

Systems Development

Introduction

<http://lbgeeks.com/gitc/systemsIntro.php>

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- **Why is systems development so important?**
- **What is the core concept?**
- **What are the major phases?**
- **Why is it called a life cycle process?**
- **Goals and objectives for the unit**

Why So Important

- **If it works, don't fix it!**
- **As people use a system, they discover:**
 - Things done, but could be done better
 - Things left undone, but now needed
- **We change useful systems to be better, cheaper, faster**
- **We do not modify systems we don't use:**
 - Never properly built
 - Built but never met human needs
- **Successful systems change**
- **Success is its own worst enemy!**

- **Systems development follows a life cycle:**
 - Requirements
 - Design
 - Implementation
 - Testing
- **Some of these major phases can be divided into minor phases:**
 - Needs, specification, analysis
 - Preliminary and detailed
- **Before we go on to the next phase, we must complete the current phase**

- **What should the system do?**
- **People intensive**
- **Customers participate in needs and specification**
- **Forms basis for entire project**

- **How should the system work?**
- **Engineering intensive**
- **Developers responsible for interpreting requirements properly**
- **Customers are not able to help**
- **Must change and expand over time**

- **Actual hardware or software development**
- **For software:**
 - **Write source code**
 - **Compile and debug**
 - **Unit test**
- **If requirements and design done properly, this phase flows smoothly**
- **Latent flaws mean return to prior phases**

- **Did we build what we promised?**
- **Test documents flow from requirements**
- **Exercise entire requirements specification**
- **Proof system works as specified**
- **Works as intended? Hopefully so, but maybe not!**

Life Cycle Process

- **Each of the previous phases is an engineering process**
 - **Different from software process**
 - **Study guide asks us to explain the difference**
- **We cannot move to next phase without completing current**
- **Systems analysis is several processes needing coordination together**
- **Product does not exist when we start**
- **Developed when we stop**
- **Start, middle, stop: life cycle!**

Unit Goals And Objectives

- **Learn systems development terminology**
- **Readings focus on definitions and introductory theory**
- **Study guide asks us to:**
 - **Determine what the same word means in different contexts**
 - **Compare and contrast similar disciplines**
 - **Look at practical and theoretical aspects**
- **Vocabulary list included**