EECS 322:  *Computer Architecture*

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- **Outline**

1. **Introduction**

2. **Instruction Set Design**

3. **Computer System Design**
   - Computer design methodology. Design levels. Review of gate-level design. Register level components and design. Design CAD systems.

4. **Data Path Design**
   - Basic processor datapath design. Design of Arithmetic Logic Unit (ALU). Design of Fast ALUs. Multipliers and Dividers. Floating Point Units.

5. **Instruction Sequencing and Control**

6. **Pipeline Design**

7. **Memory Systems**
   - Memory technologies. RAM design. Memory hierarchies. Cache memories. Memory allocation techniques and memory management.

8. **Input - Output and Communications**
   - Communication methods. Bus control and timing. More about buses. Interrupts and DMA.

Class Web Site:  http://129.22.16.45/eecs_322