

MGA 671 Interaction Design Methods (4 ECTS, 108h), Fall 2023

Instructor: Dr. Panagiotis Kosmas (pk.kosmas@idmaster.eu)

Contact Details: All email communication regarding this course should be sent to pk.kosmas@idmaster.eu. Special online “office hours” will be set up for group and individual mentoring, and those will be conducted through google hangout/chat.

Course objectives: To obtain basic knowledge about principles and methods of interface and interaction design. To familiarize the students with the interaction design process and to develop group work skills.

Course content: Introduction to interaction design methods and to the process of developing and evaluating prototypes. Contextual inquiry. Personas. Scenario-based design. Involving stakeholders in the participatory design process. Developing user interface concepts and metaphors, Concept mapping, user stories, needs analysis, and quantitative and qualitative methods of data collection.

Learning Outcomes: Upon successful completion of the course, participants will be able to: understand the design process of software user interfaces; choose appropriate methods for involving stakeholders in the design process; write personas, and scenarios; and conduct different methods of data collection.

Workload: To successfully conclude this course, students must do both individual and group-based activities. Delivery is organized as a workshop where students work on interaction design projects (25 hours). Theoretical topics are presented as short modules through google classroom and other forms of synchronous and asynchronous communication. Independent work is divided into three parts: work on a group project (approximately 60 hours); work on individual assignments (approximately 8 hours); work on literature (approximately 15 hours).

Assessment: The exam grade consists of the following components: interaction design project done as a group assignment (70%); individual assignments (30%). The final mark will be on a 0-10 scale in increments of 0.5 points. The passing grade is 5 out of 10.

Expected individual work activities: It is possible to receive 20 points for the individual assignments and will be based on the readings.

- Individual Assignment: Assignment on page 31 of the book

Expected group work activities: It is possible to receive 70 points for the interaction design group project. The following design artifacts and steps are assessed in the group project:

- Group Assignment 1: project design concept/brief (max 10 points)
- Group Assignment 2: personas and scenarios, conceptual design (max 15 points)
- Group Assignment 3: Paper Prototypes & Evaluation (max 15 points)
- Group Assignment 4: High-fidelity prototypes and evaluation (max 20 points)
- Final report and presentation (max 10 points)

Peer evaluation: If students have contributed a significantly different amount of time to the group project, the instructor may raise or lower the points. Late submissions are not accepted.

The design script will be announced on google classroom during the first week of classes.

Assessment criteria: Grades will be based on these criteria:

91–100% of the work is done — excellent: outstanding work with only few minor errors.

81–90% of the work is done — very good: above average work but with some minor errors.

71–80% of the work is done — good: generally good work with a number of notable errors.

61–70% of the work is done — satisfactory: reasonable work but with significant shortcomings.

50–60% of the work is done — sufficient: passable performance meeting the minimum criteria.

49% or less of the work is done — fail: more work is required before the credit can be awarded.

The technology needed to perform this course: Basic knowledge of computers and a desire to learn how to use some basic drawing/UI prototyping tools

Final Grades

A = 10

B = 9 or 8

C = 7

D = 6

E = 5

F = 1, 2, 3, 4

Synchronous activities: The delivery of the course will be primarily asynchronous with discussions taking place mainly through the google classroom platform. In addition, there will be set times for short synchronous sessions (either text chat or voice chat through google hangouts). In each session, we will discuss acquired knowledge, provide feedback and/or mentor students. We will divide these sessions into groups and the students will agree on a time for discussion. The times and days of these synchronous sessions will be decided and announced early in the semester.

Required Textbook: Jenny Preece, Yvonne Rogers, and Helen Sharp. 2015. *Interaction Design: Beyond Human-Computer Interaction* (4th Edition). John Wiley & Sons, Inc., New York, NY, USA.

Newer versions of the book are ok.

The pedagogical script for this course:

Sessions	Topic/Materials	Tasks/assignments	Technology
Session 0: (September 01- 06/9)	Induction session: Getting familiar with the course environments and technologies Material: - Course pedagogical script	Assignments: 1) Read course Pedagogical script 2) Explore course Resources 3) Buy the required textbook (http://eu.wiley.com/WileyCDA/WileyTitle/productCd-EHEP003334.html#purchase)	Google applications/
Session 1: (6/09-19/09)	Introduction to Interaction Design	The main aims of this session are to:	

