



ACADEMIC PROGRAM

DIGITAL PRODUCTION

B.F.A. IN ANIMATION

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Digital Production
Degree :	Animation
Location:	Centro Universitario de Tecnología y Arte Digital
Area:	Digital Creation Techniques
Year:	2º
Teaching period:	1
Type:	OB
ECTS credits:	3
Teaching modality:	On campus
Language:	English
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SUBJECT DESCRIPTION

Area description

This subject provides the student with the knowledge of the procedures, techniques and digital artistic tools for the creation of characters and digital environments, using modeling techniques for three-dimensional representation in virtual environments and texturing and shading for the simulation of the representation of textures and materials of the digital object or character in the field of animation. In the subject of digital creation techniques the student also acquires the knowledge and skills necessary to create narrative content, applying the principles of audiovisual language to an environment of cameras and 3D elements, as well as their lighting and digital composition.

Subject description

The course aims to provide the student with a global vision of the production process of a 3D Animation film, from the creation of the idea and the script, through all the animation processes until the film is finally shown on the cinema screen. The contents of the course will clarify the basic concepts of each of the phases of the production of a 3D animated feature film and the application of these contents in real practical cases.

COMPETENCIES AND LEARNING OUTCOMES

Competencies

BASIC AND GENERAL

CG11 - Know the legal framework of the professions associated with the degree.

GC3 - Participate in the management of projects linked to the design and development processes of a digital product.

GC7 - Knowing the employability resources of the professions associated with the degree.

CG8 - Optimize the work according to the technological resources related to the processes and tools of the project to be developed.

CG9 - Use the techniques and artistic tools associated with the generation of digital content.

CB1 - That students have demonstrated to possess and understand knowledge in an area of study that starts from the basis of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study.

CB2 - That students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the development and defense of arguments and problem solving within their field of study.

CB3 - That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.

CB4 - That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.

CB5 - That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

TRANSVERSALS

CT1 - To know the definition and scope, as well as to put into practice the fundamentals of the methodologies of management of technological development projects.

CT2 - To know the main agents of the sector and the complete life cycle of a project in development and commercialization of digital content.

CT4 - Update the knowledge acquired in the use of digital tools and technologies according to the current state of the sector and the technologies used.

CT5 - Demonstrate versatility, flexibility and creativity in the development of projects, activities and works.

SPECIFIC

CE17 - Use texturing techniques to apply materials to 3D models.

SC4 - Represent three-dimensional forms and spaces using the essential techniques of traditional and digital modeling.

CE7 - Create audiovisual pieces applying the principles of composition, audiovisual narrative and graphics animation to the realization, planning, editing and post-production of sequences and shots.

CE9 - Use modeling techniques for the three-dimensional representation of shapes from a design.

CE11 - Use the theory, techniques and tools associated with lighting, rendering and compositing

Learning outcomes

At the end of the degree, the graduate will be able to:

- Identify the impact of new digital media in today's society.
- Handle with ease digital tools for the creation of images, videos, modeling and artistic works.
- Use various techniques of artistic expression such as drawing, 3D modeling and postproduction for the generation of digital content.
- Model objects or figures with different techniques, whether digital or traditional.
- Represent objects and spaces in 3D through modeling, texturing, lighting and digital rendering.
- Apply the basic techniques of digital modeling to the creation of objects, figures and 3D environments with clean and optimized modeling meshes.
- Manage the interaction between different materials and lighting systems in 3D and 2D creative environments.
- Create environments with a high degree of verisimilitude through the use of layers, alphas and other basic digital compositing techniques.
- Identify software and hardware requirements for lighting, rendering and compositing.
- Apply the required textures and shaders convincingly and according to the needs of the production to the various parts of a 3D animation scene such as sets, objects or characters.
- Apply the fundamentals of visual language to the digital environment.
- Adapt the anthropometric and proportion rules used in other arts such as architecture or painting for the recreation of a virtual landscape.

CONTENTS

- Introduction to the industry of animation: main players and business models.
- Production pipeline for the creation of animated contents.
- Professional profiles in an animation studio.
- Planning and tracking of the production.
- Formats and commercial targets.
- Introduction to animation projects development and financing.

