SED Lecture 9
Design Constraints

Objectives
To know common types of constraints on designs. To identify design constraints given non-functional requirements of a system.

Key Points
1. **Design Constraints** are usually derived from a system’s non-functional requirements or from the application domain. Otherwise, the client should be consulted.
2. **Nonfunctional Requirements** are user visible constraints on the system. NFRs describe user visible aspects of the system that are not directly related to the functionality of the system. (B&D p724)
3. Typical design constraints relate to performance, dependability, cost, maintenance and end user criteria.
4. Design constraints may conflict, and so constraints should be prioritized so that informed choices between different designs can be made.
5. When priorities can not be assigned, the constraints may need to be refined. For example, why and in what context is performance critical?
6. Design constraints can be used as metrics to compare different proposed designs.

Core reading
Bruegge & Dutuoit, 4.4.7 Identifying Nonfunctional requirements, 6.4.2 identifying design goals

UWA CITS2220 semester1, 2010