science
University of Kansas**

**EECS 542
Computer Systems Design II
Tuesday and Thursday, 9:30 AM to 10:50 AM
3017 Learned Hall**

Dr. Joseph B. Evans
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204 Nichols Hall, 864-4830

Office Hours: Tuesday and Thursday, 1:30 - 2:30 PM, Nichols Hall
Otherwise by appointment

EECS 541/542 Topics

- Introduction and Overview
- System Design and Specifications
- Review of Software Engineering using Unix Tools
 - shell programming, compilers, lint, make, lex/yacc
- Unix Network Programming
 - sockets, TCP/IP networking
 - multicast IP and ATM
 - security issues
- Graphical User Interface Design
 - Tcl/Tk package
 - interfacing with TCP/IP sockets
- Microcontroller/Peripheral Subsystems
 - hardware interfacing
 - HC11 programming
 - Unix device drivers
- System Prototyping
 - hardware/software co-design
 - PCB layout and fabrication
 - testing and debugging
- Engineering Ethics
- Project Planning and Budgets
- Project Reviews

Texts/References:

- Class notes
- Various Unix tools reference books
- Schematic capture and PCB software documentation

Anticipated Schedule

Date	Topic
January 13	Course Organization, etc.
January 15	Project Planning
January 20	Project Planning
January 22	Project Planning
January 27	Prototype System Design
January 29	Prototype System Design
February 3	Final System Specifications
February 5	PCB Layout
February 10	PCB Layout
February 12	PCB Layout
February 17	PCB Layout
February 19	Linux Device Drivers
February 24	Linux Device Drivers
February 26	Linux Device Drivers
March 3	Linux Device Drivers
March 5	PCB Stuffing
March 10	PCB Stuffing
March 12	Exam
March 17	Advanced Network Programming
March 19	Advanced Network Programming
March 24	Spring Break
March 26	Spring Break
March 31	Hardware/Software System Integration
April 2	Hardware/Software System Integration
April 7	Hardware/Software System Integration
April 9	Hardware/Software System Integration
April 14	Prototype System Testing
April 16	Prototype System Testing
April 21	Prototype System Testing
April 23	Project Reviews
April 28	Project Reviews
April 30	Project Reviews
May 7	Final Exam, 7:30 AM – 10:30 AM

Note that this schedule may be modified in order to adapt to currently unforeseen circumstances.

Grading Policy

The class will be graded competitively according to the percentages listed below. Each assignment within a category will be weighted equally. The course grade thresholds (that is, the numerical grade required to get a particular letter grade) will be set by the instructor to reflect the relative performance of the students. Class attendance is expected unless otherwise indicated.

Exam(s)	35%
Design Project	40%
Homework, Miscellaneous Projects	25%

Note: failure to complete the "Project" portions of the course will result in a grade of F for the course.

3% per day will be subtracted from assignments turned in late, except under extraordinary circumstances and with adequate prior notification of the instructor.

The student must notify the instructor within 48 hours of a missed exam and present adequate justification. If illness is the justification, a doctor's note must be provided to the instructor.

An appeal on grades for individual assignments must be within 14 days of the date the assignment is returned.

Further details of the project grading procedure may be announced in class or via e-mail as required.