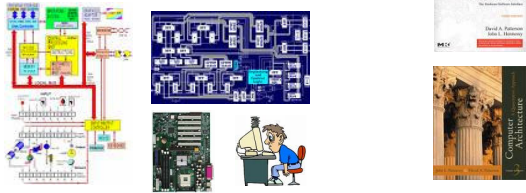
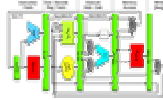


## Computer Architecture



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Contact hours: TBD



## Text

- Computer Organization and Design, The Hardware/Software Interface, Third Edition
  - David A. Patterson & John L. Hennessy
- Computer Architecture, A Quantitative Approach, Third Edition
  - David A. Patterson & John L. Hennessy

### Reference Text

- Computer System Architecture, Third Edition
  - M. Morris M & Mano

## Grading

Instrument	Weight
Assignments (Programming / Written)	10%
Course Project	10%
Quizzes (Un-announced)	20%
Midterms	20%
Final	40%
<b>Total</b>	<b>100%</b>

## Plagiarism Policy

**If you cheat; we will kill you!!!**

## Course Goals

- Introduce the basic theory and practice of computer architecture
- Introduce details of the hardware/software interface
- To provide hands-on experience in coding computer architecture designs
- To expose students to the state of the art computer architectures in the market
- To extend the concepts for pursuing the field as an area of research

## Course Contents

- Course Outline
- References
  - David A. Patterson
  - John L. Hennessy
  - Morris & Mano
  - William Stallings
  - Jahangir Ikram

## Suggestions for Organizing The Course

**I Really Need Them 😊**

## Classes of Computer Applications and Their Characteristics

- Desktop Computers
- Servers
- Embedded Computers

## What Will We Learn In This Course?

- How are programs translated from High-level language to the language of hardware?
- How does the hardware execute the resulting program?
- What is the interface between hardware and software, and how does software instruct the hardware to perform needed operations?
- What determines the performance of a program? How can a performer improve the performance?

## What Will We Learn In This Course?

- Performance in light of original program, the software translation of that program into computer's language, and the effectiveness of the hardware in executing that program.
- What techniques can be used by hardware designers to improve performance?
- Basic Concepts of Modern Computer Design.
- Contents in the Course Outline!

See you in the next lecture with some real stuff!