Lecture 1 Learning outcomes

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

- Identify categories/classes of computers;
- Describe the major components of a computer;
- Define the hardware/software interface;
- Define and measure performance (CPI, MIPS, and execution time);
- Evaluate processor performance via Benchmark suites.

Lecture 1 Activities

As stated in the Class Schedule, during the summer intensive session for this 4-unit course you are expected to take 3 50-minute sessions daily for four days a week. Lecture 1 represents a 1-day 3-session workload. I designed the following three sessions with each session mimic a 50-minute lecture meeting. While you can allocate your own schedule and pace for studying, I strongly recommend that you devote at least the time suggested as the minimum requirement for completing the requirements and succeeding in this class.

Session I:

View recorded Lecture (or slides) **Lecture 0: Course Introduction.**
Explore Canvas course site, read Syllabus and pay attention to Course Schedule.
Post self-introduction on Discussions (not for credit but encouraged and appreciated.)
Fill up Background Survey – P1 (10 pts for participation, answers not graded.)
Get zyBooks text ready.
(90%+ students from Summer 2020 said zyBook of great help for asynchronous learning. Unfortunately, it costs some money.)

Session II:

View recorded Lecture (or slides) **Lecture1a: Introdution to Computer Architecture**
Study zyBook text Ch 1.1, 1.3, 1.4.
"Study zyBook" includes doing all participation activities embedded in the online text.
Teamwork (first attempt)
See P2 assignment for group creation/sign-up information – communicate with classmates via Canvas.
Study P2 questions (may answer questions later for discussion with team members.)

Session III:

View recorded **Lecture 1b: Computer Performance**
Study zyBook text Ch 1.6.

Assignment Checklist:

P1: Background Survey – due Th 6/3
P2: Lecture 1 discussions (team) -- due Sun 6/6
Z1: zyBook 1.1, 1.3, 1.4, 1.6 – due Th 6/3