



The Arab Innovation and Entrepreneurship Network (AIEN)

Online Training Course on

Development of training modules for Design thinking

TRAINING COURSE OUTLINE

Title	Design thinking applied to ICT
Modality	Online instructor-led
Dates	15 October - 31 December 2022
Duration	5 weeks
Registration deadline	30 September 2022
Training fees	free
Description	<p>This training will support the participants in understanding how creativity and design thinking work, who they are right for, how to quantitatively measure their success through business modelling,. Its structure, made up of 9 modules, provides a pragmatic approach from theory to practice as well as different models and tools that will allow participants to understand the current or future business needs.</p> <p>After successfully completing this course, the learner should feel competent in leading an innovative team and to create products and services that re matching the need of the potential clients.</p> <p>Through an array of multimedia resources, the participants will be able, by the end of this course, to have a thorough understanding of how to analyse the needs, define the problems, identifying potential solutions, prototype and test those solutions and manage and analyse that success, as well as how to present an idea to an array of interested business parties.</p>
Course code	22OI500108MUL-E-D

1. LEARNING OBJECTIVES

The objective of this course is for participants the development of new services and products using the design thinking framework.

2. LEARNING OUTCOMES

- Understand the critical design thinking skills needed to either improve an existing product or design a new product.
- Learn to identify customer needs and draft customer needs statements as your first step towards user innovations.
- Learn how to translate user needs into product specifications quantitatively, and how establishing product metrics can help to define those specifications.
- Learn to apply creativity, brainstorming, and concept generation process in designing needs solutions.
- Explore prototyping methods, strategies, and real-life examples where these have been applied to create a design that represents customer needs and product specifications.
- Understand design of services, identify the potential for innovations within them, and learn how to apply product development frameworks to the service context.
- Learn to use the modular and integral product architectures in determining the building blocks of a product.
- Learn how to apply design for ICT principles to a product life cycle.
- Learn to select and implement a product development process (staged, spiral, and agile) that's aligned to your project needs.

3.TARGET POPULATION

This is a foundational level course designed for anyone wanting to learn more about how to design effective solutions to solve their users/clients problem.

4. ENTRY REQUIREMENTS

No Requirement

5. TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Javier Gonzalez Nuñez	gonzaleznunezjavier7@gmail.com

6. TRAINING COURSE CONTENTS

Structure	Hours	Content/Activities
Introduction		<ul style="list-style-type: none"> ● Introduction ● Goals and objectives of the course ● Audience and learner's benefits ● Topics ● Navigation
Module 1 Design Thinking Skills		<ul style="list-style-type: none"> ● Definitions ● fields of application ● how to apply DT to improve creativity and innovation at the corporate world ● Knowledge check /Graded Quiz
Module 2: Identifying Customer Needs		<ul style="list-style-type: none"> ● Introduction and objectives ● Empathy ● Market research ● Persona ● Problem definition ● Knowledge check /Graded Quiz
Module 3: Product Specifications		<ul style="list-style-type: none"> ● Introduction and objectives ● Product specification process ● Product specification best practice ● Test based product specification ● Knowledge check /Graded Quiz
Module 4: Applied Creativity		<ul style="list-style-type: none"> ● Introduction and objectives ● Ideation techniques ● Creativity best practices ● Knowledge check /Graded Quiz
Module 5: Prototyping		<ul style="list-style-type: none"> ● Introduction and objectives ● Objectives of prototypes ● Types of prototypes ● Examples of prototypes ● Knowledge check /Graded Quiz
Module 6: Design for Services		<ul style="list-style-type: none"> ● Introduction and objectives ● The service design framework ● Scenario building ● Knowledge check /Graded Quiz
Module 7: Product Architecture		<ul style="list-style-type: none"> ● Introduction and objectives ● Innovation template ● Innovation patterns ● Knowledge check /Graded Quiz

Module 8: Design for ICT		<ul style="list-style-type: none"> • Introduction and objectives • Agile applied to ICT • Prototyping in ICT • Knowledge check /Graded Quiz
Module 9: Product Development Processes		<ul style="list-style-type: none"> • Introduction and objectives • Agile • Scrum • Knowledge check /Graded Quiz

7. TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Week 1	Introduction Module 1 Design Thinking Skills Module 2: Identifying Customer Needs	Training Quizzes – with immediate feedback Forum Activities – to stimulate class engagement Graded Quiz – end of week quiz
Week 2	Module 3: Product Specifications Module 4: Applied Creativity	Training Quizzes – with immediate feedback Personal Learning Diary – to analyze student growth Forum Activities – to stimulate class engagement Graded Quiz – end of week quiz
Week 3	Module 5: Prototyping Module 6: Design for Services	Training Quizzes – with immediate feedback Forum Activities – to stimulate class engagement Graded Quiz – end of week quiz
Week 4	Module 7: Product Architecture Module 8: Design for ICT	Training Quizzes – with immediate feedback Forum Activities – to stimulate class engagement Graded Quiz – end of week quiz Main project – Application of the templates
Week 5	Module 10: Product Development Processes	Training Quizzes – with immediate feedback Forum Activities – to stimulate class engagement Graded Quiz – end of week quiz Main project – Conclusion

8. METHODOLOGY (Didactic approach)

The course contains:

- Training Quizzes – with immediate feedback
- Forum Activities – to stimulate class engagement

- Graded Quiz – end of week quiz
- Main project – students will develop a new service or product to apply the concepts seen during the course

9. EVALUATION AND GRADING

evaluation	weights
Graded Quiz week 1	15 %
Graded Quiz week 2	20 %
Graded Quiz week 3	20 %
Graded Quiz week 4	20 %
Graded Quiz week 5	15 %
Forum participation	10 %

Participants will receive a certificate upon successful completion if the course was passed at 60% or higher.

TRAINING COURSE COORDINATION

Course coordinator: Name: Ayman . Aljehani Email address: aaljuhni@kacst.edu.sa	ITU coordinator: Name: Kamel Bra Email address: kamel.bra@itu.int
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