CSE 791: High-Performance Distributed Computing

T/Th, 4:00-5:20

Link 105

Fall, 1999

Syllabus Recap

Instructor Information

- Steve Chapin
- 3-179 CST
- 443-4457
- Office Hours
  - Tuesday/Thursday 3:30-4:00, 5:20-6:00
  - Wednesday 1:00-2:00
  - Others by appointment (open door)

Topic

- High-Performance Distributed Computing
- Confluence of:
  - networking
  - operating systems
  - distributed computing

Class Focus

- Primarily on system level:
  - networking performance
  - threading support
  - hardware configuration
- With an eye towards the application:
  - message-passing libraries
  - support for scientific computing
  - applications are the real *end*

Textbook

- "High Performance Cluster Computing: Applications and Systems" by Rajkumar Buyya, ISBN 0-13-013784-7.
- Available at:
  - bookstore (soon?)
  - amazon.com
  - powells.com
  - bookpool.com

Grading & Late policy

- Grading
  - 75% on programming assignments and homework
  - 25% on in-class participation (including presentations of research papers)
- Late policy
  - No late assignments
  - 3 free late days throughout semester

Honor Policy

- Your code ***must*** be your own
- May discuss concepts with others
- Violation of this policy is grounds for failure from the course

Class Notes

- Will be on-line
  - usually (but not always) before class
  - http://www.cs.virginia.edu/~chapin
  - will move to SU soon
- This is an aid, not a crutch

Course Topics

- Introduction to HPDC/clustering
- Architectural issues
- Software issues
- Programming models
- IEEE TFCC
- Other: Resource Management, Security, Application issues

Course Format

- Part I: I will lecture from the book
- Part II: Students will present papers from HPDC and IPDPS, etc.
- Ongoing: cluster foo, including software installation, benchmarking, programming, kernel building, etc.
- Cluster installed by 30 Sep 99.