Notes: **(Record key insights from readings and discussions.)**

Systems are composed of:

1. Components: Operating parts of the system
2. Attributes: Properties of the components
3. Relationships: links between components and attributes

Section 2.2 of the book "System Engineering and Analysis" :- System Lifecycle Engineering

Fig 2.7 on page 36 of the book :-Decomposing System Design Requirements

Synthesis , Analysis and Evaluation are important activities in System Engineering; Chapter 2 of the book

Chapter 3: Conceptual Design

- Identify the "want" or "desire" for bringing a system into existence.
- Define the problem to be solved.
- Ask the basic questions to get the system level requirements.
- Describe the customer requirements in functional manner to avoid the premature commitment to specific design concept or configuration and thus unnecessary expenditure of valuable resources.

Ultimate Objective of Conceptual design stage: **To Define the WHATs and NOT the HOWs**

As a software engineer there is a tendency to think of how to design before understanding the complete system requirements.

What this learning means for me is to get the complete system requirements from the race rules and requirements before we start thinking of how to design the system or what components the system should have.

Fig 3.2 on page 58 and Fig 3.22 on page 85 in chapter 3 of the book

Fig 4.9 on 112, Generic systems analysis process, chapter 4

http://www.hitchins.net/STEM.html