

SAD

Lecture 1

Eng. Joud Khattab

Course Outline

- Introduction to analysis
- Introduction to UML and Modeling Concepts
- Requirement Capture
- Use Case Modeling
- Advanced Use Case Modeling
- Activity Diagram
- Collaboration Diagram
- CRC Cards
- Sequence Diagram
- Class Diagram

Needed Programs

- Modeling Tools:
 - Visual Paradigm
 - Enterprise Architect
 - MagicDraw UML
 - Visual Studio 2015 Enterprise edition

INTRODUCTION

Introduction

- **Technologies do NOT matter**
- But, software industry is in crisis:
 - A software project overshoots its schedule by a half.
 - Three quarters of all large systems are operating failures.

WHAT IS SOFTWARE ENGINEERING?

The study and application of methodologies to develop quality software
that fulfill customer needs

Software Engineering Definition

- Software engineering means building a new product or systems or modifying and developing old systems and improving their mistakes, as well as finding problems that already exist.

Software Engineering Objective

- To produce software that is:
 - On time: is deliver at the established date.
 - Reliable: doesn't crash.
 - Complete: good documentation, fulfill customer needs.