Courses for 2 year program Game designer

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COURSE DESCRIPTIONS

COURSE Advanced Game Design (3 weeks)

Purpose and goal: The aim of this course is to learn more advanced game design practices (including potential modern framework – if applicable – and enhancing a systems thinking. The goal is to enable designers to think more deeply and clearly about their work so they can produce better, more engaging games for any device or platform.

Knowledge:

- Understanding of what games are and how systems thinking can help promote engagement, interactivity and fun

- Understanding of how to create gameplay and core loops

- Understanding of how to design the player experience and how to build game mechanics that work together

- Being able to identify and understand needs and expectations, and presenting good game design documentation in a professional way

- Understanding how to translate high-level and background design into detailed design

- Understanding of how to build, playtest and iterate early prototypes

- Understanding of how to build a game design career in a industry that keeps changing at breakneck speed.

Skills:
- Analyzing advanced game design practices and framework and understading how to apply them.

- Producing design documentation in a professional way.

- Deep understanding of iterative design process.

- Better understanding of the game industry, roles and positions.

Competences:
- The students gain the competences to analyze and use advanced game design practices and present their game ideas in a professional way.

COURSE Board Game Design (3 weeks)

Purpose and goal:
The aim of the course is to aid the students in making better games, designing better prototypes, and becoming better game designers by using board games as a learning tool. The goal is to learn the principles of game design and basic game design by developing a board game.

Knowledge:
- A basic understanding of the most important principles in game design and game development

- "Rapid-prototyping" with the help of board game laboratory work

- An understanding of how game design can be applied to game development

- A better understanding for how board games and rapid prototypes can aid in design processes.

Skills:
- Create a theoretical game design

- “Rapid prototyping”

- Analysing and planning the design of a game using board games and rapid board game prototypes as tools.

-Applying the fundamentals of game design

Competences:
- Students gain a good understanding of game design and how to apply straight away into rapid physical prototyping.

COURSE Degree Project (10 weeks)

Purpose and goal:
The degree project provides the students with an in-depth study in a self- chosen area in game development, under the guidance of industry experts.

With the support of course leaders and mentors – where is needed, the main goal is to define a challenge in the form of a simulated assignment in a self-chosen specialization area, or to work along with a company and identify a relevant assignment that leads to the same specialization.

Knowledge:
- Relate their knowledge and skills to the current industry needs

- Understand a specialized area of game development

- Understand a specialized role as a game developer in the game industry

Skills:
- Define, plan, structure and implement an in-depth work on a challenge relevant for a specialized area of the game development

- Create an in-dept plan first and then a report that outlines the challenge, documents the process, shows the outcome

Competences:
- The students are given the skills and competences to independently define a challenge, plan and implement a project that answers that challenge in a specialized area of the gaming industry. They gain the competences to structure self-selected projects and learn from experts to produce an advanced part of game development.

COURSE Game project 1 (2 weeks)

Purpose and goal:
Game project 1 is a shorter, less extensive, and less steered game project in preparation for longer, more complex, and more comprehensive productions in upcoming game projects.

The overall purpose is to give the students insight into how actual game production is carried out, both in terms of goal and methods, through “Learning by Doing” and “Learning by Reflection”.

By putting a heavy emphasis on the reflection phase, a good foundation for upcoming game projects is created.

The goal of the project is to develop a game product in a modern game engine. The production is carried out in teams of students from parallel game programs, and feedback is provided by senior developers and project leaders from the game industry.

Knowledge:
- Knowledge of the work process in a game project with a set project time

- Knowledge of the other team roles in a game development project

- Knowledge of planning and executing a game project

Skills:
- How to produce and communicate as a Game designer graphics in a group of game developers

- How to develop a game product in a modern game engine

- Reflecting over the strengths and weaknesses of the project, before upcoming game projects

Competences:
- Understand and utilize their knowledge of and skills in game design in an appropriate way at the right points of the work process, as part of a development team working in a modern game engine in a modern game project.

COURSE Game project 2 (4 weeks)

Purpose and goal:
Game Project 2 is a four-week game project based on knowledge, skills and insights from the planning, implementation and reflection of Game Project 1. The students deepen their skills regarding game production in the modern game engine.

The project form simulates the commercial gaming projects that exist in the gaming industry, working in gaming teams, with technicians and in development environments. "Learning by

Doing" and "Learning by Reflection" are applied at the professional level as a pedagogical method and for feedback.

Knowledge:

- In-depth knowledge of game productions and game projects in a modern game engine

- the work process in a game project with a larger work group during a limited project period with a given deadline.

- planning and preparation with clear goals in a comprehensive game project

- professional feedback and how this is used to improve game production, collaboration in the team and develop a student's own learning

Skills:

- Game development in game teams working in a modern game engine

- Planning and preparation in projects for game development

- Work professionally as a game designer in a group of game developers

- Communicate efficiently and professionally in a game development team

- Apply relevant project methods in game projects

- Receive and use feedback for progress in game productions and own development

Competences:

- Apply their knowledge and skills as a game designer in an appropriate way in the right parts of the process in a game development team in a modern game project. Competences to work as a game designer in a game team that uses a modern game engine.

