

University of Delaware
Computer and Information Sciences & Electrical Engineering

CISC829 -- Spring 2007

Parallel Algorithms

Instructor: Dr. Errol L. Lloyd
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Office Hrs: Monday: 3:00-4:00
Tuesday: 2:00-3:00
By appointment

Text: JaJa, J., *An Introduction to Parallel Algorithms*, Addison-Wesley, 1992.

References: Various papers that will be handed out.

Homework: There will be 8 to 10 homework problems, ranging in difficulty from easy to difficult. All problems will be solved individually.

In solving these problems the following are considered cheating and will be dealt with accordingly: looking the solution up in any source other than those listed above; looking up the solution by locating a paper in the literature; looking in any way at solutions from prior years or from other courses; posting the problem on the Internet, seeking a solution; etc. You *may* ask others for clarifications of the problem statement. If in doubt, ask the instructor.

Each student will be involved in grading one homework problem. Separate instructions will be provided for how this will be done.

Talk: Each student will give a 25 minute talk on a mutually agreeable topic related to parallel algorithm design and analysis.

Grading: Homework: 75% more or less
Grading: 5%
Talk: 20%

Class participation - this is the more or less

Exam: No exam is currently scheduled, however the instructor reserves the right to give a final exam on the last day of class. IF an exam is given, then the grading scale will be revised as follows: Homework – 55%, Grading – 5%, Talk – 20%, Exam – 20%

Course information source

<http://www.cis.udel.edu/~elloyd/cis829PA.html> -- the course webpage. Copies of assignments, announcements, problem solutions, etc may be found here.

Objectives of the course

1. To give the student a good working knowledge of important parallel algorithms.
2. To give the student a good working knowledge of techniques used in the design of parallel algorithms.
3. To give the student experience in designing parallel algorithms. In particular, in the use of various techniques used in such design from a theoretical perspective.
4. To provide the student with a basic understanding of some complexity issues associated with the development of parallel algorithms.