Universidade de Vigo

IDENTIFYING DATA

Audiovisual production CGI

Subject	Audiovisual production CGI
Code	V05G301V01420
Study programme	Grado en Ingeniería de Tecnologías de Telecomunicación

Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	1st

Teaching language	Spanish
Department	
Coordinator	Fernández Santiago, Luis Emilio
Lecturers	Fernández Santiago, Luis Emilio
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Web	http://https://moovi.uvigo.gal/
General description	General knowledge of the processes of production and realization of Audio and video, aim to achieve the skills needed to work in a team of production/realization, mainly in the technical positions. using cameras, edition systems and creation of CG content. The documentation will be in English

Training and Learning Results

Code	
B4	CG4: The ability to solve problems with initiative, to make creative decisions and to communicate and transmit knowledge and skills, understanding the ethical and professional responsibility of the Technical Telecommunication Engineer activity.
B8	CG8: To know and apply basic elements of economics and human resources management, project organization and planning, as well as the legislation, regulation and standarization in Telecommunications.
B12	CG12 The development of discussion ability about technical subjects
C74	(CE74/OP17) The ability to construct, exploit and manage image and synthetic video generation systems and interactive multimedia applications.
C80	(CE80/OP23) The ability to conceptually and technically manage the phases in an audiovisual production.
C81	(CE81/OP24) The ability to creatively and skillfully use the technical equipment for production development.
C82	(CE82/OP25) The ability to use specific software applications in audiovisual production.
C83	(CE83/OP26) The ability to organize an audiovisual production.
D2	CT2 Understanding Engineering within a framework of sustainable development.

Expected results from this subject

Expected results from this subject	Training and Learning Results		
Know the phases and the technical positions of an Audiovisual production.	B4 B8 B12	C80 C83	
Identify the distinct audiovisual structures.		C80 C83	
Know how to use the necessary technologies for the development an audiovisual production.	B4 B12	C74 C80 C81 C82	D2
Know how to use the software tools of postproduction.	B12	C74 C81 C82	
Know how to manage an audiovisual project.	B4 B8 B12	C80 C81 C83	D2

Contents

Topic	
Production and realization techniques.	Audiovisual language basics.
The audiovisual production: characteristic and production and realization workflow.	Workflow for Vfx, 3DCGI and interactive. Pipelines. Production charts.
Audiovisual structures, linear and interactive.	The script as a technical document. Technical breakdown.
Computer Generated Image.	Producción assets (geometry, shaders, animation) Graphic and render Engines.
Virtual enviroments: elements and creation of the levels.	Layouts, terrains, lighting.
Creation of contents and catchment of sound and image.	Basics of video cameras handling. Basics os Audio for film.
Audiovisual projects Management.	Gestion of media, data and control of a production. Pipelines And Workflows.
Postproduction systems.	NLE. Basics of Video composicion: Layers and channels. Color, grading and Conform.
(*)Prácticas de creación digital	(*)Creación de elementos simples 3D en motor gráfico
(*)Prácticas de grabación y Edición	(*)Producción audiovisual desde guión a máster.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	21	21	42
Laboratory practical	7	7	14
Workshops	14	7	21
Objective questions exam	2	0	2
Laboratory practice	5	15	20
Project	5	18	23
Project	7	18	25
Report of practices, practicum and external practices	0	3	3

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Theoretical sessions on concepts of visual language, formats, equipment and their use. Elements of linear and interactive visual production, workflows and integration of technical personnel in production teams. CG8 CG12 CE80 CE82 CT2
Laboratory practical	Creation of synthetic elements and use of graphic engines for Audiovisual Production.
Workshops	Practical classes on obtaining images and sounds, Creation of synthetic elements and postproduction for the creation of audiovisual products. The work is done in work groups, with rotation in the positions to ensure individual contact with the different resources. CG12 CE74 CE81 CE82

Personalized assistance

Methodologies	Description
Workshops	Use of audiovisual production equipment and software, question time during workshop, access to office and questions via email or message. Individual report about the contents.

Tests	Description
Laboratory practice	Use of audiovisual production equipment and software, question time during workshop, access to office and questions via email or message. Individual report about the contents.
Project	Access to office and solution of doubts via email or message. Schedule of office time in https://moovi.uvigo.es/

Assessment

Description	Qualification Training and Learning Results

Objective questions exam	Test, theoretical contents and practical concepts of the subject.	20	B4	C80 C81 C82	
Laboratory practice	Insertion of elements in graphic engine. (Individual)	20	B4	C74 C81 C82	D2
Project	Screenplay and recording of a scene. (Group)	20	B4 B8 B12	C81 C83	D2
Project	Technical screenplay and edition of a scene. (Individual)	25	B4 B8 B12	C74 C80 C81 C82 C83	D2
Report of practices, practicum and external practices	Report on the assessment of the production process in the different cases and conclusions of the practices.	15	B8 B12	C80 C83	D2

Other comments on the Evaluation

Breakdown:

Insertion of elements in graphic engine. (Individual) 20% (~4 weeks)
Script and recording of a scene. (Group) 20% (~8 weeks)
Technical script and editing of a scene. (Individual) 25% (~13 weeks)
Report (Individual) 15% (~13 weeks)
 Students must explicitly determine in the first delivery of material if they opt for continuous evaluation, in this case the final grade cannot be "not presented". In group practices, the work of each member will be supervised by the teacher.

 The global evaluation requires the delivery of the practices, taking the group as individual (the student will need to set up a human team of collaborators to carry out this), coinciding with the date of the exam In extraordinary and end-of-degree calls, it will be necessary to pass a Test-type test (30%-theoretical content and practical concepts of the subject) and questions to be developed (30%-knowledge of the production process and formats) and ONE practical solvency exercise in autonomous camera management and NLE editing O (xor) insertion of elements in graphic engine O (Xor) development of production flow from a technical script. (40%). The note will be the sum of the percentages.
 The marks of the parts passed from the ordinary call are kept for the extraordinary during the same course if the student wishes. In the event of detection of plagiarism in any of the tests or papers, the final grade will be FAIL (0) and the fact will be communicated to the Center's management for appropriate purposes.

Sources of information
Basic Bibliography
Dunlop, Renee, **Production Pipeline Fundamentals for Film and Games**, 1st Edition, Focal Press, 2014

Zwerman, Susan & Okun, Jeffrey A., **The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures**, 2nd ed, 2014

MMILLERSON, GERALD. OWENS, JIM, **Television production**,
Complementary Bibliography
ALTEN, STANLEY, **Audio in media**,

TRIBALDOS, CLEMENTE, **Sonido profesional**,

RUMSEY, FRANCIS. MCCORMICK, TIM, **Sonido y grabación; Introducción a las técnicas sonoras**, 2ª edición,

ONDAATJE, MICHEL, **The Conversations: Walter Murch and the Art of Editing Film**,

BRINKMANN, R., **The art and science of digital compositing**, 2nd ed,

HERRERO, JULIO CESAR, **Manual de teoria de la información y telecomunicación**, 2009,

Glor, Flax & Sardella, Andrea, **Filmmaking Simplified: Practical Techniques for Getting More out of Any Production**, Edition: 1, kindle,

Recommendations

Subjects that are recommended to be taken simultaneously
Video games and virtual reality/V05G301V01417

Subjects that it is recommended to have taken before
Design of audiovisual installations/V05G301V01334
Interactive Audio Systems/V05G301V01331