IT Project Management

**Course Description**

The purpose of this course is to introduce students to the concepts involved in IT project

management. This is achieved through the development of an understanding of the fundamental tenets of project management, enhancing the students’ ability to apply their knowledge, skills, and competencies in analyzing and solving IT project management problems. A special focus is put on the specifics of IT project organization, cost management, and the human factor within IT projects.

**Course Outcomes**

On successful completion, students will be able to:

▪ critically reflect on the status of knowledge in IT project management

▪ set up different IT project management formats (for small, medium, and large projects) and know

the methods for managing these different IT projects professionally

▪ develop an IT management proposal as the fundament of a professional IT project

management concept

▪ understand and integrate different IT management project plans (e.g., time plan, cost plan,

resources plan, and risk plan) and use these plans in an integrative IT project planning and controlling scheme

▪ organize and lead an IT project team and its core and/or extended team members

Contents

1. Introduction: Characteristics of IT Projects
   1. Defining IT Projects
   2. Overview of Typical Roles and Phases of IT Projects
   3. Risks and Challenges in IT Projects
   4. Role of an IT Project Manager
2. Organizing the Work
   1. Project Breakdown Structure and Work Packages
   2. Prioritization
   3. Time Planning, Milestones, and Gantt Diagrams
   4. Definition of Done
3. Cost Estimation and Controlling
   1. Challenges of Cost Estimation in IT Projects
   2. Estimation Techniques: Three-Point Estimation, Double Blind Expert Estimation, and Function Points
   3. Cost Controlling Using Earned Value Analysis
   4. Risk Management
4. The Human Factor
   1. Vision Keeping
   2. Stakeholder Management
   3. Conflict Management
5. Organizing Small and Medium Projects
   1. Rational Unified Process (RUP)
   2. Agile Software Processes
   3. Scrum
   4. Plan-Driven Project Management in Small Projects
6. Organizing Large Projects
   1. PMBOK Guide
   2. PRINCE2
   3. Multi-Project Management
   4. Agile Software Processes in Large Projects
   5. Selection of the Appropriate Project Management Method