

Chapters 1, 2, and 3:

1 - Introduction (pages. 1 y 2)

1.1 Framing the need for system analysis, design, and development skills.

To satisfy the user needs and development of systems, product, and services requires three types of technical activities:

- 1) System analysis
- 2) System design
- 3) System development

The gap between user with lacking technical knowledge and personal with experience over many years in system analysis, design, and development of systems is reduced by systems engineers, who are the bridge to connect both.

2 - System Analysis Concepts (pages. 15 y 16)

Five thematic concepts that are fundamental to understanding systems

1) System entity concepts

This point focus on a simple concept:

- The attributes, properties, and characteristics of systems.
- Address organizational systems roles and stakeholders.
- Identify key factors that impact user acceptability.
- Define a model for the system.

2) System architecture concepts

This point looks at how a system interacts with itself and the environment using system elements such as equipment, personnel, mission, resources, procedural data, and facilities. This is intended to minimize the confusion of developer communication about multi-tier components related to systems.

3) System mission concepts

This describe how system are employed by organizations.

4) System operations concepts

This explores how users prepare and configure a system for a mission.

5) System capability concepts

This reveal that a capability has a common construct that can be universally applied to specifying and implementing all types of capabilities.

3 - System Analysis Concepts (pages. 17-24)

What is a system?

A group of elements, working synergistically for do a task for satisfy a user, using his needs how guide.

What are some examples of types of systems?

Economic systems.	Medical systems.
Educational systems.	Social systems.
Financial systems.	Government systems.

What are the different between systems, products, and tools?

- System: Consist of several integrated elements working synergistically with one purpose, the systems need human resources for planning, operation, intervention, or support.
Ej. A jet.
- Product: Is a element of a larger system, is a entity with that has a specific capability, the products need human assistance for apply themselves.
Ej. A hammer.
- Tool: Is a supporting product that enables a user or system to leverage its own capabilities and performance to more effectively.
Ej. Hydraulic jack.

What is the difference between a precededent system and an unprecedent system?

- Precedent: Each new evolution of a system extends and expands the capabilities of the previous system by leveraging new or advances technologies, methods, tools, techniques, and so forth.
- Unprecedent: Are systems operating environments or need pose new challenges.

How do we analytically represent a system?

A system analytical get acceptable and unacceptable inputs to be processed using the opportunities, resources, roles, missions and objectives for generate acceptable outputs and unacceptable outputs, the unacceptable outputs are used for feedback the system and thus improve the system.

Bibliography:

Wasson, C. (2005). System Analysis, Design, and Development Concepts, Principles, and Practices. A John Wiley & Sons, Inc., Publication