	<p>Material: Chapter 1 of the book and additional resources on google classroom</p> <p>Design Challenge</p>	<ul style="list-style-type: none"> ● Explain the difference between good and poor interaction design. ● Describe what interaction design is and how it relates to human-computer interaction and other fields. ● Explain the relationship between the user experience and usability. ● Describe what and who is involved in the process of interaction design. ● Outline the different forms of guidance used in interaction design. ● Enable you to evaluate an interactive product and explain what is good and bad about it in terms of the goals and core principles of interaction design. 	
	<p>Work on Assignment 1 of Group project and Individual Assignment 1</p>	<p>Read the design script and decide on the product/application you plan to design</p> <p>Assignments:</p> <ol style="list-style-type: none"> 1) Read Chapter 1 of book 2) Individual assignment 3) Find your team and start working on your group project 4) Start working on Group Assignment 1 - project design concept 	<p>Google classroom</p>
<p>Session 2: (20/09-03/10)</p>	<p>Data Gathering and Establishing Requirements (Data gathering methods, requirements, personas, scenarios)</p> <p>Material: Chapter 7+9 + 10 of the book and additional</p>	<p>The main aims of this session are to:</p> <ul style="list-style-type: none"> ● Discuss how to plan and run a successful data gathering program. ● Enable you to plan and run an interview. ● Enable you to design a simple questionnaire. ● Enable you to plan and carry out an observation. ● Describe different kinds of requirements. ● Enable you to identify different kinds of requirements from a simple description. 	<p>Google Hangout and classroom</p>

	resources on google classroom	<ul style="list-style-type: none"> ● Explain how different data gathering techniques (those introduced in Chapter 7 and others) may be used during the requirements activity. ● Enable you to develop a scenario, a use case, and an essential use case from a simple description. ● Enable you to perform hierarchical task analysis on a simple description. ● Explain what is meant by the problem space. ● Explain how to conceptualize interaction. ● Describe what a conceptual model is and how to begin to formulate one. ● Discuss the use of interface metaphors as part of a conceptual model. ● Outline the core interaction types for informing the development of a conceptual model. ● Introduce paradigms, visions, theories, models, and frameworks informing interaction design. 	
	Work on Individual Assignment Group project	Assignments: <ol style="list-style-type: none"> 1) Read chapters 7, 9 and 10 of book 2) Data Gathering 3) Group assignment 	Google classroom
Session 3: (04/10-17/10)	Conceptual Design and the Process of Interaction Design Material: Chapter 2 + 9 of the book and additional resources on google classroom	The main aims of this session are: <ul style="list-style-type: none"> ● Explain what is meant by the problem space. ● Explain how to conceptualize interaction. ● Describe what a conceptual model is and how to begin to formulate one. ● Discuss the use of interface metaphors as part of a conceptual model. ● Outline the core interaction types for informing the development of a conceptual model. ● Introduce paradigms, visions, theories, models, and frameworks informing interaction design. 	Google Hangout and classroom

	<p>Work on Group Assignment 2 of Group project: personas and scenarios</p> <p>Work on Assignment 2 of Group project: conceptual design</p>	<p>Assignments:</p> <ol style="list-style-type: none"> 1) Read chapters 2 and 9 of book 2) Working on Group Assignments 	Google classroom
<p>Session 4: (18/10-31/10)</p>	<p>Design, Prototyping and Construction</p> <p>Material: Chapter 11 of the book and additional resources on google classroom</p>	<p>The main aims of this session are to:</p> <ul style="list-style-type: none"> • Describe prototyping and different types of prototyping activities. • Enable you to produce simple prototypes from the models developed during the requirements activity. • Enable you to produce a conceptual model for a product and justify your choices. • Explain the use of scenarios and prototypes in design. • Introduce physical computing kits and software development kits, and their role in construction. 	Google applications/
	Work on group project	Read the design script, design the paper prototypes and evaluate them	
<p>Reading and Reflection Week: 01/11-07/11</p>			
<p>Session 5: (08/11-21/11)</p>	<p>Interaction Design in Practice and Evaluation</p> <p>Material: Chapter 12 +13 of the book and additional</p>	<p>The main aims of this session are to:</p> <ul style="list-style-type: none"> • Be aware of the existing design patterns. • Find and use different kind of tools for Interaction Design • Understand the significance of the evaluation in Interaction Design process 	Google Hangout and classroom

	resources on google classroom	<ul style="list-style-type: none"> • Enable you to understand the differences between the different types of evaluation • Enable you run evaluation case studies • Consider some challenges while doing evaluation 	
	Group Project	Assignments: <ol style="list-style-type: none"> 1) Read Chapter 12 + 13 of book 2) Continue working on Group project 3) Group project 	Google classroom
Session 6: (22/11-05/12)	Usability testing and Evaluation analytics and models Material: Chapter 14 + 15 of the book and additional resources on google classroom	The main aims of this session are to: <ul style="list-style-type: none"> • Discuss the evaluation process. • Enable you run a usability testing • Enable you to conduct experiments of evaluation. • Enable you to identify some inspections in evaluation studies • Enable you to be informed about some predictive models of evaluation 	Google Hangout and classroom
	Work on Group project	Assignments: <ol style="list-style-type: none"> 1) Read chapters 14 + 15 of book 2) Working on Group PROJECT 	Google classroom
Session 7: (06/12-19/12)	Presentation of the final projects	Assignments: <ol style="list-style-type: none"> 1) Group project presentations 	Google Hangout and classroom