



## **ACADEMIC PROGRAM**

### **2D COMPOSITING AND EFFECTS**

### **B.F.A. IN ANIMATION**

***MODALITY: ON CAMPUS***

***ACADEMIC YEAR: 2023-2024***

<b>Name of the course:</b>	<b>2D Compositing and Effects</b>
Degree :	Animation
Location:	Centro Universitario de Tecnología y Arte Digital
Area:	2D Animation
Year:	4º
Teaching period:	1
Type:	OBM
ECTS credits:	6
Teaching modality:	On campus
Language:	English
Lecturer / Email	Pablo Alonso Lasagabaster/pablo.lasagabaster@u-tad.com
Web page:	<a href="http://www.u-tad.com/">http://www.u-tad.com/</a>

## SUBJECT DESCRIPTION

### Area description

Students taking the Mention in 2D Animation must take this course. This subject, as part of the mention in 2D Animation focuses on the development of the 2D animation technique, from 2D layout, 2D animation, clean up or ink and paint and 2D composition, as a complement to the common training in 2D techniques of the degree in its compulsory contents. In this way, students will be able to acquire a certain intensification of their knowledge at the undergraduate level in a technique in which an intensive use of drawing is required for the creation of content, either by means of digital or traditional tools.

### Subject description

The course focuses on layer compositing and effects simulation for 2D animation productions, with particular emphasis on 2D animation effects creation, morphing, 2D particle effects, 2D element integration, color correction and color grading, and 2D camera movements and camera tracking.

## COMPETENCIES AND LEARNING OUTCOMES

### Competencies

BASIC AND GENERAL

CG4 - Apply the aesthetic and perception fundamentals of the image in terms of structure, form, color and space in the representation of digital content.

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

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

competencies that are usually demonstrated through the elaboration and defense of arguments and problem solving within their area 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 - Students should be able to convey 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

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

CE16 - Know the concepts and apply the tools and techniques that allow the introduction of visual effects in an audiovisual project.

SC5 - Apply the traditional principles of animation to the digital animation of characters and other elements.

SC1 - Execute drawing with traditional and digital techniques of artistic creation both for the ideation and for the representation of images.

CE2 - Know and apply the basics of photography, its elements of visual composition and the expressive value of lighting.

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.

SC8 - Apply technical drawing to the representation of pieces or spaces.

CE10 - Create images with a high level of finish using the most appropriate tools for the project of which it is a part.

SC11 - Use the theory, techniques and tools associated with lighting, rendering and composition.

## SPECIFIC TO THE MENTION

CE2D1: Reflect the character of the characters through 2D animation of their expressions, movement and characteristic poses.

CE2D2: Integrate backgrounds and 2D animated characters in a plane using 2D composition and layout techniques.

CE2D3: Apply digital Ink & Paint techniques to the creation of 2D animated characters and backgrounds.

### Learning outcomes

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

- Use the visual language of the different animation techniques to transmit ideas.
- Represent the physical environment, natural figures and objects through drawing with traditional or digital techniques.
- Apply the laws of representation systems for the visualization of objects, figures and spaces.
- Know the physical principles that govern colors for their dramatic and narrative use.
- To use light as a narrative and dramatic element in the creation of photographic images with knowledge of its physical principles.
- Master the basic laws of animation in both traditional and digital environments.
- Recreate fluid movements to generate believable animations in characters and objects.
- Represent in a two-dimensional plane a three-dimensional space or object according to the representation systems.
- Manage the interaction between different materials and lighting systems in 3D and 2D creative environments.
- Program elements in a 2D or 3D scene for the simulation of visual effects and the technical optimization of scenes.
- Plan character expression studies for a 2D animation production.
- Apply the key poses and basic physics necessary in the animation of a 2D animated character.
- Design the acting of the characters with attention to pantomime codes, non-verbal language, subtext analysis, dialogues and interaction between characters.
- Manage the interdependencies between rough animation, tie down, clean-up and intercut phases in 2D animation projects.
- Convincingly integrate particles and atmospheric effects created by 2D designs or drawings into the post-production stages of 2D animation.
- Color-correct and match the hues of different layers of a 2D animation composition.
- Use 2D camera control techniques to support a 2D animation production.
- Apply atmospheric perspective techniques in the construction of 2D animation environments and backgrounds.

- Determine the shading of the elements that make up a 2D animation scene.
- Generate lighting effects through digital painting techniques applied to 2D characters and backgrounds.
- Plan the coloring process of key frames of a scene.
- Develop strategies for continuous and autonomous training in new techniques and tools of the animator's profession.

## **CONTENTS**

- Creation of 2D Animation effects
- Morphing
- 2D particle effects
- Integration of elements in 2D
- Colour correction and grading
- 2D camera movements and camera tracking

## **SUBJECT SYLLABUS**

- 1.Theory of 2D effects animation
  - 1.1.Organic animation. FX in nature.
  - 1.2. VF animation, design and interpretation.
  - 1.3. FX development and concept.
- 2.Animations
  - 2.1. Water
    - 2.1.1. Design and concept.
    - 2.1.2 Organic animation
  - 2.2. Fire
    - 2.2.1. Animation and design
3. 2D Composition
  - 3.1. Integration of 2D animation in real environments
  - 3.2. Multiplane camera
  - 3.3. Particles

## **TRAINING ACTIVITIES AND TEACHING METHODOLOGIES**

## TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
<i>Theoretical / Expository classes</i>	22,00	22,00
<i>Practical classes</i>	33,75	33,75
<i>Tutorials</i>	4,25	2,13
<i>Independent study and autonomous work of the student</i>	35,00	0,00
<i>Elaboration of work (group or individual)</i>	50,75	0,00
<i>Evaluation Activities</i>	4,25	4,00
<b>TOTAL</b>	150	61,88

## 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 semanas

Theme 2-5 semanas

Theme 3- 7 semanas

## EVALUATION SYSTEM

ASSESSMENT SYSTEM	MINIMUM SCORE RESPECT TO THE	MAXIMUM SCORE RESPECT
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	<b>FINAL ASSESSMENT (%)</b>	<b>TO THE FINAL ASSESSMENT (%)</b>
<i>Assessment of participation in class, exercises or projects of the course</i>	10	20
<i>Assessment of assignments, projects, reports, memos</i>	30	60
<i>Objective test</i>	30	60

## GRADING CRITERIA

<b>ASSESSMENT SYSTEM</b>	<b>ORDINARY EVALUATION</b>	<b>EXTRAORDINARY EVALUATION</b>
<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

Students must get at least a 5 in both the evaluation of the work and the objective test in order to pass the course.

Any detection of plagiarism in a paper or exam will imply 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.

## LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Basic:

WHITE, Tony (2012): Tony White's Animator's Notebook: Personal Observations on the Principles of Movement. CRC Press.

WILLIAMS, Richard (2001): The Animator's Survival Kit. Faber and Faber.

Bibliografía recomendada

BLAIR, Preston (1994): Cartoon Animation. Walter Forster.

GARCÍA, Raúl (2000): La magia del dibujo animado: Actores de lápiz. Ediciones de Ponent.

JOHNSTON, Ollie & Thomas, Frank (1997): The Illusion of Life. Hyperion.

Luhta, Eric (2013): How to cheat in Maya 2013. Focal Press.

WHITE, Tony (2012): Animation from Pencils to Pixels: Classical Techniques for the Digital Animator. Taylor & Francis.

## **REQUIRED MATERIALS, SOFTWARE AND TOOLS**

### **Type of classroom**

Cintiq

### **Materials:**

Display - Digital whiteboard, Laptop

### **Software:**

Toon Boom Harmony, Adobe After Effects