

# MGA 679 – Ubiquitous Computing

## ECTS credits

5 ECTS

## Teaching semester

Autumn 2016

## Assessment form

Graded

## Lecturer

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## Contact details

All email communication regarding this course should be sent to [ilja.smorgun@idmaster.eu](mailto:ilja.smorgun@idmaster.eu).

Special online “office hours” will be set up for group mentoring and meetings will be conducted through Google Hangouts.

## Course objectives

The course offers skills for analysing and specifying applications that work across a broad range of devices. By participating in the course students will acquire hands-on experience of designing distributed interactions.

## Course content

The course consists of the following modules:

- Mapping the avatar ecology of a cross-device application;
- Describing distributed interaction scenarios;
- Describing interactions in an artefact ecology with the distributed user interface (DUI) pattern language;
- Composing a design brief for a cross-device application;
- Sketching distributed interactions.

## Learning outcomes

After successfully completing the course students will know:

- How to map an avatar ecology;
- How to describe distributed interaction scenarios by using customer journey maps and design patterns;
- How to compose design briefs;
- How to sketch distributed interactions.

### **Expected individual work activities**

Students are expected to:

1. Read all provided lecture materials;
2. Participate in the synchronous sessions;
3. Fulfill practical assignments.

### **Expected group work activities**

Students are expected to work on group projects and participate in the synchronous group mentoring sessions.

### **Assessment criteria**

Students will work in teams of up to 4 people. Group projects will be assessed according to their level of detail:

<b>Level of detail</b>	<b>Grade</b>
Shallow work, only basic concepts explored, accompanying descriptions are not clear.	0 - 5
Work is not very detailed, accompanying descriptions are somewhat understandable.	5 - 6
Work is somewhat detailed, accompanying descriptions are concise and could be further elaborated.	6 - 8
Work is quite detailed, accompanying descriptions are clear and elaborate.	8 - 9
Work is very detailed and rigorous, accompanying descriptions are clear and thorough.	9 - 10

The final grade will be assigned according to the following scale:

- 9-10 of the work is done - excellent: outstanding work with only few minor errors.
- 8-9 of the work is done - very good: above average work but with some minor errors.
- 7-8 of the work is done - good: generally good work with a number of notable errors.
- 6-7 of the work is done - satisfactory: reasonable work but with significant shortcomings.
- 5-6 of the work is done - sufficient: passable performance meeting the minimum criteria.
- Less than 5 - fail: more work is required before the credit can be awarded.

### **Synchronous activities**

Synchronous sessions will be conducted during every module. These can be audio-based or text only. Specific meeting times will be agreed with every group separately.

## Course schedule

Activities are organised in bi-weekly modules, each focusing on specific topics.

<b>Dates</b>	<b>Topic</b>
05.09	Induction session: Getting familiar with the course description and supporting tools.
12.09 - 25.09	Mapping the avatar ecology of an existing cross-device application.
26.09 - 09.10	Describing distributed interaction scenarios with customer journey maps.
10.10 - 23.10	Describing interactions in an artefact ecology with design patterns.
24.10 - 06.11	Composing a design brief for a cross-device application.
07.11 - 20.11	Sketching distributed interactions: The 10 plus 10 method and sequence diagrams.
21.11 - 04.12	Sketching distributed interactions: animated sequences.
05.12 - 11.12	Final improvements and submission of deliverables.