CMPT 450 - D100 Computer Architecture

Instructor(s): Alaa Alameldeen, Arvindh Shriraman

Calendar Objective/Description:
Computer Architecture

Instructor's Objectives:
This course teaches the principles of the architecture of computing systems. Topics include: superscalar processor micro-architecture, speculative execution, cache and memory hierarchy, domain-specific accelerators, multiprocessors, cache coherence, memory consistency, implications of technology on architecture, and multi-threading.

Students will be required to read original research papers, complete a few homework assignments and a project.

Prerequisites:
see go.sfu.ca

Topics:
- Superscalar Processors and Speculative Execution
- Cache and Memory Hierarchy
- Domain-Specific Accelerators
- Multiprocessors and Parallel Architectures
- Cache Coherence and Memory Consistency Models
- Impact of Technology on Computer Architecture

Grading:
Tentative Grading Guidelines: Exams: 35%. Homework Assignments: 40%. Project: 25%
Students must attain an overall passing grade on the weighted average of exams in the course in order to obtain a clear pass (C- or better).

Required Books:

Academic Honesty Statement:
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).