
ENGIN 112

Intro to Electrical and Computer Engineering

Lecture 1

Course Overview

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Welcome!

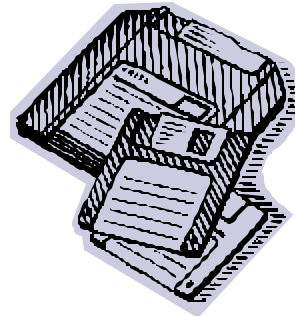
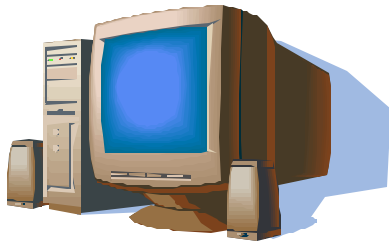
◦ Engineering

- 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



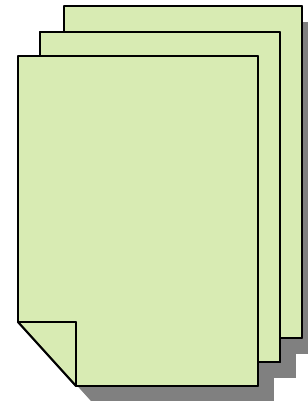
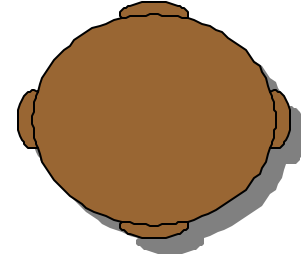
Dr. Spock
Time warp, other stuff



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**