ENGIN 112

Intro to Electrical and Computer Engineering

Lecture 1

Course Overview

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Welcome!

° Engineering
  • Designing, building and testing systems
  • Fast-moving, practical

° This semester: computers
  • Learn how computers represent information
  • How computers perform computations
  • Understand how hardware and software work together

° Impress your friends and family!
Electrical and Computer Engineering

° **Computer Engineering**
  - Hardware system design
  - Software design and development

° **Electrical Engineering**
  - Communications
  - Power and electromagnetic systems
  - Semiconductor devices and circuits

° Why do you want to be an engineer?
Engineers in Popular Culture

Doc Brown
*Flux Capacitor*

Dr. Spock
*Time warp, other stuff*

Dr. Myles Dyson
*Skynet*
Administration

- Teaching assistants
- Web site
  - www.ecs.umass.edu/ece/engin112
- Lecture and lecture slides
  - Available the day before lecture
  - Print out and bring to class
- TA office hours
  - TBA
- Discussion sections
Homework and Projects

- **Due before class every Wednesday**
  - Put in box at back of lecture hall

- **Hand-in policy**
  - No exceptions

- **Easiest way to get a good grade in ENGIN112**
  - Come to class and do the homework

- **Four computer projects**
  - Attendance is required
  - LOG INTO YOUR COMPUTER ACCOUNT TODAY
Course Grading and Coming Attractions

- Two exams (25% each)
- Final (30%)
- Homework (10%)
- Projects (10%)

Next Time: Binary Number Systems

Coming Attractions

- Logic gates
- Data storage
- Processors
- Data transmission