

Systems Development: Introduction Study Guide

Study Questions

Peruse the unit's selected readings to answer the following questions:

Process

The process concept exists in quality control, software engineering, and systems engineering. This same word can mean different things:

- How would a programmer define the word process?
- How would an engineer define the word process?
- Give a unique example of a process from a quality perspective that uses a process from a software perspective.
- What is the difference between a macro level and a micro level quality control process? Give an example of each.

Life Cycle

We say systems development is a life cycle process. This is two concepts joined together.

- What is a life cycle?
- How is a life cycle different from a process? Same as a process?
- Modell Chapter 1 mentions several different life cycles: business process re-engineering, computer aided software engineering, total quality management. What do these three life cycles have in common?
- Modell Chapter 3 defines the system life cycle methodology. How is the life cycle different from the methodology?

Systems Analysis

Our whole course focuses on systems analysis. But what is this, anyways?

- Define systems analysis in your own words.
- How does this definition relate to quality processes, software processes, life cycles, and methodologies?
- Read the job description for a systems analysis with the Texas Department of Housing. Identify what a systems analyst does for a living.
- Did your definition of a systems analysis bound the duties of the above announcement? What duties in the announcement are outside the scope of systems analysis?

Systems Analysis and Other Disciplines

Just as the process concept overlaps multiple disciplines, systems analysis overlaps other types of engineering Compare and contrast:

- Business analysis with systems analysis.
- Product life cycle management with systems analysis.
- New product development with systems analysis.

For Further Study

After answering the questions in this study guide, read the general course description on our course home web page. This is the table with the headings Phase, Topics, and Activities.

- What is the general concept for each of these phases?
- What specific concepts or terms are still foreign? Please let the instructors know so we can make sure to cover these in class.

Vocabulary

Each English term in the following list has a specific, technical meaning. Determine the equivalent term in both Armenian and Russian and memorize the meaning (in your favorite language, of course ;]):

- Activity
- Business analysis
- Design
- Development

- Entry criteria
- Exit criteria
- Hardware
- Implementation
- Input
- Life cycle
- Method
- Methodology
- Metrics
- Output
- Planning
- Process (quality control)
- Process (software engineering)
- Process (systems engineering)
- Product development
- Product management
- Production
- Requirements
- System
- Systems analysis
- Systems Analyst
- Software
- Testing