Basic Information
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CSc 522: Parallel and Distributed Programming, Fall 2016

Lectures: MW 8am-9:15am, Gould-Simpson 906

Description of Course

This course will cover a variety of advanced concepts in parallel and distributed computing. Topics will be chosen from:

- Introduction/Getting up to speed. This will include parallel architectures, how to parallelize applications, and synchronization mechanisms.
- Programming abstractions
- Modeling parallel programs, including understanding system noise
- Parallelizing compilers
- Data distribution
- Software and hardware distributed shared memory
- Nonblocking synchronization
- Peer-to-peer computing
- Accelerators
- Interconnection networks
- Power in high-performance computing
- Resilience in high-performance computing
- State-of-the-art high-performance computer architectures

Course Objectives and Expected Learning Outcomes

At the end of the course, the student will be an expert in traditional concurrency as well as key topics in high-performance computing.

Course Prerequisite

CSc 422. We will cover some of the CSc 422 material in the first few weeks; however, most of the class will be graduate-level material.

Instructor and Contact Information

Instructor: David Lowenthal

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(520) 621 4632 dept

Email : `dkl` is my username, the cs domain at UA is the rest; you can figure it out from there.
Office Hours (Lowenthal) : Wed 9:15am-10:45am and Thur