

*Instructor:* Peter M. Maurer  
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*Office Hours:* 11:00 - 12:00 MT

*Text:* Advanced Computer Architecture, Kai Hwang, plus notes and handouts.

*Compulsory Prerequisite:* CDA 4100 Computer Org. & Architecture.  
**You are not permitted to enroll in this course without the prerequisite!**

*Course Topics:* Introduction to computer architecture and parallel processing.  
Parallel computer models  
Interconnection network properties  
Memory design for parallel computers  
Principles of pipelining and vector processing  
SIMD array processors and algorithms  
Multiprocessors and Multicomputers  
Supercomputers: Cray, Fujitsu, MPP, Maspar, CM-5  
Data-Flow and Multi-threaded architectures  
Special purpose computers  
Future trends

*Exams:* Test #1: Feb. 10 - 25%  
Test #2: Mar. 24 - 25%  
Test #3: Apr. 25, 10:30-12:30 25%  
Homework: 10%

Term Paper: 15%

