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

**Lecture 19: Tuesday, November 4, 2008**

1. **Process nets vs. Petri nets:**
2. definition and example
3. li and co relations for process nets.
4. **Hierarchical Colored Petri nets:**
5. example of phone system modeled as hierarchical Colored Petri net
6. specification of multi-area phone system.
7. **Siphons and traps in Petri nets.**
8. Computing siphons and traps in Petri nets.
9. Deciding liveness, non-liveness, deadlock-freeness in Petri nets.

**Lecture 20: Thursday, November 6, 2008**

1. **Representation of time in Petri nets:**

a). time inscriptions assigned to transitions

b). timestamps assigned to places

c). equivalence of both representations of time in Petri nets

d). strong and weak semantics of time in Petri nets

e). computing reachability graph for timed Petri nets.