

## SYLLABUS

IS414E\_0101\_26

### Applied Design Thinking (UX web design)

|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| <b>ACADEMIC AREA :</b> | <b>OPERATIONS AND ANALYTICS</b>                                 |
| <b>PROGRAMME :</b>     | <b>MASTER DMM / PGE / UGTC LEVEL 4 PGE</b>                      |
| <b>PERIOD :</b>        | <b>SPRING</b>                                                   |
| <b>COORDINATOR :</b>   | <b>Mr. Mohamad EL SAYAH</b>                                     |
| <b>INSTRUCTOR(S) :</b> | <b>Mr. Mohamad EL SAYAH</b>                                     |
| <b>CONTACT HOURS :</b> | <b>24.0 hours</b>                                               |
| <b>STUDY TIME :</b>    | <b>null hours (Class preparation, homework and assessments)</b> |
| <b>CREDITS :</b>       | <b>4.0 ECTS</b>                                                 |
| <b>AOL :</b>           | <b>YES</b>                                                      |

#### PRE-REQUISITE MODULES :

No Prerequisite modules

#### MODULE DESCRIPTION :

The course is on user experience design which leans heavily on design concepts and their application to build a digital product. A major part of the syllabus is designing and developing wireframes and prototypes of websites using digital tools based on User centered research and brainstorming.

#### CONTRIBUTION TO PROGRAMME LEARNING OBJECTIVES :

- Integrate disciplines and deep knowledge to Create innovative solutions #CreateSolutions

#### MODULE INTENDED LEARNING OUTCOMES (ILOs) :

By the end of the module, the student will be able to: 1. Understand user experience and why it matters and the design process 2. Empathize with the user by keeping the designer in his place and come up with empathy maps, user centered research 3. Develop site objectives and identify user needs, outline functional specifications and content requirements 4. Brainstorm and come up with user flow and customer journey maps 5. Develop the interaction design (structure plane) and the interface design (skeleton plane) and create digital prototypes 6. Evaluate the designs by testing and analytics

#### TOPICS COVERED :

- The principles of Design Thinking.
- Double Diamond model
- The process of Design Thinking:
  - o Empathize (Understanding Users)
  - o Define (Problem Framing)
  - o Ideate (Generating Solutions)
  - o Prototype (Making Ideas Tangible)
  - o Test (Validation & Feedback)

· Measurement & UX Outcomes

#### RESEARCH-LED TEACHING :

The students are taught the fundamental concepts of UX Research

#### CSR AND SUSTAINABLE DEVELOPMENT GOALS :

#### CSR NB HOURS :

2

#### SUSTAINABLE DEVELOPMENT GOALS COVERED :

- 09 - Industry, innovation and infrastructure

#### TEACHING METHODS :

Multiple media including case studies, videos, and online resources will be used for teaching. Fundamental concepts and methods will be explained during lecture

#### METHODS OF ASSESSMENT :

| Continuous/Final | Group/Individual | Assessment                 | Weight | Duration | ILOs assessed |
|------------------|------------------|----------------------------|--------|----------|---------------|
| Continuous       | Individual       | Quiz                       | 15%    | 1 Heure  | 1,2,3         |
| Continuous       | Individual       | Quiz                       | 15%    | 1 Heure  |               |
| Continuous       | Group            | Multimedia production      | 30%    |          | ALL           |
| Final            | Individual       | Written assessment at home | 40%    |          | ALL           |

#### **Assessment 1 details:**

Quiz 1: Will take place during session 4. It will cover the first two phases of Design Thinking: Empathize and Define.

#### **Assessment 2 details:**

Quiz 2: Will take place during session 7. It will cover three phases of Design Thinking: Ideate, Prototype, and Test.

#### **Assessment 3 details:**

The students demonstrate the complete process of Design Thinking (Web User Experience) through a presentation which will take place during session 8.

#### **Assessment 4 details:**

The course is on user experience design which leans heavily on design concepts and their application to build a digital product. A major part of the syllabus is designing and developing wireframes and prototypes of the websites using digital tools based on User centered research and brainstorming. The student comes up with a final report demonstrating competence in the complete process through a report based on real world situation or case study.

**ACADEMIC INTEGRITY :**

Academic misconduct encompasses various behaviors or actions that violate the principles of academic integrity, fairness, and honesty, thereby undermining the credibility of academic work, assessments, or research. Examples of academic misconduct include:

- Cheating
- Plagiarism
- Fabrication
- Gaining an unfair advantage
- Assisting others in committing academic misconduct, such as by utilizing generative AI
- Falsification of records or official documents
- Unauthorized access to restricted information or data
- Unauthorized or unethical use of generative AIS

Academic misconduct is a serious offense and can result in consequences such as module failure, research project failure, or even expulsion from the school. To prevent unintentional academic misconduct, it is essential to consult with your instructor to understand the specific rules and instructions pertaining to the use of AI in learning and assessment.

For more comprehensive information on academic integrity rules, principles, and disciplinary procedures, please refer to the Academic Integrity section of the Student Handbook.

**BIBLIOGRAPHY :**

Shneiderman, B. et al. (2014). Designing the User Interface: Strategies for Effective Human-Computer Interaction, (5th edn). [eBook: <https://bit.ly/3o620I9>].

**Additional Reading**

Case Studies provided in the class.

**MODULE PLAN SESSIONS :****Plan Session 01 :**

Module 1: Introduction to Design Thinking

- Understanding the fundamentals of Design Thinking
- Exploring the design thinking process: Empathize, Define, Ideate, Prototype, Test (EDIPt)
- Case studies illustrating successful applications of Design Thinking in web UX design

**Plan Session 02 :**

Module 2: User-Centered Research and Empathy

- Techniques for user research, including interviews, surveys, and observation
- Developing personas to better understand and empathize with users
- Hands-on activities to practice empathy-building exercises

**Plan Session 03 :**

Module 3: Problem Definition

- Defining design challenges and problem statements
- Create User Personas and come up with goal and objectives to be achieved through UX

**Plan Session 04 :**

Module 4: Ideation

- Mapping interactions defining customer journey
- Generating innovative ideas through brainstorming and mind mapping
- Evaluating and selecting ideas using criteria such as feasibility, desirability, and viability
- Quiz 1

**Plan Session 05 :**

Module 5: Conceptual Designing

- Design Principles
- Design process and wireframing based on sketches

**Plan Session 06 :**

Module 6: Prototyping Techniques

- Introduction to low-fidelity and high-fidelity prototyping
- Tools and methodologies for creating prototypes
- Iterative prototyping and feedback gathering

**Plan Session 07 :**

Module 7: Usability Testing and Feedback

- Planning and conducting usability tests
- Analyzing user feedback and iterating on designs
- Integrating user feedback into the design process
- Quiz 2

**Plan Session 08 :**

Final Presentation

