CMPT 450 - D100 Computer Architecture

Instructor(s): Alaa Alameldeen, Arrvindh 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 ).