

Instructor: S.-Y. Lee Broun Hall 304
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Class: MWF 9:00 - 9:50 a.m. Broun Hall 306

Office Hours: MW 2:00 - 3:00 p.m. (or by appointment)

Prerequisite: ELEC2220, C/C++ programming and Unix (Linux)

Refs: Scalable Parallel Computing, Kai Hwang, McGraw Hill
 Parallel Computer Architecture, Culler and Singh, Morgan Kaufmann
 Introduction to Parallel Algorithms and Architectures, Leighton, Morgan Kaufmann
 Parallel Computing, Quinn, McGraw Hill
 Parallel Programming with MPI, Pacheco, Morgan Kaufmann
 Parallel Programming in OpenMP, Chandra, et. al., Morgan Kaufmann
 Programming Massively Parallel Processors, Kirk and Hwu, Morgan Kaufmann
 ASC (Alabama Supercomputing Center) User Manual

| Grading: | ELEC5230 | ELEC6230 |
|--------------|----------|---|
| Homeworks | 30 % | 20 % (No late homework will be accepted.) |
| Project | 0 % | 30 % (12/2, Friday) |
| Midterm Exam | 30 % | 20 % (9/30, Friday in class) |
| Final Exam | 40 % | 30 % |

Topics: Introduction
 System Models
 Interconnection Networks
 Shared Memory
 Message Passing
 Parallel Computer Systems
 Programming Environments
 Mapping
 Load Balancing
 Scheduling
 Algorithms

For homeworks and programming,
refer to <http://www.eng.auburn.edu/~sylee/ELEC6230.html>.