CSC630/CSC730
Fall 2012

Course
CSC630/CSC730 Parallel and Distributed Computing

Course Homepage
http://www.cs.usm.edu/~zhang/csc730
It provides more details about topics, schedule, assignment/project requirements, office hours, supplementary materials and other related resources.

Meeting Time & Location
5:10 - 7:45PM Tuesday
Classroom: TEC 101

Instructor
Dr. Joe Zhang

Contact Information
Email: chaoyang.zhang@usm.edu
Phone: (601) 266-5510

Office
Tec 214A

Office Hours
2:30– 4:30PM Tuesday or by appointments

Prerequisites
Background in computer system, algorithms and C/C++ programming

Textbook


Course Description
This course introduces fundamental concepts, techniques and tools of parallel computing to people carrying on graduate work or expecting a career involving high performance computing.

Topics to be covered include:
- Parallel computer architectures
- Communication operations
- Parallel algorithm design
- Performance and scalability
- MPI and OpenMP programming
- Matrix computation and sorting algorithms
- Selected topics

Objectives
Upon completion of the course, students will
- be familiar with the fundamentals of the system architecture and software of parallel and distributed computing
- be able to design and analyze parallel algorithms for a variety of problems and computational models
- have experience with the implementation of parallel applications on several platforms
- be able to measure, tune, and report their performance

Resources
Access to the high performance computing systems in the School of Computing at Southern Miss and at the Mississippi Center of Supercomputing Research (MCSR)
http://www.mcsr.olemiss.edu/
Grading

Your course grade consists of 3 components:

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Two assignments</td>
<td>30%</td>
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<tr>
<td>One project</td>
<td>40%</td>
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<tr>
<td>Midterm and final exams</td>
<td>30%</td>
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Course grading scale:
- 90 to 100: A – Excellent work
- 80 to 89: B – Good work
- 70 to 79: C – Average work
- 60 to 69: D – Inferior work
- 0 to 59: F – Fail

Assignments

All assignments and projects are mandatory for all students. The requirements and due dates are provided in the handouts or on the course homepage.

Attendance

Students are expected to attend all classes.

Academic Honesty

Students are expected to do their own work on all assignments, projects and tests except the assignments are indicated as team work. Assignments that appear to be substantial duplicates of other submitted student work will be treated as instances of academic misconduct.

The following text is extracted from the USM Undergraduate Bulletin:

"When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students.

In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered by The University of Southern Mississippi."

DAD Policy

If a student has a disability that qualifies under the American with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

Address:
The University of Southern Mississippi
Office for Disability Accommodations
118 College Drive # 8586
Hattiesburg, MS  39406-0001
Voice Telephone: (601) 266-5024 or (228) 214-3232  Fax: (601) 266-6035
Individuals with hearing impairments can contact ODA using the Mississippi Relay Service at 1-800-582-2233 (TTY) or email Suzy Hebert at Suzanne.Hebert@usm.edu.