FALL 2005 NEW COURSE
OPEN TO ALL GW STUDENTS

DISTRIBUTED AND
CLUSTER COMPUTING

Prof. Jonathan Stanton <jstanton@gwu.edu>

Thursday 7:10pm - 9:40pm  Room: TBD  CSCI 235 CRN: 16730

First class meets Thursday, September 1st.

Description: This course will be a hands-on experience with building, managing, programming and analyzing distributed and clustered computers. We will study the architecture and network design of clusters for both high-performance computing (often used by scientists and engineers) as well as for high-availability computing (often used by businesses). You will learn how to solve problems in distributed naming, system management, benchmarking, and authentication. You will get experience writing and optimizing programs for clusters using standards such as MPI, OpenMP, and Grid technologies.

This course will be taught through a combination of lectures, reading and discussion of papers, programming and system configuration exercises, and a variety of hands-on tasks involving the GW Herd cluster (60+cpus) administered by the CS department.

Requirements: This course is a graduate and advanced undergraduate course intended for both CS students and students in the sciences who are using, or anticipate using, high performance computers in their work.

The expected pre-requisite is some past experience programming.