


Midterm 1 Study Guide

Basic Information

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Exam Information

- 50 minutes
- 200 points
- May contain multiple choice and short answer questions



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What Will Be Covered

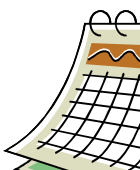
- Exam will cover Parts 1 to 4
- Lab activities
- No question will be asked that is not in the lecture notes
- Download from: athena.ecs.csus.edu/~dcook/35

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Exam Time & Date

- Section 1
 - Wednesday
 - March 2nd
- Section 12
 - Thursday
 - March 3rd




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What you need to bring

- Exam booklets will be provided for the midterm
- So, you only need to bring a pen or pencil
- **No** electronics allowed
- **No** notes allowed



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Data & Memory

Part 1

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Part 1 – Important to Understand

- Binary numbers
- Hexadecimal numbers
- How text is stored
- Memory is an array
- Addresses!



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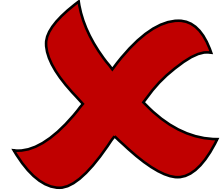
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Part 1 – Don't Worry About

- History of the Hindu-Arabic system
- EBCDIC and the details of Unicode
- History of ASCII
- ASCII character code values



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Processors

Part 2

Part 2 – Important to Understand

- Control Logic Unit
- Execution Unit
- ALU
- Registers
- Encoding Basics



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Part 2 – Important to Understand

- Accessing Data (load, store, transfer)
- x64 registers
- The basic x64 instructions



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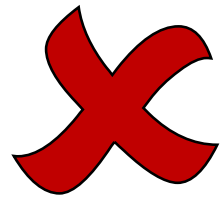
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Part 2 – Don't Worry About

- Example processors
- History of the Intel x86




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Programs

Part 3

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Part 3 – Important to Understand

- Program language generations
- Compilers
- Assemblers
- Linkers
- Assembly basics
- UNIX

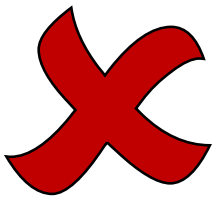


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Part 3 – Don't Worry About

- AT&T vs Intel syntax



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Buffers & Direct Storage

Part 4

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Part 4 – Important to Understand

- Buffers
- **mov** vs. **lea**
- Endianness

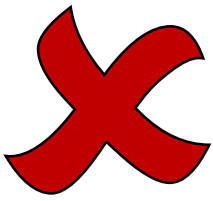


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Part 4 – Don't Worry About

- Example file types – this was just to convey a warning of inconsistency



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