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 the status of knowledge on IT project management.

▪ set up different IT project management formats (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, risk plan) and use those plans in an integrative IT project planning and controlling scheme.

▪ organize and to 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 on Typical Roles and Phases of IT Projects
   3. Risks and Challenges of IT Projects
   4. Role of an IT Project Manager
2. Organizing the Work
   1. Project Breakdown Structure, Work Packages
   2. Prioritization
   3. Time Planning, Milestones, Gantt-Diagram
   4. Definition of Done
3. Cost Estimation and Controlling
   1. Challenges of Cost Estimation in IT Projects
   2. Estimation Techniques: 3-Point Estimation, Double Blind Expert Estimation, 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