Background
CDA 4502, Computer Organization and Architecture
Lecture 3

Prep Work

Read text book sections:
3.1 – 3.3 thoroughly
3.4 - skip
3.5, 3.6 – skim only
3.8 - thoroughly
3.7 – Read the case study on page 145, we will discuss a similar case study in the class

Reading quiz – (Canvas, due 1 hr. before the class)

Learning Outcomes	Activities	Materials	Formative Assessment
1. Can explain the relation between the power, frequency and heat dissipation of a system. Time: 10:00 – 10:20AM (20min)	Review lecture slides Discuss common heat related issues Derives frequency, power and heat equation Discuss the true false scenarios set in the assessment	PPT Slide 3 – 14 (find in the module 2)	True/false on different system scenario

2. Can explain Amdhal's law of parallelization. Time: 10:20 – 10:35 AM (15min)	Review workload parallelization Discuss common misconceptions about tasks parallelization Discuss the insights of Amdhals law with historic backgrounds	PPT Slides 15 – 20 Video	Whole - Class discussion
3. Identify the parallel parts of a task for a given system Time: 10:35 – 10:55AM (20min)	Review assembly code listing 3.4 Discuss on parallel sections of the code and review the case study on page 145 Work with your group on the assigned case study and submit your report	PPT slide 21 – 24 4 worksheets for 4 groups on different scenarios	Group work and report
Flex Activity 10:55 – 11:00AM (5min)	Discuss the lecture room computer configuration and what type of workloads are good and what types of workloads are bad for that computer.		