COURSE SYLLABUS

Från grafik till spel - konstruktion av nivåverktyg

From Graphics to Game - Construction of Level Editor

7,5 ECTS credit points (7,5 högskolepoäng)

Course code: UD1414
Educational level: Basic level
Course level: G2F
Field of education: Technology
Subject group: Computer Technology

1 Course title and credit points
The course is titled From Graphics to Game - Construction of Level Editor/Från grafik till spel - konstruktion av nivåverktyg and awards 7,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval
This course is established by Head of Department of Creative Technologies 2014-09-01. The course syllabus was revised by Head of Department of Creative Technologies and applies from 2014-09-01. BTH-4.1.1-0213-2014

3 Objectives
The course objective is that the student will acquire knowledge and skills in applied effects for digital game applications. The work process between editing programs and game application can be facilitated by using user-defined data connections. A central part in game development is therefore to handle and transform content data, for example 3D models. Making it in real time requires an understanding of how data connections between applications can be resolved.

4 Content
• Handling and processing content data for games in real time.
• Analysis, design and implementation of WYSIWYG software.
• Implementation of self-defined special effects.

5 Aims and learning outcomes
Knowledge and understanding
After the course the student will:
• overall understand and be able to independently explain how content data can be handled in a game’s development process.

Skills and abilities
After the course the student will:
• be able to independently describe how content data are managed and transformed between editing programs and digital game application.
• be able to use and expand the existing software functionality by together with other students create user-defined data connections.
• independently, based on a problem description, design and construct viable tools suited for digital game development.

Values and attitudes
After the course the student will:
• be able to argue about the choice of design
• be able to argue about the pros and cons of own constructed level tools

6 Learning and teaching
The course will be given as a campus course. As support is the BTH learning platform where course material is distributed and information concerning the course is published. The first half of the course consists of lectures and reviews of theory that the student then puts into practice with laborations. The student work during the later part of the course in a group project specified by the teacher. The task is to develop WYSIWYG software for a motivated, user-defined, data connection. Each individual student describes his project effort in a report as well as how the group solution is suitable in a digital game development process.

7 Assessment and grading
Examination of the course

<table>
<thead>
<tr>
<th>Code</th>
<th>Module</th>
<th>Credit</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1210</td>
<td>Laboration</td>
<td>3 ECTS</td>
<td>G–U</td>
</tr>
<tr>
<td>1220</td>
<td>Project in group</td>
<td>4.5 ECTS</td>
<td>G–U</td>
</tr>
</tbody>
</table>

The course will be graded G Pass, UX Insufficient, supplementation required, U Fail. On request grades according to ECTS will be given.
8 Course evaluation
The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feedback into the development of the course.

9 Prerequisites
For admission to the course requires that students have completed the following courses: Plug-in design and scripting, 3D programming II, and from graphics to game - the design of export and import software.

10 Field of education and subject area
The course is part of the field of education and is included in the subject area Digital Game Development.

11 Restrictions regarding degree
The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

12 Course literature and other teaching material
1. Title: Complete Maya Programming Volume II, Volume 2: An In-depth Guide to 3D Fundamentals, Geometry, and Modeling
   Author: David Gould
   Publisher: Morgan Kaufmann
   Published: 2005
   Pages: 744
   ISBN-10: 0120884828

2. Title: Complete Maya Programming: An Extensive Guide to MEL and C++ API
   Author: David Gould
   Publisher: Morgan Kaufmann
   Published: 2003
   Antal sidor: 528
   ISBN-10: 1558608354

3. Title: Introduction to 3D Game Programming with DirectX
   Author: Frank D. Luna
   Published: 2012, Antal sidor: 864
   ISBN10: 1936420228