Outline for May 20, 2013

Reading: §17.3, 18, [SMB06]. Assignments due: Homework #4, due May 24, 2013

1. Capacity and noninterference
   a. When is bandwidth of covert channel 0?
   b. Noninterference sufficient but not necessary
   c. Analysis
   d. Measuring capacity
2. Mitigating covert channels
   a. Preallocation and hold until process terminates
   b. Impose uniformity
   c. Randomize resource allocation
   d. Efficiency/performance vs. security
3. Assurance
   a. Trustworthy entities
   b. Security assurance
   c. Trusted system
   d. Why assurance is needed
   e. Requirements
   f. Assurance and software life cycle
4. Policy and requirements
   a. Security specifications
   b. Problems with precision
   c. Example: System X and Bell-LaPadula
   d. Justifying requirements

1This is available in the Resources area of SmartSite; look in the folder “Handouts”