**CIS 525 Software Development of Parallel and Distributed Systems Fall 2008**

**Lecture 15: Tuesday, October 21, 2008**

Midterm Take Home Exam

**Lecture 16: Thursday, October 23, 2008**

1. **Concepts of Bi-similarity in Petri nets (chapter 10.2; pp. 143-146):**
2. Strong bi-similarity (nets without abstraction) - definition
3. Interleaving bi-similarity vs. Step bi-similarity – definition and related examples
4. Branching bi-similarity –definition and related examples
5. Example of the protocol for customer service in supermarket.
6. **Spectrum of modeling alternatives ranging from P/T nets to CP nets:**
7. Example of the resource allocation problem
8. Several versions of the resource allocation problem with P/T nets and CP nets
9. Formation of functions that control enabling transitions and distribution of resources.
10. **Reductions in Petri nets:**

a). six rules of reduction

b). example showing application of reduction rules.

1. **Characterization of the Free-choice Nets:**
2. Characterization of state machines
3. Characterization of the marked graphs
4. Characterization of Free-choice nets
5. Examples of nets in support of these classes of models.