

CSC 487 - Topics in Parallel and Distributed Computing

Instructor : Fikret Ercal - Office: CS 314, Phone: 341-4857

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Office Hours: posted on the instructor's homepage

**If the instructor is late for the class, students are expected to wait ~5 minutes before they leave the classroom.

Textbook:

There is no required textbook for this class. Papers from the current literature will be studied

Required background: CS 387 or equivalent

Course Description: Introduction of parallel and distributed computing fundamentals and advanced research topics. Students present research papers selected from the current literature on P & D computing paradigms. A term paper and oral presentation are required

Objectives: Parallel processing is becoming the norm rather than the exception. Computing in the future will most likely be massively parallel. This class will focus on the new developments and trends in this area. Revolutionary as well as conventional approaches to massively parallel computing will be studied; some examples are **nanoscale computing, DNA computing, quantum computing, GPU Computing, and Grid Computing**. There will be class presentations and informal discussions on selected articles from respected journals such as *Science*, *IEEE Trans. on Parallel & Distributed Systems*, and *J. of Par. and Dist. Computing*.

Project Presentations:

Students will make at least two presentations on a research topic of their choice. A list of potential topics will be provided. Since this is a graduate level class, attendance and participation are very important.

Special needs: Any student inquiring about academic accommodations because of a disability will be referred to Disability Support Services (<http://dss.mst.edu/>) so that appropriate and reasonable accommodative services can be determined and recommended.

Grading will be based on:

1 Test (200), 2 presentations (2 x 100), and a final report (100)