Institut for Matematik & Datalogi
Syddansk Universitet

February 3, 2012
JBJ

Network Programming DM817) — Ugeseddel 2

Lectures in Week 5 We covered several applications from Chapter 1, introduced basic definitions as well as problems that we will be addressing during the course. We also covered Sections 2.4 and 3.5 in Ahuja as well as 3.1-3.5 in BJG. Notice that the defintion of the residual network is different in the two books (Ahuja does not treat lower bounds). We shall use the definition from BJG (which coincides with Ahuja when lower bounds are zero). Note that you are expected to have read the rest of Ahuja Chapter 1-4 yourselves (if you do not know the material already).

Problems for Wednesday February 8, 2012: I expect you to have looked at all exercises before the class and for those that you could not solve, you should be able to say what prevented you from getting through!

- Ahuja 1.1, 1.2, 1.4, 1.5, 1.8, 1.9, 2.12, 2.21 (see definition of bipartite graph on page 31), 2.45, 2.51.
- Try to show that a directed graph is bipartite (same definition as for undirected graphs) if and only if it has no directed cycle of odd length.
- BJG problems 3.2, 3.7, 3.8.

Lectures February 7 and 10, 2012:

- Ahuja 5.2-5.6. You have seen some of this in other courses.
- Ahuja 6.1-6.5. See also BG: 3.5.
- Selected applications from Ahuja 6.2.
- Ahuja 6.6-6.7.
- Ahuja 7.1-7.6 (corresponds to BJG 3.6)

Problems for February 15, 2012: They may change a little before next week, but most of these will be posed.

- Ahuja 3.25, 3.27, 3.48, 3.52, 3.53, 3.54, 4.13, 4.37, 6.1, 6.2
- Ahuja 6.22, 6.26, 6.30,6.33, 6.34, 6.35.