COURSE Game project 3 (7 weeks)

Purpose and goal:
Game Project 3 is based on knowledge and skills from previous courses and game projects, which prepare students for a longer, more comprehensive and more complex game project.

The project is carried out in Unity, with the aim of teaching students another of the most accepted open-source tools used for game development. The goal of introducing a new game engine is that students should be able to apply their knowledge and skills to different tools (game engines) in the future.

Knowledge:

- To develop games in game teams in the game engine Unity

- Agile project methodology adapted for game development projects

- Longer and more advanced and complex game development projects

- To produce work relevant to the professional gaming industry at a professional level

Skills:

- Produce game design in a game team in Unity's development environment

- Work efficiently in a larger, more complex game project with high demands on delivery and results

- Communicate effectively and professionally as a game designer in a development team

- Use and adapt agile project methods in game development projects

Competences:

- Understand and be able to apply their knowledge and skills as a game designer in an appropriate way in the right part of the process in a development team in a modern game project.

- Understand and follow agile project methodology for game development.

- Competence to produce relevant design and games in a game team in the development environment Unity.

- Competence to work and communicate as one of several key competencies in a modern game development team.

COURSE Game project 4 (4 weeks)

Purpose and goal:

The purpose of the course is to work in a group with several game developers from different disciplines in a shorter game production at a high level. Game project 4 is a project with high demands on work processes and results where great emphasis is placed on reflection and insights that are intended to be preparatory for subsequent game projects with more responsibility and higher complexity.

The goal is to produce a game with a modern game engine with feedback from representatives from the gaming industry.

Knowledge:

- Be able to account for different professional roles in a game production.

- Be able to account for the different phases of a game production.

- Be able to report on planning, work processes and working in a group with several game developers.

- Be able to report on agile working methods for a game production.

Skills:
- Be able to program a game with a modern game engine with several game developers.

- Be able to reflect on work processes and results in a game production with several game developers.

- Be able to work with an agile working method.

Competences:
- With multiple game developers delivering a game created with a modern game engine.

COURSE Internship (LIA) (30 weeks)

Purpose and goal:
An internship (LIA) aims to introduce and strengthen the student in their new professional role in the gaming industry, while the student continues their learning under supervision in real world context at a self-chosen workplace. The goal of LIA is an employment with the LIA company or with one of its partners. Thus, another purpose of LIA is for the student to strengthen and broaden their network in the gaming industry.

Skills:
- Understanding the work of the LIA company, its partners, suppliers and other stakeholders in the industry.

- Industry structure, growth, trends and opportunities / threats.

- The tasks and areas of responsibility of one's own professional role.

- Other related professional roles and competencies.

- The structure and make up of key people in professional team.

- Customers, sponsors, financiers and other stakeholders.

- Trends, pace of development and new technologies.

deepen a student’s knowledge from their education in professional practice.

- Produce as part of a team working with game development.

- Act and work with a student’s specific key competence in a gaming team.

- Plan and produce syntax for games.

- Create functions based on the customer's and user's needs and wishes.

- Adapt and set program structure for ann existing game layout and interface.

- Participation in the production of games in a real workplace.

- Analysis of ones own work. The analysis is described in an interim report and a final report, respectively.

Competences:
- Through their LIA, the student gets a clear insight into developing game developer role in real world game projects and gets the opportunity to specialize in the valuable roles a game programmer can take responsibility for.

COURSE Introduction to Visual Scripting (5 weeks)

Purpose and goal:
The aim of the course is to let the student gain a basic understanding of game development and game design, with the help of visual programming in a modern game engine.

Knowledge:
- General knowledge about game design

- An understanding of game design and player experience in a modern game production

- An understanding of all the components required to create a game

- Knowledge of a modern game engine

- Knowledge about the iterative design process of creating a game

- Taking part in a game development team

Skills:
- Using visual programming to create different prototypes

- Implementation of basic game design in a modern game engine

- Carrying out an effective working procedure for a game production

- Taking part in a game development team

Competences:
- The student should have anunderstanding of the basic working procedure as a game designer

in a game production, and the competences required in making a functioning digital game in a modern game engine.

COURSE Level Design and World Creation (5 weeks)

Purpose and goal:
The aim of the course is to give the student an understanding of game design, and the possibilty to show their skills in a practical level design project. The goal is to build different types of environments and game levels.

Knowledge:
- Understanding what makes a good environment in a game production

- Skills in level design adapted for one or more players

- Knowledge of how to write a level design document, and the ability to communicate level design in an effective way

- An understanding of how audio-visual effects affect the computer game experience, and how to effectively visualize environments

Skills:
- Creating good and suitable environments in a game production

- Optimizing environments and levels in suitable ways

- Creating good and pedagogical descriptions of environments

- Presenting environments and conveying level design

Competences:
- The students should understand level design and the competence to create suitable levels for relevant game productions. They should be able to describe and communicate this in a professional and pedagogical way.

