

804257 - PEE - Post-Production and Special Effects

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 Optional) BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Teaching unit Optional)
ECTS credits:	6
Teaching languages:	Spanish

Teaching staff

Coordinator:	Bolarín Molina, Salvador
Others:	González García, Iñaki

Degree competences to which the subject contributes

Specific:

- CEVJ 7. (ENG) Dominar el gran abanico de herramientas profesionales del sector para la elaboración de contenidos digitales de todo tipo.
- CEVJ 8. (ENG) Dissenyar, modelar, texturitzar i animar objectes, personatges i escenes 2D i 3D per la seva inclusió en projectes digitals, seqüències audiovisuals i videojocs.
- CEVJ 9. (ENG) Aplicar técnicas de modelado y animación avanzada, postproducción y efectos especiales para la elaboración de contenidos digitales y/o su inclusión en un proyecto de videojuego.

Transversal:

- 01 EIN N1. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.
- 02 SCS. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.
- 07 AAT N3. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
- 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.

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

- Know the basic concepts of the capture, lighting and composition of the image

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- Create image compositions using digital tools
- Analyze the different stages of creation of visual products: preproduction, production, postproduction
- Know the most used tools in the industry
- Obtain the necessary knowledge to complete a kinematics

Study load

Total learning time: 150h	Hours large group:	18h	12.00%
	Hours medium group:	30h	20.00%
	Hours small group:	0h	0.00%
	Guided activities:	12h	8.00%
	Self study:	90h	60.00%

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Content

<p>VISUAL EFFECTS</p>	<p>Learning time: 2h 30m Theory classes: 1h Self study : 1h 30m</p>
<p>Description:</p> <ul style="list-style-type: none"> - Introduction - Preproduction - Production - Postproduction 	
<p>LIGHT</p>	<p>Learning time: 2h 30m Theory classes: 1h Self study : 1h 30m</p>
<p>Description:</p> <ul style="list-style-type: none"> - Theory of light - Behavior of light - Light and materials - Light and Shadows 	
<p>title english</p>	<p>Learning time: 2h 30m Practical classes: 1h Self study : 1h 30m</p>
<p>Description:</p> <ul style="list-style-type: none"> - Introduction - The camera and the objectives - Light and exposure 	
<p>title english</p>	<p>Learning time: 2h 30m Practical classes: 1h Self study : 1h 30m</p>
<p>Description:</p> <ul style="list-style-type: none"> - Introduction - Composition - Movements and perspective - Cameras. characteristics 	

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<p>COLOR THEORY</p>	<p>Learning time: 2h 30m Theory classes: 1h Self study : 1h 30m</p>
<p>Description: - Basic aspects of digital color</p>	
<p>HOUDINI FUNDAMENTALS</p>	<p>Learning time: 37h 30m Practical classes: 15h Self study : 22h 30m</p>
<p>Description: - Introduction to Houdini - Differences with other 3D Software - Interface - Workflows - Modeling and Procedural Modeling - Digital Asset Concept - Attributes, Variables and Functions - Introduction to UV - Cameras, Lights and Renders - Introduction to Materials - Introduction to Particles</p>	
<p>HOUDINI: DYNAMIC SYSTEMS</p>	<p>Learning time: 37h 30m Practical classes: 15h Self study : 22h 30m</p>
<p>Description: - Introduction to dynamics and simulations - Particle systems - Volumetric systems - Systems of rigid bodies - Fluid systems</p>	

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PROJECTS	Learning time: 52h 30m Guided activities: 21h Self study : 31h 30m
Description: <ul style="list-style-type: none">- Particle project without simulation- Particle project with simulation- Project of volumes without simulation (Static Procedural Volume)- Project of volumes with simulation (Smoke Solver)- Simulation project of rigid bodies- Fluid simulation project	

Qualification system

The final grade of the subject will be obtained from:

- Theoretical Partial Exam: 20%
- Delivery of practical exercises (4): 40%
- Theoretical Final Exam: 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.
- Brown, Blain. *Cinematografía*. Barcelona: Omega, 2008. ISBN 9788428214360.
- Martínez Abadía, José; Serra Flores, Jordi. *Manual básico de técnica cinematográfica y dirección de fotografía*. Barcelona [etc.]: Paidós, cop. 2000. ISBN 8449309859.
- Berger, John. *Modos de ver*. Barcelona: Gili, 1974. ISBN 9788425218071.
- Tornquist, Jorrit. *Color y luz: teoría y práctica*. Barcelona: Gustavo Gili, cop. 2008. ISBN 9788425222177.
- Heller, Eva. *Psicología del color: cómo actúan los colores sobre los sentimientos y la razón*. Barcelona: Gustavo Gili, 2004. ISBN 8425219779.
- Langford, Michael John. *Fotografía básica*. Nueva ed. Barcelona: Omega, DL 1991. ISBN 8428200906.
- Jardí, Enric. *Pensar con imágenes*. Barcelona: Gustavo Gili, 2012. ISBN 8425224365.
- 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.