CHOOSE YOUR OWN ADVENTURE

Semester Guide OE3 ICT & Media Design – Spring 2021

Fontys

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Introduction

Welcome to Semester 3 – Choose Your Own Adventure!

Congratulations again on successfully finishing the first year and obtaining your *propedeuse* diploma. Right ahead of you is the second year, consisting of your *profile* semester (this one) followed by a *specialization* semester (Semester 4), after which you will do your first internship (Semester 5).

"Choose Your Own Adventure"

This semester's theme is *"Choose your own adventure".* Semester 2 was aimed at providing you with a solid foundation of media design practices. The goal of Semester 3 is to prepare you for your internship and as such we have thought it important for you to be introduced to your future work field, which includes orientation on the knowledge and skills that fit with your *personal professional focus.* Simply put, it means that next to the things *we* think everyone should learn, you will have some freedom to determine what knowledge and skills *you* would like to explore on a deeper level.

The course-based team has chosen to gamify the learning content. Splitting the various topics into standalone modules that students can complete and unlock to be able to proceed to the next, more challenging modules. We have identified three different character development arcs within the skill tree, (Front-end) Developer, UX Designer, and Media Producer (see below). All students have to complete modules for all three characters. However, as you proceed through the semester and start figuring out your professional identity, you can specialize and will have more choices of which modules to complete.

Differences from previous semester executions

The last time, this semester was executed, some improvements have been suggested by the students and teachers. Here are these improvements:

- Instead of planning lessons for half days 5 times a week, students really asked for having full days to focus on their work. The plan is now to have 2 full days and 1 half day in the week with the plan that all contact hours will be in the Fontys building and not online.
- The non-mandatory challenges that students can do for practice were previously not contributing to achieving the learning outcomes of the semester. This has now been changed so that any deliverables submitted by the student can be used as evidence in their portfolio to contribute towards the summative assessment at the end of the semester.

Semester Contents

Structure

Semester 3 lets you choose what you can do best and what you really want to learn. We all start with a basic level in which you get some insight in the three character classes you can choose from and learn the basics that you need in all three disciplines to move forward. This will take two sprints and will be done with all fellow students together. From Sprint 2 on you will choose your own character class and receive expert knowledge and education in one special skillset. You will learn in depth graphical and 3D animation skills, object-oriented programming or the needed tools and skills to reach new heights of user friendly UI and UX design. After this phase of specialising and gaining your character class, the whole semester meets up again for one big final challenge - a hackathon - in which you combine your skills with those of other character classes to innovate and design something truly remarkable. With all these challenges behind you, you are ready to move on to Semester 4, onto new Adventures.

Client Project

Next to developing your skills in one of three specialisations you will work together on one big project that spans over the course of the Semester. Your customer is FHICT, and as part of your education you will work on new media, applications, interactive experiences and everything else that you might come up with to make Semester 3 Course Based Media more awesome. The theme for this year will be decided with the students. Think about ways to improve the flow through the Semester, apps that help you figuring out in which skills you are best or new ways to make blended learning in the new normal more effective. As part of this project you will discuss everything you produced with the stakeholders at Fontys, and there is a real chance that what you build up will be used for the next generations of students. That way, you not only learn for yourself but also help making learning better for everyone who starts after you.

Gamification System

As part of your way through Semester 3 you will earn points from two resources – the project and challenges. In theory you don’t need to do any challenges if you make a perfect project and demonstrate your skills in all learning outcomes. In reality however, you will probably focus on a few aspects of your project and other team members will do something else. That is why you have the challenges to make sure you cover all learning outcomes.

Topics

Research

For both gathering insights as well as substantiating your choices, you will be taught to find and apply the correct research methods. Every time you need to make a choice, an underlying question exists; sometimes very obvious and sometimes hard to find. Learning to recognize these questions may be the hardest part, but once you master it, research becomes a lot easier and much more meaningful.

Interaction Design

A lot of research has been conducted in the area of Interaction Design (IxD). You will be taught the most important basic principles from which you can further explore and expand your knowledge as needed for your project. Applying this knowledge, you will be able to lift your first prototypes to a higher level, avoiding the waste of time of getting answers you could have thought of yourself.

Building Interactive products

To be able to come up with an innovative interactive user experience, you will conduct a lot of experiments using combinations of software and hardware. Don't limit yourself to the confines of the (laptop) screen and the usual input methods (keyboard, mouse/touchpad), but actively explore possibilities that lie beyond, for example: wearables, sensors, knobs and dials, computer vision, skeleton tracking, face tracking, … Anything goes, as long as it enriches your intended user experience in a meaningful way.

Professional Development

On top of the media design topics mentioned above, you will be working on your own professional development. In this semester, this will be shown primarily by presenting the steps of your iterative design and development process, by presenting your proceedings in a professional manner towards your client, by striving to deliver all of your work in a professional way and of professional quality and finally by presenting your explorations of and the resulting insights into your future work field.

