

CS 6643 Parallel Processing Syllabus, Spring 2010

This Syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and is as accurate and complete as possible. I reserve the right to make any changes I deem necessary and/or appropriate. I will make my best efforts to communicate any changes in the syllabus in a timely manner. Students are responsible for being aware of these changes.

Instructor: Dr. Whaley (whaley@cs.utsa.edu)

Office: SB 4.01.12

Office Hours: TR 3-4PM

Office Phone: 458-5545

Class homepage: www.cs.utsa.edu/~whaley/teach/cs6643/

Class hours: TR 5:30-6:45PM

Classroom: SB 3.02.10A

- Textbook** Introduction to Parallel Computing, second edition by Grama, Gupta, Karypis & Kumar.
- Prereq** CS 5513 Computer Architecture & CS 5633 Analysis of Algorithms. We will be programing in a Unix environment, using ANSI C and make.
- Grading** There will be 2-3 exams (most likely 2). The final may be comprehensive, as determined by the instructor. If the final is comprehensive, the instructor may choose to allow students whose grades are above a certain minimum to skip the comprehensive portion. The exact policy will be announced in class prior to the final exam. Exams will account for 40-80% of the students grade, with the remainder coming from assignments and class participation (class participation will not exceed 10% of grade). Students are expected to be able to fully explain the workings of their own programs, and may be called upon to do so. If they cannot, no credit will be given for that assignment.
- Attendance** You are responsible for all material presented in class. Exams and due dates will be scheduled in advance. A grade of zero will be recorded for missed exams unless prior arrangements are made (only allowed in extraordinary circumstances). Assignments turned in after the due date, but before the beginning of the next scheduled class will be penalized 10%. Assignments will not be accepted that are more than one class period late (resulting in a grade of zero).
- Cheating** Students are encouraged to discuss programs in a general way to gain greater insight. Copying another's code, writing code for someone else, or allowing another to copy your code are cheating, and can result in a grade of zero for all parties. Therefore, take precautions so that your old printouts, unattended screen, etc. are not available to other students. Discussing the details of the solution or showing/examining actual code

are not acceptable. If you are in doubt whether an activity is permitted collaboration or cheating, ask the instructor.

- Decorum** Students are expected to refrain from side conversation or other distracting behavior in class. Students should arrive on time for class; if late, come in quietly with a minimum of disturbance. All cell phones/pagers/PDAs/etc. should be turned OFF before the beginning of class, and not be consulted in any way during class. The classroom computers should likewise have their monitors turned off at the beginning of class, and not be consulted unless instructed to do so by the instructor. During testing, any such consultation may result in a grade of zero. Violations of this policy will minimally result in expulsion from the classroom, and repeated violation will result in expulsion from the course.
- Email** Questions about lectures, homework and course organization may be sent to the instructor . I cannot guarantee an immediate response, but will address the issue through direct response, general announcement, or a suggestion to visit during office hours. Last minute questions (i.e. sent the night before an assignment is due) may not be answered before class begins, so tackling problems early is encouraged.
- Regrading** If you believe I have made an error in grading your exam or assignment, you may submit the graded work along with a written request for reconsideration. You must explain in writing clearly and succinctly the reasons your grade should be changed. In fairness to other students, I cannot vary the grading criteria on an individual basis, though suggestions may be taken into consideration for future classes.
- Objectives** This course will introduce students to the fundamentals of explicitly parallel programming. This includes the types of explicit parallelism, the general models used in parallelization, as well as practical usage. The course will provide at least a basic working knowledge of the three main parallel programming paradigms: (1) Shared memory programming with OpenMP (2) Shared memory programming with pthreads, and (3) Distributed memory programming with MPI.
- Material** We will cover material presented in Chapters 1-7 and appendix A. We may also present some material from Chapter 8.
- Disability** If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge that you contact University Disability Services (DS), Multidisciplinary Studies Building, Room 2.03.18, 210-458-4157 (Voice), 210-458-4981 (TTY), 210-458-4980 (Fax), homepage: <http://www.utsa.edu/disability/>. Please bring a letter to me from the DS indicating your need for academic accommodations within the first week of class. The syllabus and other class materials can be made available in alternative format upon request.