804250 - P3VJ - Project III

Coordinating unit: 804 - CITM - Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre

Academic year: 2019
Degree: BACHELOR’S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Teaching unit Compulsory)

ECTS credits: 6  Teaching languages: Catalan, Spanish, English

Teaching staff

Coordinator: Pillosu González, Ricard
Others: Belmonte Martínez, Pablo
Ripoll Tarré, Marc

Degree competences to which the subject contributes

Specific:
CEVJ 2. Schematically and visually represent complex concepts, ideas and/or data based on personal skills and external references, in order to convey attractiveness, originality and creativity.
CEVJ 1. Design the mechanics, rules, structure, script and artistic concept of a video game, maximising immersion and criteria of playability and balance to provide the best possible user experience.
CEVJ 5. Use programming languages, algorithmic patterns, data structures, visual programming tools, game engines and libraries for the development and prototyping of video games, in any genre and for any platform and mobile device.
CEVJ 6. Analyse, decide upon and apply graphic programming techniques, physics, artificial intelligence, interaction, augmented reality and networks to a video game project.
CEVJ 8. Design, model, texture and animate 2D and 3D objects, characters and scenes for inclusion in digital projects, audiovisual sequences and video games.
CEVJ 13. Undertake and manage video game design and development projects, including planning, direction, execution and evaluation.

Teaching methodology

The teacher will take the role of a studio owner and will ask for an idea to be developed. The students, working as a production team, will split into departments and work in the lines of a realistic game studio.

Following the SCRUM methodology, the teacher will evaluate every sprint individually.

Learning objectives of the subject

Learn how to embark in the development of a 3D video game of mid-big size.
Learn how to work in an extensive team divided by departments and coordinate with the rest.
How to structure the development like a micro AAA studio.
### Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 18h</th>
<th>12.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>20.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group:</td>
<td>0.00%</td>
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<td></td>
<td>Guided activities:</td>
<td>8.00%</td>
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<tr>
<td></td>
<td>Self study:</td>
<td>60.00%</td>
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</tbody>
</table>
# Concept Discovery

**Description:**
- First iteration on the technical documentation
- Getting the technology required ready
- First pass on the GDD

**Learning time:** 10h
- Theory classes: 4h
- Self study: 6h

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# Vertical Slice

**Description:**
- First playable demo that test the basic technology needed.
- Gameplay test and GDD iteration.
- Testing the technology with biggest risks.

**Learning time:** 30h
- Theory classes: 12h
- Self study: 18h

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# Production Planning

**Description:**
- Generation of all needed tasks for the development (backlog).
- Estimation of all the tasks.
- Risk management.

**Learning time:** 5h
- Theory classes: 2h
- Self study: 3h

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# Alpha 1

**Description:**
- Creation of the first level of the game:
  - Iteration in gameplay code / technology / UI
  - Environment art / characters / animations
  - Iteration in level design and player progression.

**Learning time:** 20h
- Theory classes: 8h
- Self study: 12h
<table>
<thead>
<tr>
<th>Stage</th>
<th>Learning time:</th>
<th>Description:</th>
</tr>
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</table>
| **Alpha 2** | 20h            | Theory classes: 8h  
Self study : 12h  
Description:  
Repeating the same process from Alpha 1 to create the second level of the game:  
- Retrospective and process improvement.  
- Backlog review. |
| **Alpha 3** | 20h            | Theory classes: 8h  
Self study : 12h  
Description:  
Repeating the same process from Alpha 1 to create the second level of the game:  
- Retrospective and process improvement.  
- Backlog review.  
- Content creation for game last level. |
| **Polish** | 10h            | Theory classes: 4h  
Self study : 6h  
Description:  
Last improvement to the game:  
- Art polish.  
- Code optimizations.  
- Tide up documentation. |
| **Beta**   | 10h            | Theory classes: 4h  
Self study : 6h  
Description:  
Follow a strict beta process:  
- Stabilization rounds.  
- Bug distribution.  
- Contiguos integration. |
The subject is purely practical and will use an individualized evaluation per milestone:

- Concept Discovery 10%
- Vertical Slice 1 10%
- Vertical Slice 2 10%
- Production Planning 5%
- Alpha 1 10%
- Alpha 2 10%
- Alpha 3 10%
- Polish 5%
- Beta 10%
- Gold 20%

**Bibliography**

**Basic:**