

SUMMER 2012

Computer Science

Special Topics

CS 491/591 - 201

Mondays, Wednesday, Fridays

3:40 – 5:30 p.m.

Parkinson 108

Instructor -

Dr. Dunren Che

Grid Computing and Cloud Computing

The theme of this course is Cloud Computing, which represents the most recent major shift in computing and Information Technology strategy – part technological innovation and part financial strategy. Cloud Computing (CC), however, is not only highly related to but actually assimilates most of its technical ingredients from Grid Computing (GC). Therefore, this course brings both subjects under the spotlight of classroom discussion, with roughly 40% of effort (class time and workload) allocated to GC and the remaining percentage to CC.

The course will first provide an in-depth introduction to Grid technologies, and then transit to Cloud Computing. It will provide foundational knowledge in Cloud Computing components, foundational technologies, architecture, design, and business value. Attendees are provided with a broad survey of Cloud Computing concepts and given an opportunity to explore Cloud from multiple angles. Concepts are reinforced through analysis of real world case studies and group discussion. Graduate attendees will be required to read recently published research papers and make presentations.

Grading: Will consist (tentatively) of 2 term exams and projects and student presentations.

Prerequisite: No formal requirement, but moderate programming knowledge (such as CS220/330) is assumed.

Textbook: TBA (new subject & course; still investigating best book to be used)