Course guide
804350 - PPA-A - Advanced Postproduction

Unit in charge: Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre.
Degree: BACHELOR'S DEGREE IN DESIGN, ANIMATION AND DIGITAL ART (Syllabus 2017). (Optional subject).
Academic year: 2022 ECTS Credits: 6.0 Languages: Spanish

LECTURER
Coordinating lecturer: Bolarín Molina, Salvador

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CEAAD 3. Master the wide range of professional tools in the sector for developing all kinds of digital content.
CEAAD 7. Apply advanced modelling and animation, post-production and special effects techniques in the development of digital content and/or its inclusion in professional fields of digital art such as the film and video game industries.

Transversal:
04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.
06 URI. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.
07 AAT. SELF-DIRECTED LEARNING. Detecting gaps in one’s knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one’s knowledge.

TEACHING METHODOLOGY
The subject combines the following methods:
- Master classes
- Exercises in class with computer
- Student presentations
- Visualization and analysis of real projects
- Completion of exercises and projects autonomously with follow-up during the classes.

LEARNING OBJECTIVES OF THE SUBJECT

(ENG)

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>18,0</td>
<td>12.00</td>
</tr>
<tr>
<td>Guided activities</td>
<td>16,0</td>
<td>10.67</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Type</td>
<td>Hours</td>
<td>Percentage</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>26.0</td>
<td>17.33</td>
</tr>
</tbody>
</table>

**Total learning time:** 150 h

**CONTENTS**

**Tema 1: Introduction to the CGI world.**

**Description:**
1. Introduction to: Photography, Cinematography, Color, Geometry, Animation, Motion Graphic, and Visual Effects.

**Related activities:**
Ejercicios propuestos en la Práctica P01. Still Image Creation

**Full-or-part-time:** 10h
- Practical classes: 4h
- Self study: 6h

**Tema 2: Visual Effects Production: VFX**

**Description:**
1. VFX production
2. VFX production
3. VFX Postproduction

**Related activities:**
Exercises proposed in Practice P02. Analysis of a VFX project

**Full-or-part-time:** 25h
- Practical classes: 10h
- Self study: 15h

**Tema 3: Procedural Theory: Houdini**

**Description:**
1. Differences with other 3D Software
2. Interface
3. Workflows
4. Modeling and Procedural Modeling
5. Digital Asset concept
6. Attributes, Variables and Functions
7. UV introduction
8. Cameras, Lights and Render
9. Introduction to Materials

**Related activities:**
Exercises proposed in Practice P03 Modeling Work.
Exercises proposed in Practice P04 Work with Expressions.
Exercises proposed in Practice P05 Camera Animation Work.
Exercises proposed in Practice P06 Material Creation Work.
Exercises proposed in Practice P07 Work Lighting and Rendering.

**Full-or-part-time:** 35h
- Practical classes: 14h
- Self study: 21h
Tema 4: Particles

Description:
1. Particle Simulation

Related activities:
Exercises proposed in Practice P08 Work with Particles (Rain)
Exercises proposed in Practice P09 Work with Particles (Sand)

Full-or-part-time: 25h
Practical classes: 10h
Self study: 15h

Tema 5: Volumes

Description:
1. Concepts and Basics
2. VDB

Related activities:
Exercises proposed in Practice P10 Work with volumes.

Full-or-part-time: 25h
Practical classes: 10h
Self study: 15h

Tema 6: Rigid Bodies

Description:
1. Concepts and Basics
2. Workflows
3. Geometry
4. Fractures
5. RBD simulation

Related activities:
Exercises proposed in Practice P11 Work with Rigid Bodies.
Exercises proposed in Practice P12 Working with Rigid Bodies 2

Full-or-part-time: 25h
Practical classes: 10h
Self study: 15h

GRADING SYSTEM

The final grade of the subject will be obtained from:

- Theoretical Partial Exam: 20%
- Delivery of practical exercises (10/12): 40%
- Final project delivery: 30%
- Participation and attitude of learning: 10%
BIBLIOGRAPHY

Basic: