# Lecture 4 Learning outcomes

Upon successful completion of this module, you will be able to:

* Represent integer numbers as 32-bit binary
* Classify basic operations of computers
* Express MIPS instruction set
* Convert MIPS instructions to machine language (i.e. binary representation)
* Describe MIPS addressing modes

# Lecture 4 Activities

Lecture 4 study is split into 2-day work.

**Day 1:**

Session I:

        View Lecture 3a: Introduction to ISA

        Study zyBook Ch 2.1-2.3

Session II:

         View Lecture 3b: Number Representation

         Study zyBook Ch 2.4  
Session III:

         View Lecture 3c: MIPS Instructions

Study zyBook Ch 2.5

**Day 2:**

Session I:

Review Lecture 3c: MIPS Instructions

          Study zyBook Ch. 2.5-2.7 (continue from Day 1 session III).

Session II:

         View Lecture 3d: Addressing Modes

         Study zyBook Ch. 2.10 (focus on addressing modes; this is not for credit but highly recommended)

Work on Homework #2

Session III:

         Take Test #1

**Assignment Checklist:** -- due Su 6/13

Z4: zyBook 2.1 – 2.7

H2: Homework #2

Take Test 1 between 6/10 – 6/13