Learning Outcomes

Learning Outcome 1. Concept

BA **You discover and define a concept for an interactive media product as an answer to the client's problem.**

Discover = gather insights into the client's problem, business opportunities and motivations of the target group, i.e. through the combination of interviews, surveys and desk research.

Define = the challenge definition is validated – i.e. discussed with expert(s) – and the concept tested with end users.

Learning Outcome 2. Interaction Design

BA **You design an interactive media product that matches the needs and characteristics of the end users based on appropriate interaction design principles and one or more prototypes.**

Design = creating and validating interaction design decisions, i.e. creating and comparing many variations of wireframes, visual designs, lo-fi and hi-fi prototypes.

Characteristics of end users = Insights into the target group have been applied in the design and validated through user research with end users

Based on appropriate IxD principles = the chosen IxD principles are consistent with and reinforce the design

Based on prototype(s) = the intended interaction can be experienced and tested through a prototype

Learning Outcome 3. Interactive Media Product

BA **You realize an interactive media product by combining hardware and software, based on functional requirements, obtained from user stories.**

Realizing = creating and validating through technical proof-of-concepts

Combining hardware and software = based on comparison of alternatives

Functional requirements = prioritized according to a standard method

User stories = drawn up from a user perspective and validated using the INVEST-method

Learning Outcome 4. Transferable Code

BA **You develop efficient, well-organized and working code which is transferable through documentation and version control in a team context.**

An efficient and well-organized = neatly structured with logical variable/method names and a modular structure. Own or external libraries are used to design the application. The design is based on user stories derived from clear architecture diagram.

Documentation = code contains meaningful comments, i.e. for doc. generators.

Version control in a team context = there is at least 1 codebase to which several people have contributed, making use of branching and merging, for example in git.

In a team context = You can co-operate with others and manage an operational team to achieve a shared result.

Learning Outcome 5. Professional Iterations

BA You present the connection between successive iterations in your methodically substantiated, iterative design and development process in a professional manner.

Iterations = improvement steps based on set goals, starting points and revenues.
Methodically substantiated = a suitable research question has been formulated and the choice of different research methods has been substantiated.
Iterative design process = demonstrable divergence and convergence techniques have been used which have resulted in the creative concept.
Iterative development process = the application of the **agile project methodology** has improved over the sprints, there has been demonstrably active and effective collaboration on the media product.
Professional manner = all deliverables should be of professional quality, i.e. skillfully crafted, visually pleasing, created using a professional toolset

Learning Outcome 6. Advice to Stakeholder

BA You advise one or more stakeholders on the effectiveness and technical feasibility of the product you have realized.

Advising = communicating with and presenting to a client in a professional and proactive manner.
Stakeholder = an external party that has an interest in or is affected by your product.
Efficiency and technical feasibility = the product is provided with conclusions and recommendations for a next iteration.

Learning Outcome 7. Personal Professional Focus

BA You investigate what type of professional you would like to become in the long-term, how you distinguish yourself from others in the work field and demonstrate this in a product.

Investigate = research, use and transfer knowledge and skills belonging to the ambition, reflect on that process on the basis of requested feedback from experts and act accordingly.
Type of professional = which professional field and type of positions you aspire to
In the long-term = you focus on future profession (after graduation), on your internship and on the next (specialization) semester.
Product = an interactive media product in which your depth of knowledge is reflected.

Assessment

Formative Indications

During the semester you will build up a portfolio of *project deliverables* which will be used to assess your progress in regards of the learning outcomes. You will submit all your deliverables in Canvas by handing in meaningful (partial) products on the designated assignments.

During the entire semester – so not just around the assessments mentioned below – you are encouraged to gather feedback from your instructors, which will allow you to iteratively improve your portfolio contents up to the final assessment in week 19.
The table below shows the global timeframe for this semester's formally planned formative assessments:

Week 6	Formative indications* after sprint 2
Week 12	Formative indications* after sprint 4
Week 18	Formative indications* after sprint 6
Week 19	Assessors meeting
Week 20	Complete integral semester assessment

* A formative indication is a development-oriented, interim valuation, which forms the input for the summative, integral semester assessment. The summative

Grading Scale

A formative indication is a development-oriented, interim evaluation, that is used as input for the assessor meeting. In this meeting the assessors use all the formative indications to decide on the summative, integral semester assessment. The formative indications are based on all information that is available about your development during the semester. This includes assignments, tests, etc.

Each learning outcome is evaluated according to the development-oriented feedback scale below. This way, during the semester – at least after every sprint – the student will gain insight into the progress of their learning process within the semester.

Undefined	You have not yet undertaken activities to demonstrate the learning outcome.
Orienting	You have made a start and explored the possibilities to demonstrate the learning outcome.
Beginning	You have taken the first steps and carried them out which contribute to demonstrating the learning outcome.
Proficient	You have shown several times that you have created a basis to demonstrate the learning outcome. You will demonstrate the learning outcome at a sufficient level, if you continue your development in this way.
Advanced	You have shown several times that you have been working on this learning outcome with good results. You have performed above expectations and are focused on continuous improvement. You will demonstrate the learning outcome at a more than sufficient level, if you continue your development in this way.

