What is functional analysis?

- Specifying what the system should do ... from the users perspective
- The Functional Specification is the most important document produced in systems development ... get it wrong and the system will fail

The steps ....

1 Determine the requirements
   - primarily a fact-finding activity
2 Structure the requirements
   - create a thorough and clear description of the business requirements using:
     > Process modelling – Data Flow Diagrams
     > Data modelling – Entity Relationship Models
     > supported by a Data Dictionary

1.1 The danger

‘there are few presumptions in human relations more dangerous than the idea that one knows what another human being needs better than they do themselves’

(Michael Ignatieff, in Case 2002: 67)

1.2 The skills required

A successful systems analyst must have the following skills:
- Analytical
  - systems, thinking, organisational knowledge, problem identification, problem analysis and resolution
- Technical
  - the potential and limitations of a range of technologies
- Management
  - resource management, project management, risk management, change management
- Interpersonal skills
  - interviewing, listening, written and oral presentations, working alone and with a team, facilitating groups, managing expectations

(Roffer et al. 3rd ed. Ch 2)

1.3 Gathering information

Common methods in the workplace:
- Interviews
- Questionnaires
- Observation
- Document collection
- Prototyping
1.4 Understanding the requirements

- The business objectives that drive what and how work is done
- The information people need to do their job including reporting
- The data handled within the organisation to support the jobs
- When, how, and by whom or what ... Why ... is the data moved, transformed, stored ... should ...
- The sequence and other dependencies among different data handling activities
- The rules governing how data are handled and processed
- Policies and guidelines that describe the nature of the business and the market and environment in which it operates
- Key events affecting data values and when these events occur (Hoffer et al. 3rd ed. Ch 7)

2. Structure the requirements

A practical example

- to be covered during the seminar

If you need to REVISE PROCESS AND DATA MODELLING please refer to:
Chapters 8, 9 and 10.
Chapters 7 and 8.

References

D. Grant (2003) This seminar uses information presented in Lecture notes prepared by Mr. David Grant for IMS2000-2003.