Requirements Engineering Foundations

Course Background:

Increasing complexity of systems to be developed and more stringent constraints on costs, quality and development time, mean we have to find all the possible improvement potential in the development process. This equally applies to software and hardware development projects (mechanics, electronics, equipment construction etc.). Language is the preferred method of communication and will always be first choice when expressing user requirements, regardless of different methods in systems or software engineering and business domain. An interview between customer and analyst is the main source of requirements for a project. This conversation often brings people together with totally different backgrounds. Expressing requirements in a natural language can bridge the gap between them.

The use of requirements in natural language as the foundation of product development implies the observance of certain rules. This training provides some techniques for the successful elicitation of requirements. During this course the following questions are answered:
- Where do requirements come from?
- How do I capture and document requirements SMART?
- How do I manage requirements?
- How do I validate and verify requirements?

Next to writing good requirements, the role of requirements is examined across the entire systems life cycle; from techniques for their initial capturing and defining through the separation of user requirements from system requirements to the relationship between requirements and other project data. Methods are discussed for capturing, defining, and organising each logically. The course considers the importance of requirements in the entire development process from both customer and suppliers point of view.

Course Benefits:

This Requirements Management course takes a tool-independent approach to understanding the key role of requirements in the context of the project development process and on how to define requirements. This course uses an interactive format, encouraging attendees to examine their existing methods of doing business and to investigate more effective approaches.

Who will benefit from this course?

Project Managers	Marketing Staff	Test Engineers	Software Developers
Development Engineers	Contracts Officers	QA Managers	System Engineers

Course Contents:

Course duration : 3 days:
1. Introduction
2. Requirements Concepts
3. Engineering Processes
    3.1. Agile
    3.2. Systems Engineering
    3.3. Waterfall
4. Elicitation Strategies
    4.1. Categories
5. Analyzing Requirements
    5.1. Priorities
    5.2. Risk
6. Writing Requirements
    6.1. Quality Criteria
    6.2. How to write good requirements
    6.3. Requirements Specification Document
7. Reviewing Requirements
8. Change Management & Traceability
9. Conclusions

Pre-requisites:

Initial understanding of development and engineering processes.

Learn, Understand and Deliver !

Course Format:

Teaching method: Lectures, practical exercises and guided discussions.
                   Comprehensive interactive workshop, including role play.

Teaching material: Requirements Management & Engineering workbook, hand-outs of exercise, text of cases.

Language: English or Dutch

Additional Options:

In order to further enhance the outcome of this course, please indicate any desired options when signing up for this course, or contact your account manager. There is no focus on specific tools and platforms.

Additional Subjects:

This course can be easily combined with other elements from the course curriculum of Mithun Training & Consultancy. Additional exercises can be added, and your own project can be even used during the course. Please contact your account manager for more information about the possibilities we can offer.

Complementary Courses:

The course curriculum offered by Mithun:

Requirements Engineering basics	Requirements Management Foundations
	RM&E Aware for Managers
Requirements Engineering advanced	The Risk of Words – Writing and Documenting Requirements
	Interviewing Techniques & Guidelines
	Elicitation Workshop Techniques & Guidelines
Scrum	Applying Scrum
Object Oriented Analysis & Design	Object Oriented Analysis & Design using UML 2.x
	Design Patterns and Emerging Architecture
	Realizing Software Architectures with UML 2.x
	Specification of Component Interfaces
	API Design
Model Based Systems Engineering	Systems Modeling with SysML
	Introduction to SysML
Real-time & Embedded Analysis & Design	Real-time Software Design
	Advanced Real-Time Analysis & Design
OMG Programs	OMG Certified UMP Professional
	Preparation training OCRES Intermediate Certification

Terms and conditions:

The standard terms and conditions of Mithun Training & Consultancy are applicable. A copy will be sent on request.

Learn, Understand and Deliver !