

804350 - PPA-A - Advanced Postproduction

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 DESIGN, ANIMATION AND DIGITAL ART (Syllabus 2017). (Teaching unit Optional)		
ECTS credits:	6	Teaching languages:	Spanish

Teaching staff

Coordinator: Bolarín Molina, Salvador

Degree competences to which the subject contributes

Specific:

CEAAD 3. (ENG) Master the wide range of professional tools in the sector for developing all kinds of digital content.

CEAAD 7. (ENG) Aplicar técnicas de modelado y animación avanzada, postproducción y efectos especiales para la elaboración de contenidos digitales y/o su inclusión en ámbitos profesionales del arte digital como en la industria cinematográfica y la del videojuego.

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)

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Study load

Total learning time: 150h	Hours large group:	18h	12.00%
	Hours medium group:	26h	17.33%
	Hours small group:	0h	0.00%
	Guided activities:	16h	10.67%
	Self study:	90h	60.00%

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Content

<p>Tema 1: Introduction to the CGI world.</p>	<p>Learning time: 10h Practical classes: 4h Self study : 6h</p>
<p>Description: 1. Introduction to: Photography, Cinematography, Color, Geometry, Animation, Motion Graphic, and Visual Effects.</p> <p>Related activities: Ejercicios propuestos en la Práctica P01. Still Image Creation</p>	
<p>Tema 2: Visual Effects Production: VFX</p>	<p>Learning time: 25h Practical classes: 10h Self study : 15h</p>
<p>Description: 1.VFX production 2.VFX production 3.VFX Postproduction</p> <p>Related activities: Exercises proposed in Practice P02. Analysis of a VFX project</p>	
<p>Tema 3: Procedural Theory: Houdini</p>	<p>Learning time: 35h Practical classes: 14h Self study : 21h</p>
<p>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</p> <p>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.</p>	

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<p>Tema 4: Particles</p>	<p>Learning time: 25h Practical classes: 10h Self study : 15h</p>
<p>Description: 1. Particle Simulation</p> <p>Related activities: Exercises proposed in Practice P08 Work with Particles (Rain) Exercises proposed in Practice P09 Work with Particles (Sand)</p>	
<p>Tema 5: Volumes</p>	<p>Learning time: 25h Practical classes: 10h Self study : 15h</p>
<p>Description: 1. Concepts and Basics 2. VDB</p> <p>Related activities: Exercises proposed in Practice P10 Work with volumes.</p>	
<p>Tema 6: Rigid Bodies</p>	<p>Learning time: 25h Practical classes: 10h Self study : 15h</p>
<p>Description: 1. Concepts and Basics 2. Workflows 3. Geometry 4. Fractures 5. RBD simulation</p> <p>Related activities: Exercises proposed in Practice P11 Work with Rigid Bodies. Exercises proposed in Practice P12 Working with Rigid Bodies 2</p>	

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Qualification 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:

Schaefer, Dennis; Salvato, Larry. Maestros de la luz: conversaciones con directores de fotografía. Madrid: Plot, 1990. ISBN 8486702089.

Birn, Jeremy. Digital lighting & rendering. 3rd ed. Berkeley, CA: New Riders, cop. 2014. ISBN 0321928989.

Bloch, Christian. The HDRI handbook 2.0: high dynamic range imaging for photographers and CG artists. Rocky Mountain Books, 2013. ISBN 9781937538163.

Jhon Maeda. Las Leyes de la Simplicidad. 3rd ed. Barcelona: Gedisa, 2008. ISBN 978-84-7984-159-7.

Premse.org. Never Touch a Painting When Its Wet. 2nd ed. Amsterdam: Bis Publishers, ISBN 978-90-6369-280-3.

Michio Kaku. Física de lo Imposible. 6 ed. Barcelona: Debate, 2012. ISBN 978-84-8306-825-0.

Varios. Atlas de Matemática. Entre la Abstracción y lo Cotidiano. Descubrir. Verticales de Bolsillo, ISBN 978-84-342-3605-9.