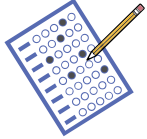


Exam 1 Overview

Basic Information

Exam Information

- 50 minutes
- 150 points
- May contain multiple choice and short answer questions
- But most will have you write some code



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What Will Be Covered

- Exam will cover Parts 1 to 4
- Both Labs – 1 and 2
- No question will be asked that is not in the lecture notes
- Download from:
athena.csus.edu/~cookd/35

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Part 1 – Important to Understand

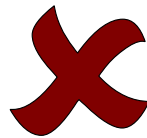
- Binary & hex numbers!
- Notation (why important)
- ASCII
- Integers
- Floating point numbers



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Part 1 – Don't Worry About


- All the different ASCII values
- Unicode and EBCDIC
- How to convert ASCII



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Part 2 – Important to Understand

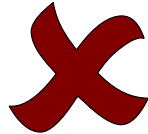
- Components of the processor
- Privileged mode
- Types of operands
- Types of opcodes
- x86 Registers



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Part 2 – Don't Worry About

- CLU over time



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Part 3 – Important to Understand

- Compilers
- Assemblers
- Linkers
- AT&T Assembly



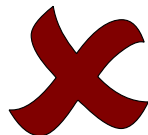
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Part 3 – Don't Worry About

- Intel vs. AT&T assembly



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Part 4 – Important to Understand

- Sign-magnitude
- One's complement
- Two's complement
- Multiplication
- Division
- Sign Extension



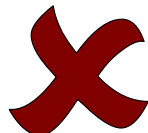
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Part 4 – Don't Worry About

- Signed number extension instructions on the x86 (we haven't used them)



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Part 5 – Need to Know

- Concept of flags
- Unconditional Jumps
- Conditional Jumps
- How (*abstractly*) to implement If Statements, While, For, Switch



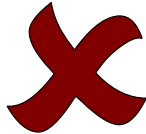
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Part 5 – Don't Worry About

- How each flag is set – in particular that diagram
- Each of the flags – still important for experts
- Actually writing If, While, Switch (we haven't had a lab on it as of yet)



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