Final Semester Grade

All learning outcomes will be graded per individual during the semester. Based on this, the final semester grade will be decided upon in consultation with all assessors during the assessors meeting in week 19. The assessors will be using the following guidelines or explain how they have deviated from.

Assessment guidelines

- A student with one or more outcomes graded below *Proficient* will obtain *Unsatisfactory (U)*
- A student with all outcomes graded *Proficient* will obtain *Satisfactory (S)* or *Good (G)*
- A student with half or more outcomes graded *Advanced* will obtain Good (G) or Outstanding (O)

During the semester you will receive frequent feedback and the opportunity to improve deliverables and performance in order to demonstrate all learning outcomes (at least at the Proficient level). Since in this way the level of your learning outcomes is measured regularly and early, there are no re-sits to raise the not-yet-proven learning outcome(s) to the desired level after the above moments. A re-sit is only possible in the following semester, by means of a restart or customization.

The final assessment of the semester is expressed in the form of a transfer meeting at the end of the assessor meeting in Outstanding (O), Good (G), Satisfactory (S) or Unsatisfactory (U). Outstanding (O), Good (G) and Satisfactory (S) result in the award of 30 EC and a transfer to the next semester. Unsatisfactory (U) results in restart or customization. In both cases you will receive 0 EC and you will not progress to the next semester.

Didactics of Course-based learning

Before starting your studies at FHICT, you made the choice to follow the course-based learning form and you have successfully completed 2 (two) semesters in this learning form. This means that you are now ready to start in the third semester (S3) within ICT & Media Design in the course-based learning form.

Within the course-based learning method, you choose a structured and predictable learning path, in which the learning outcomes and assessment criteria are determined by the study program. As in the previous semesters, we have a distribution of courses and guided self-study. In S3 you will demonstrate a total of 7 learning outcomes. These learning outcomes and associated assessment criteria are described in the “Learning Outcomes” section of this document.

The education is designed according to the principles of the 4C/ID model (four-component instructional design model). This means that we work with authentic learning tasks that are offered in a structured manner, where there is also room for instruction and training, and where the guidance and support from the lecturer gradually decreases. Education is pre-structured in terms of content, working methods and guidance. Knowledge and skills are applied in practical assignments, which increase in size and complexity during the study program. The student gets more and more choice in a pre-sorted set of learning tasks that are designed according to 4C/ID.

The starting point in S3 is a challenging project based on an authentic situation from practice. Supporting information that you need to carry out your project is offered in the form of lessons and background information. In addition, your tutor will guide you in the implementation of your project. During the semester you will work on different assignments. The teacher will track your development throughout the semester, and you will frequently receive feedback on this. In this way you gain new knowledge and insights so that you can apply them in practice.

Teaching Materials

There are no books required for this semester. There is however, some software recommendations. You don't have to use them but this is what is going to be used for instruction during class:

- Adobe Creative Cloud: for Photoshop/Illustrator
- Maya: for 3D asset creation
- Unity 3d: for interactive 3D content

Schedule Overview

		Media	Programming	UCD
Sprint 1	1	Theory of design / Gestalt Laws	Agile Workshop + User Stories	concept inspiration +research
	2	Creativity & Concepting techniques (Style guides, Mood Boards)	OOD Basic	Double Diamond
	3	Pixel Editing / Advanced Photoshop Techniques	OOD Basic - ES6 Coding style	Concept validation (wizard of oz,physical/ video prototyping)
Sprint 2	4	Sound and Music in Media Production	Versioning&Collab + Documentation + Debugging	Interaction design & prototyping (invision, Axure, Sketch....)
	5	Storytelling	JavaScript + npm+ webpack + modules	Basic statistics,questionnaire, testing
	6	Intro to 3D and interact. Frameworks	Front-end frameworks/JSON/API's	Persuasive technology /motivation/emotional design
Sprint 3	7			
	8	3D Modeling & Rendering	Backend Development	Decision making, game theory
	9	(Realtime) Shading / Lighting	Databases	Lab usability testing, eye tracking
Sprint 4	10	3D Character Creation / Game Asset Creation	Documentation generators	Interaction design best practice/web vs mobile UX
	11	2D / 3D Animation	Unit Testing	Human factors, tangible interface
	12	Game Design Basics	OOD Advanced	High level design (IA)
Sprint 5	13	Interactive Frameworks / Unity : Basics	Realtime Interactive Frameworks	UX designer in organization: UX strategy and business
	14	Interactive Frameworks / Unity : Interactions / Level D.	3D engine programming	UX deliverables, workshop organization
	15	Innovative Hard&Software: VR, AR, Human Interfaces	Hardware Interfacing (frameworks, API's)	Seminar/reading club an interesting book
Sprint 6	16	**Hackathon**		
	17			
	18	**EXPO**		