

CSCI 3366 (Introduction to Parallel and Distributed Processing), Fall 2013

Syllabus

1 Course description

This course is an introduction to parallel and distributed programming, including both the concepts and their application. Course content will include discussions of different types of parallel machines and machine models, the design and analysis of parallel algorithms, and the development of parallel programs using representative programming environments (e.g., C with OpenMP and C with MPI).

2 Basic information

Class meeting times and location

- MW 3:55pm – 5:10pm, HAS 340

Prerequisites

- CSCI 2320, or consent of instructor

Instructor contact information

- Dr. Berna Massingill
- Office: HAS 201L
- Office phone: (210) 999-8138
- E-mail: bmassing@cs.trinity.edu

Office hours

A current schedule of office hours can be found on my home Web page (<http://www.cs.trinity.edu/~bmassing>). If I'm not in my office during office hours, I should be somewhere in the building, perhaps in one of the labs helping another student, and there will often be a note on my door saying where to find me.

In addition to scheduled office hours, you're welcome to drop by and see if I'm in my office and free to talk, or you can make an appointment by calling me or sending me e-mail.

E-mail is almost always a good way to reach me; I normally check it fairly often and reply promptly.

3 Course materials

Textbook

- Timothy G. Mattson, Beverly A. Sanders, and Berna L. Massingill. *Patterns for Parallel Programming*. Addison-Wesley, 2004.

Web page

Most course-related information (this syllabus, homework and reading assignments, etc.) will be made available via the Web. The course Web page is a starting point for Web-accessible course material; you can find it linked from my home page (<http://www.cs.trinity.edu/~bmassing>) or directly at http://www.cs.trinity.edu/~bmassing/Classes/CS3366_2013fall/HTML.

4 Course requirements

Grading

Grades in this course will be determined by the results of several homework assignments, a project, and class participation, weighted as follows.

Component	Maximum points
Homework	about 150
Project	80
Class participation	20

Numeric grades will be calculated as a simple percentage, by dividing total points earned on the above components by total points possible. These numeric grades will then be converted to letter grades based on a curve, but in no case will the resulting letter grades be worse than students would receive based on the following scheme.

Numeric grade	Letter grade
90 – 100	A-/A
80 – 89	B-/B/B+
70 – 79	C-/C/C+
60 – 69	D/D+
0 – 59	F

Homework assignments

Homework (most if not all in the form of programming assignments) is a crucial part of this course; much of what you learn will likely be learned in the course of completing the programming assignments. Detailed requirements will be provided as part of each assignment; due dates will be announced via the course Web page. You are strongly encouraged to use the department's network of Linux machines, but unless otherwise specified for individual assignments, you may use any other system that provides a suitable environment.

Project

As part of the course, students must also complete a significant project approved by the instructor and present it to the class; students may work individually or in groups of two. Detailed requirements for the project will be described separately and will include program code (or other “deliverable”), a short written report, and a presentation to the class.

Notice that although there are no exams in this course, we will use the time scheduled for a final (December 16 at 8:30am) for project presentations. Please plan accordingly (i.e., avoid scheduling anything else for that time).

Attendance

Regular class attendance is strongly encouraged; class participation grades will be based largely on attendance.

E-mail

Course-related announcements will sometimes be made by sending e-mail to the Trinity e-mail addresses of all registered students. Students are strongly encouraged to read mail sent to their Trinity addresses frequently.

Late and missed work

Unless otherwise stated for a particular assignment, homework will be accepted up to one class period late, *but no more*, at a penalty of 10 percent off per working day. This penalty may be waived or additional time allowed *at the instructor's discretion* in cases of illness or conflict with a university-sponsored activity or religious holiday.

If you have unusual circumstances (as we all sometimes do), please discuss these with me as far in advance as possible.

Academic integrity at Trinity

All students are covered by a policy that prohibits dishonesty in academic work. Under the Honor Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a punishment within certain guidelines if a violation has been verified. Students who are under the Honor Code are required to pledge all written work that is submitted for a grade: “On my honor, I have neither given nor received any unauthorized assistance on this work” and their signature. The pledge may be abbreviated “pledged” with a signature. For electronically submitted work, you should include the text — either the full version or just “pledged” — somewhere in what you submit.

Collaboration and academic integrity in this course

Unless otherwise specified, all work submitted for a grade (homework assignments and projects) must represent the student's own individual effort (or that of the members of the group, for a group project). Unless otherwise stated, all submitted work will be considered pledged work.

Discussion of homework assignments among students is allowed, but not to the point where detailed answers are being written collectively. If you are working with another student in a lab, seeing another student's answers may be unavoidable, but please do *not* share answers electronically. If you are uncertain about whether a particular level of collaboration is acceptable, please ask for clarification. Graded papers and sample solutions from previous semesters (homeworks) are off limits. Answers that are identical beyond coincidence (either to another student's work or to a sample solution from a previous semester) will be considered to be in violation of the Honor Code, and *will result in appropriate action*. You are responsible for the security of your work, both electronic and hard copy.

Please also note when you turn in an assignment whether you sought help with it from other students or faculty (e.g., “J. Random and I worked on this assignment together” or “I got help with this assignment from one of the ACM tutors”).