Syllabus
CSC 770 – Parallel Computing
Spring 2024

Time & Place   Tuesday   6:30 P.M. - 9:10 P.M.   Room 1N 111

Instructor   Dr. Feng Gu (Email: Feng.Gu@csi.cuny.edu)

Office Hours   Tuesday 4:30 P.M. - 6:00 P.M.

Thursday 11:10 A.M. - 12:40 P.M. or by appointment

Course Page   http://www.cs.csi.cuny.edu/~gu/teaching/courses/csc770/csc770.html

Textbook   Introduction to Parallel Computing, second edition by A. Grama et al. Pearson Addison Wesley. ISBN: 978-0-201-64865-2. (Required)

Using MPI - 2nd Edition: Portable Parallel Programming with the Message Passing Interface (Scientific and Engineering Computation) by William Gropp, Ewing Lusk, Anthony Skjellum. MIT Press. ISBN: 0262571323. (Reference)

Course Description   This course will cover the fundamentals of parallel computing, including parallel computer memory architecture, parallel programming models, and parallel algorithms design etc. Some numerical and combinational algorithms such as FFT computation, odd-even merge sort, bitonic sorting, and matrix computation etc. will be presented and their parallel performance will be analyzed in detail. In addition, students will use CSI's cluster for the programming and project parts.

Prerequisites: Knowledge of C or C++, CSC 326

Lab Assignments   The course will include programming assignments and the project. Students will be asked to write appropriate scripts, compile and run the programs in the environment of CSI's supercomputer, evaluate the running results or solutions, and design parallel programs.

Labs and the project will be assigned during class and posted on the course Web-page:http://www.cs.csi.cuny.edu/~gu/teaching/courses/csc770/csc770.html.

Open lab schedules can be found at www.csi.cuny.edu/studenthelpdesk. You can also use computers in the library. The username and password to access the computers are your firstname.lastname (e.g., john.smith) and your date of birth using two digits for month, day, year without periods or spaces (e.g., 051880). If you have any questions about the computer access, please see Tony in 1L204.

Grading   The course will include homework assignments, programming assignments, and the midterm exam the, the final project, and the final exam. The total grade is broken down as follows (subject to change):

homework assignments – 20%, programming assignments – 20%, midterm exam – 20%, final project – 20%, and final exam – 20%.

Last Date for Withdrawal	Wednesday, February, 14, 2024, Last day to drop without permission of an instructor or chairperson, please double check all the drop dates (such as, with "W", without "W", tuition refund percentages) with the registrar's office.
Others	**Class participation** is essential to succeed in this course.

All students are expected to do the homework assignments and programming labs.

Homework assignments and programming assignments are due at the start of class on their due date. If you won't be present in class on that due day, turn in the homework earlier to the instructor's office or by email.

Late submission: Homework or programming assignment submitted up to 1 week late will receive a 20% penalty. Homework or programming assignment submitted up to 2 weeks late will receive a 40% penalty. NO Homework or programming assignment will be accepted later than two weeks after due date.

Due to limited class time, only a representative set of homework problems can be assigned. It is highly recommended that you do all the problems after each covered chapter.

SCHOOL POLICY on Academic Integrity, Plagiarism, and Cheating - Integrity is fundamental to the academic enterprise. It is violated by such acts as borrowing or purchasing assignments (including but not limited to term papers, essays, and reports) and other written assignments, using concealed notes or crib sheets during examinations, copying the work of others and submitting it as one's own, and misappropriating the knowledge of others. The sources from which one derives one's ideas, statements, terms, and data, including Internet sources, must be fully and specifically acknowledged in the appropriate form; failure to do so, intentionally or unintentionally, constitutes plagiarism. Violations of academic integrity may result in a lower grade or failure in a course and in disciplinary actions with penalties such as suspension or dismissal from the College.

The work you turn in MUST BE your own personal work, composed and written by you. No plagiarism. MY Academic Integrity Policy – Copying someone else's computer code, even though you changed the variable names, is called plagiarism. All plagiarized work will be given a 0 to both the copier and the copyee.

NO collaboration is allowed in the in-class exams (exams, and final exam).

Disclaimer	This syllabus represents a general plan for the course and deviations from this plan may be necessary during the duration of the course.