Midterm Study Guide

The test will be closed book, closed notes, no calculators. Answer space will be provided; you do not need to bring anything but a writing instrument.

The lectures are:

1 - Introduction
2 - Architecture overview
3 - Binary numbers
4 - MIPS Overview
5 - Computational instructions
6 - Load/Store instructions
7 - Control instructions
8 - Misc. instructions
9 - Procedures
10 - Other ISA's, RISC vs. CISC
11 - Performance Metrics
12 - Implementation: Data path
13 - Implementation: Control
14 - Multi-cycle implementation
15 - Microprogramming

The homework assignments are used to solidify the material presented in lecture and map in the following way:

Homework 1: Lectures 1-2
Homework 2: Lectures 3 - 7
Homework 3: Lectures 2 - 8/9
Homework 4: Lectures 2 - 13

General comments:

- I don't expect you to memorize much -- this won't be a "what's on page 152?" test.
* Unless I specifically mentioned in class you had to memorize something.

- You can expect to have to demonstrate skills you learned to complete the homework.

- You can expect questions that have more than one right answer.

- You can expect at least one question that will cause you to think for a very long time. Do this question last.

My advice for studying for this midterm is to understand the projects 2,3, and 4; and to read the lecture notes posted on the website. You should be proficient at implementation questions and understand how to modify existing code / processor wiring to create new functionality.