COURSE Market Analysis CV and Portfolio (3 weeks)

Purpose and goal:
The aim of the course is to create a situational understanding of Sweden's game companies, and at the same time an understanding of the game companies' current competence needs. The goal is to study a significant number of game companies in Sweden. A further goal is to visit a number of game companies. The students learn to relate their own competences to the needs of the game companies. They learn to write suitable CVs and create digital portfolios for a number of game companies.

Knowledge:
- An understanding of the Swedish game industry

- Knowledge of the different game companies in Sweden

- An understanding of one's own career choices

Skills:
- Creating industry analyses

- Writing a CV

- Creating a suitable and digital portfolio for computer game companies

Competences:
- Students gain a good understanding of the structure, competence needs, and actors of the Swedish game industry. They gain the competence to create relevant and suitable CVs and digital portfolios for computer game companies.

COURSE Narrative design (3 weeks)

Purpose and goal:
The aim of the course is understanding how narratives work in modern games in the current game industry and describing the role of a narrative game designer. The aim is to work with different narratives for games in a practical way, through lectures, workshops, and group exercises.

Knowledge:
- The knowledge of different tools for conveying different narratives to games

- Knowledge of characters and dialogue

- Knowledge of the working role of a narrative game designer

Skills:
- Writing narrative texts for games

- Creatively designing characters and dialogue for games

Competences:
- The student shall have a basic understanding of the field and responsibilities of the narrative game designer, as well as an understanding of how to work with these skills in a team setting. An understanding of supporting a team in conveying the narrative vision of the game.

COURSE Prototyping in UE (2 weeks)

Purpose and goal:
The purpose of this course is to teach students how to manage major game productions and learn more advanced features by using Unity and scripting in C#.

Knowledge:
- Demand-driven game production
- Understand how to develop major games which require a larger game development team and a better planning
- Exploring more advanced features in Unity
- Conceptualization and prototyping with bigger development teams (artists, animators, programmers).

Skills:
- Providing students with technical competences for a larger game project
- Conceptualization and prototyping
- More advanced features in Unity and scripting in C#

Competences:
- The students get good skills in preparing themselves and a larger game development team for game productions in Unity.

COURSE Prototyping in Unity (2 weeks)

Purpose and goal:
The purpose of this course is to teach students to prepare major game productions for a development team in a C # based game engine such as Unity. The goal is to analyze assignments and needs and work out a basis for a larger game team and game projec

Knowledge:
- Demand-driven game production

- How to prepare a game design for a larger game development team

- More advanced features of Unity

- To prepare game production for game artists and game programmers and support conceptual development of ideas and assignments

Skills:
- Create technical preparation for a major game project

- Conceptualize for game production

- Experiment and prepare for games development in Unity

Competences:
- The students get skills in preparing themselves for working in a larger game development team for game productions in Unity

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COURSE Quality Assurance (2 weeks)

Purpose and goal:
The aim of the course is to create an understanding of the role of the quality assurer in a game development process, with theoretical lectures, practical exercises, and play-test analysis.

Knowledge:
- An understanding of the QA role within a game production

- Designing for testability, designing a game to be testable

- Planning and control, identifying what is needed for testing and how to measure it

- Functional vs. non-functional testing, "what" the game does as opposed to "how" it does it

- An understanding of the tools and processes which can be implemented to achieve a high quality

Skills:
- Designing for testability

- Planning and executing focused testing sessions

- Creating reports and suggesting improvements

- Utilizing tools to achieve high quality

Competences:
- The students gain an understanding for QA in game development, and the competence to execute tests and implement improvements in game development.

COURSE Scripting and Unity (3 weeks)

Purpose and goal:
The aim is that the students gain an understanding for basic and customized scripting for game development in Unity. The goal is immersion in Unity as a game engine and creating advanced functions, which require scripting.

Knowledge:
- Understanding the role and responsibility of a scripter within game development

- Understanding advanced functions in the Unity game engine

- Understanding differences between C# and visual programming or text-based scripting

- Understanding how scripting and programming affect a game production and how games can be optimized

Skills:
- Handling Unity in a more advanced way

- Creating customized scripts and functions

- Analyzing and assessing functions to the optimal and expected effect

Competences:
- Students gain a good understanding of the Unity game engine, and the competence to modify a game production utilizing different script-based functions.

COURSE User Experience and Interaction Design (2 weeks)

Purpose and goal:
The aims of the course are to give a good grasp of what a UX designer needs to understand and how UX design can improve games' applicability, availability, and maximize entertainment. The goal is to analyze and implement adjusted design to different user groups, through lectures and game projects.

Knowledge:
- Understanding players' behaviors

- Understanding how a player gains and processes information, as well as solve problems in different ways

- Knowledge of good applicability to making a game more accessible

- Basic principles in game design to affect decision-making

- Motivation and different reward systems

- Understanding the influence of different technical interfaces

- Understanding how to include and exclude target audiences in game design

Skills:
- Analyzing and understanding target audience

- How to make a game more applicable and accessible

- Producing personas for game experiences and defining how to affect experiences and decisions as a developer

- Designing different interfaces for a game

Competences:
- The student will gain the competence to analyze and implement good game design based on modern UX in game development.