SUBJECT SYLLABUS

Topic 1. Introduction to Intellectual Property

Concept of author

Types of work

Original work and derivative work

Moral rights and exploitation rights

The protection of the work: European vs. Anglo-Saxon tradition

Copyright and other types of licences

Theme 2. Production processes

The production process in 3D animation

The production process in 2D animation

The VFX production process

Post-production processes: lab, sound and mixes

Theme 3. Structure of an animation studio

The producer and director

The production team

Departments: structure and composition

Theme 4. Production control and planning

Script breakdown

Budgets

Production plan

Production monitoring and control

Communication within the studio

Additional content

Leadership and management of creative teams

Introduction to production monitoring methodologies

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
<i>Theoretical / Expository classes</i>	12,00	12,00
<i>Practical classes</i>	15,00	15,00

<i>Tutorials</i>	2,60	1,30
<i>Independent study and autonomous work of the student</i>	19,00	0,00
<i>Elaboration of work (group or individual)</i>	24,00	0,00
<i>Evaluation Activities</i>	2,40	2,00
TOTAL	75	30,3

Teaching methodologies

Expository method or master class

Case method

Problem-based learning

Cooperative or collaborative learning

Inquiry-based learning

Flipped classroom or inverted classroom methodology

Gamification

TEMPORAL DEVELOPMENT

Theme 1-2 weeks

Theme 2-4 weeks

Theme 3-1 weeks

Theme 4-3 weeks

Topic 5-3 weeks

EVALUATION SYSTEM

ASSESSMENT SYSTEM	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
<i>Assessment of participation in class, exercises or projects of the course</i>	10	20

<i>Assessment of assignments, projects, reports, memos</i>	20	60
<i>Objective test</i>	30	70

GRADING CRITERIA

ASSESSMENT SYSTEM	ORDINARY EVALUATION	EXTRAORDINARY EVALUATION
<i>Assessment of participation in class, exercises or projects of the course</i>	20	20
<i>Assessment of assignments, projects, reports, memos</i>	40	40
<i>Objective test</i>	40	40

General comments on the evaluations/assessments

In order to pass the course, the following conditions are essential:

- The average mark must be 4.5 between SE2 and SE3.
- Attendance must not fall below 80%.
- The 3 partial activities must be handed in and at least 2 must be passed.
- The final activity must be completed and passed, without exception.

If attendance is less than 80%, you will not be able to attend the final exam, and you will have to take it in an extraordinary exam.

Each activity will have a series of instructions, criteria and conditions. This information will be provided in each of the activities.

In the ordinary exam there will be two opportunities to pass the three partial activities. In the second one it will only be possible to raise 7 points with respect to the grade obtained in the first opportunity.

Students who have not handed in the three partial activities and passed two of them, will have to go to the extraordinary exam, where they will have a third opportunity, in which it will only be possible to raise 5 points with respect to the grade obtained in the first opportunity.

The minimum marks that can be obtained in a submitted activity is 1. The 0 is reserved for not submitted and cases of plagiarism.

The final activity consists of two parts, one to be done prior to the test in the weeks before the test, and one to be done at the test. Both parts will be assessed at the same time and will be considered as a whole.

For the final activity there are only two opportunities, the ordinary and the extraordinary one. In the extraordinary opportunity there is no grade restriction. However, the student must assume that the nature of the on-site test will change with respect to the ordinary one, so that it will not be predictable.

Submission of partial activities will have a fixed deadline, namely the last Wednesday of October, November and December, at 23:59.

It is only possible to exceed the deadline by 10 minutes. Beyond that time the work will be considered as not handed in and graded as a 0.

Any detection of plagiarism, copying or the use of bad practices (such as the use of IAS) in a paper or exam will result in the failure of that paper with a zero, the report to the faculty and academic coordinator and the application of the current regulations, which can lead to very serious penalties for the student.

To be eligible for an honours degree you must have passed everything and have an average mark of over nine. It is only possible to award two matriculation awards between students in two groups. Those candidates with the two highest marks will receive the honours degree in modelling.

LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Basic:

Winder, Catherine. Producing Animation, 2nd edition. Focal Press. (Oxford, 2011).

Bibliografía recomendada:

Catmull, Ed, Creativity, Inc.: Overcoming the Unseen Forces That Stand in the Way of True Inspiration, Random House (New York, 2014)

Eisner, Michael, Schwartz, Tony Work in Progress: Risking Failure, Surviving Success, Hyperion Books, (New York, 1999)

Masters, Kim, The keys to the kingdom Harper Paperworks, (New York, 2001) Stewart, James R., Disneywar Simon & Schuster (New York, 2006)

Epstein, Edward Jay, The Hollywood economist. The Hidden Financial Reality Behind the Movies, Melville House, (New York, 2010)

Dunlop, Renee, Production Pipeline Fundamentals for Film and Games, Focal Press (London, 2014)

Thomas, Bob, Building a company, Roy O. Disney and the Creation of an Entertainment Empires. Disney Editions, (New York, 1998)

Thomas, Bob, Walt Disney, an American original Disney Editions, (New York, 1994)

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom

Theory

Materials:

Display - Digital whiteboard, Laptop

Software:

Excel, Word, Power Point, Microsoft Project, Shotgrid