Chapter 1

Introduction to Systems Analysis and Design

INTRODUCTION

THE SYSTEMS DEVELOPMENT LIFE CYCLE

Planning

Analysis

Design

Implementation

SYSTEMS DEVELOPMENT METHODOLOGIES

Structured Design 6 Rapid Application Development (RAD)

Agile Development

Selecting the Appropriate Development Methodology

TYPICAL SYSTEMS ANALYST ROLES AND SKILLS

Business Analyst 18 Systems Analyst

Infrastructure Analyst

Change Management Analyst

Project Manager

BASIC CHARACTERISTICS OF OBJECT-ORIENTED SYSTEMS

Classes and Objects

Methods and Messages

Encapsulation and Information Hiding

Inheritance

Polymorphism and Dynamic Binding

OBJECT-ORIENTED SYSTEMS ANALYSIS AND DESIGN (OOSAD)

Use-Case Driven

Architecture-Centric

Iterative and Incremental

Benefits of Object-Oriented Systems Analysis and Design

THE UNIFIED PROCESS

Phases

Workflows

Extensions to the Unified Process

THE UNIFIED MODELING LANGUAGE

APPLYING THE CONCEPTS AT PATTERSON SUPERSTORE

CHAPTER REVIEW

Chapter 2

Project Management

INTRODUCTION

PROJECT IDENTIFICATION

System Request

Feasibility ANALYSIS

Technical Feasibility

Economic Feasibility

Organizational Feasibility

PROJECT SELECTION

TRADITIONAL PROJECT MANAGEMENT TOOLS

Work Breakdown Structures

Gantt Chart

Network Diagram

PROJECT EFFORT ESTIMATION

CREATING AND MANAGING THE WORKPLAN

Evolutionary Work Breakdown

Structures and Iterative Workplans