Chapter 1: Definition of Analytical Thinking

1.1 Introduction

This course deals with analytical thinking from two points of view. The first one; consider the analytical thinking as a cognitive process and its relation to four main concepts: Synthetical (Chapter 2), Systemic (Chapter 3) Critical (Chapter 4) and Creative Thinking (Chapter 5).

The second point of view; approach to analytical thinking as a style explaining its main characteristics.

At last some techniques to think analytically such as: decomposable matrices, dimensional analysis, input/output, organized random search, and relevance system are presented.

Figure 1.1 shows a clear formulation of the main components of the text.

1.2 Definition of analytical thinking

Analytical thinking is a powerful thinking tool - for understanding the parts of situation.

It is defined as:

- The ability to scrutinize and break down facts and thoughts into their strengths and weaknesses.
- Developing the capacity to think in a thoughtful, discerning way, to solve problems, analyze data, and recall and use information.
Figure 1.1: Formulation of the main components of the course