Exploring Mixed Realities (G&I-2-KMIXREA-21)

General information

Course ID
G&I-2-KMIXREA-21

Course type
Module

Credits (ECTS)
2 ECTS

Language of instruction
Dutch

Study Year
Year 2

Offered by
HKU Games and Interaction

Contact time (hours)
15

Self-tuition (hours)
41

Course information

Content 1
In this course, you familiarise yourself with mixed reality (VR, AR, MR) and then build a game/interactive experience in a team.
Towards the end of the subject, the group documents its knowledge and shares it in a class presentation.
This subject substantively explores the various possibilities within mixed reality and gets you to design with those possibilities.

Learning objectives
1. You learn hands on to build a game or interactive application using mixed reality (VR/AR etc.). [DES/TECH]
2. You explore the technology and are able to implement it yourself in a game engine. [TECH]
3. You are able to design for mixed reality. [DES]
4. You are able to assume a role within a multidisciplinary team and fulfil it properly. [ORG]
5. You can reflect on your findings/results, present the results and document them on an open source platform.[ORG]

Entrance requirements
Knowledge of Unity3D of a similar game engine (Unreal Engine) is recommended.

Competences

Competences

- 01. Technical expertise and analysis

Technological competences

- 02. Design and prototyping
  Technological competences

- 03. Testing and implementing
  Technological competences

- 04. Research and analysis
  Designing competences

- 05. Conceptualisation
  Designing competences

- 06. Design
  Designing competences

- 10. Communication
  Organizing competences

- 11. Learning and reflective skills
  Professional competences

Education forms

Information Instructional modes
You learn about the basic theory in lectures and complete the assignment in your group. At the end, you present your product.

Attendance / Participation requirement
100% attendance obligation

Explanation of education forms
Lessons comprise two elements: the first element consists of theory or an introduction to the subject related to VR or AR or MR, while the second element consists of working hands-on with your group to build a game, experience or application that complies with the assignment.

Lesson 1: Experimentation
Lesson 2: Design
Lesson 3: Build
Lesson 4: Test
Lesson 5: Present

Instructional modes

- Lecture

- Working group

Assessment criteria

Assessment criteria
1. (TECH) Quality Experiments/Prototypes:
Quality/complexity of experiments/prototypes and execution of design
2. (TECH/ONTW/ORGA/PROF)
Quality of report:
At least reachable on open source platform (Github, Instructables etc.) (Quality of documentation)

Clear explanation of motivation for the concept/experiment (both conceptually and technically)
Clear explanation of decision taking with regard to concept and technical choices.
Use of visual elements (pictures/slides/prototype/video)
Clear explanation of each student's role/responsibilities

Pass mark

To pass this subject, a group must have at least given a presentation and made a working product and their documentation must be complete and accessible. The documentation must obtain at least a pass mark.

Deliverable

Make a game or experience focusing on mixed reality (the experience must be about the technique/technology and interactions engendered: in other words not Pacman in VR, because you can also play that without VR).

Document your findings and upload your results to an open source platform (github) including pictures and videos of the results.
Groups comprise a maximum of four students.
Clearly describe the role/tasks you have assumed within the team and how much time each task took.
Present your findings as a group at the end of the project, including at least the following:
-The goal of the project
-The technologies you used and why
-Design choices you have made and why
-Demo of the game/experience you have created
-Problems you encountered/solved
-Positive insights of your approach
-Negative insights of your approach
-Interesting insights of your approach

It is allowed to use AI generated works within the assignment

Tests

Lecturer / Committee Assessment
Lecturer Assessment

Tests

- Game/Interactieve Application
  Assignment

  Test weight
  100

  Minimum grade
  A satisfactory result

  Credits
  2

  Grading scale
  Differentiated (VG, G, PASS, FAIL)

Lecturers

Lecturer

- F Booij

Contact person

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