

## Course guide

### 804238 - A2D - 2D Animation

**Last modified:** 20/07/2025

<b>Unit in charge:</b>	Image Processing and Multimedia Technology Centre	
<b>Teaching unit:</b>	804 - CITM - Image Processing and Multimedia Technology Centre.	
<b>Degree:</b>	BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Compulsory subject).	
<b>Academic year:</b> 2025	<b>ECTS Credits:</b> 6.0	<b>Languages:</b> Spanish, English

#### LECTURER

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<b>Coordinating lecturer:</b>	Nea Ehrlich
<b>Others:</b>	Nea Ehrlich Irene Ferrer

#### PRIOR SKILLS

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The 2D animation subject presents the introduction of the animation principles and the context of animation inside the film language. We will work the history of animation and the tools necessary to dominate the bases. This activities will conclude with the creation and animation of videogame characters.

#### TEACHING METHODOLOGY

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The subject will provide three theoretical resources to be able to execute a series of practices that summarize the general role that an animator has within a production. The first will be a cultural documentation on the world of animation, its history and its main figures, as well as weekly recommendations to enrich the global vision of the matter. Each practice also has a theoretical formula to face it easily and finally a practical example by the teacher during class. These practices will receive as much feedback as the student needs before the delivery date.

The total of practices and contents will be summarized in an exam that will work the main aspects worked during the subject.

#### LEARNING OBJECTIVES OF THE SUBJECT

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- To describe the basic concepts and procedures involved in the modeling, texture, lighting and 2D and 3D animation of objects, characters and environments for video games.
- To efficiently use computer programs, composition graphics and animation of objects and 2D and 3D characters.
- To apply computer animation techniques in 2D and 3D animation, implementing mathematical and physical foundations.
- To analyse movement in objects, humans and animals for recreation in 2D and 3D animation.
- To create objects, characters, textures, scenes, visual effects and 2D and 3D animations for inclusion in video game projects.
- To collaborate effectively and responsibly as a member or leader of a team, in interdisciplinary contexts or not, considering the available resources.
- To identify the processes of 2D animation.
- To use the traditional techniques and Cut-Out of 2D animation.



## STUDY LOAD

Type	Hours	Percentage
Hours medium group	32,0	21.33
Guided activities	10,0	6.67
Self study	90,0	60.00
Hours large group	18,0	12.00

**Total learning time:** 150 h

## CONTENTS

### COURSE INTRODUCTION

**Description:**

Course presentation, personal and 2D animation history and concept introduction.

**Specific objectives:**

Teacher introduction along with his job and course general information.

**Full-or-part-time:** 7h 30m

Theory classes: 2h 30m

Self study : 5h

### INTRODUCTION TO ANIMATION

**Description:**

- Animation principles
- Animator's job, tools and techniques
- Production pipeline

**Full-or-part-time:** 50h

Theory classes: 20h

Self study : 30h

### INTRODUCTION TO SCREENWRITING AND STORYBOARD FOR ANIMATION

**Description:**

- Adventure screenwriting structure for animation.
- Composition and camera movement in Toonboom.
- Storyboard in Toonboom.

**Full-or-part-time:** 7h 30m

Theory classes: 2h 30m

Self study : 5h



### ANIMATION BIBLE CREATION

**Description:**

Concepts for animation bible creation.

**Full-or-part-time:** 10h

Theory classes: 5h

Self study : 5h

### CHARACTER DESIGN AND RIGGING

**Description:**

Drawing, color and rigging concepts for character creation in Toonboom.

**Full-or-part-time:** 25h

Theory classes: 10h

Self study : 15h

### VIDEOGAMES CHARACTER ANIMATION

**Description:**

Advanced character animation for videogames.

**Full-or-part-time:** 50h

Theory classes: 20h

Self study : 30h

## ACTIVITIES

### EASY BALL

**Description:**

Animation of ball moving from one side to the other of the frame, learning the concept of easy in and easy out.

1- 25 drawings of a ball moving from frame 1 to 25 with the same timing.

2- 21 drawings of a ball moving from frame 1 to 25 with an easy out and easy in.

**Full-or-part-time:** 1h

Guided activities: 1h

### BOUNCING BALL SOLID

**Description:**

Traditional animation of a solid ball bouncing in Y until it stops.

**Full-or-part-time:** 1h

Guided activities: 1h



### BOUNCING BALL SOFT

**Description:**

Traditional animation of a soft ball bouncing in X until it stops. It's necessary to apply the concepts of easy in and easy out and squash and stretch.

**Full-or-part-time:** 2h

Guided activities: 2h

### BOUNCING BALL OBSTACLE

**Description:**

Cut-Out animation of a ball bouncing from a high position until it stops at the bottom through a number of simple obstacles.

**Full-or-part-time:** 2h

Guided activities: 2h

### POSE TO POSE FACE

**Description:**

Tradicional animation of a simple face looking from one side to the other. It's necessary to apply the easy in and easy out, squash and stretch, timing, breakdown and inbetween concepts.

**Full-or-part-time:** 2h

Guided activities: 2h

### POSE TO POSE BODY

**Description:**

Mixed animation of a body changing his weight from on leg to the other applying the concepts from the last pose to pose exercise.

**Full-or-part-time:** 3h

Guided activities: 3h

### JUMP

**Description:**

Traditional animatin of a character jumping in X applying the pose to pose technique.

**Full-or-part-time:** 3h

Guided activities: 3h

### WALKING CYCLE

**Description:**

Traditional animation of a character walking as a Richard Williams cycle.

**Full-or-part-time:** 3h

Guided activities: 3h

### PROJECT BIBLE

**Description:**

Bible creation in groups.

- 1- Cover
- 2- Index
- 3- Sinopsis
- 4- Screenplay structure
- 5- Moodboard
- 6- Character design
- 7- BG design
- 8- Storyboard for one scene
- 9- Simple animation of the scene

**Full-or-part-time:** 12h

Guided activities: 12h

### CHARACTER CREATION

**Description:**

Design and rigging for a Toonboom character

**Full-or-part-time:** 6h

Guided activities: 6h

### CHARACTER ANIMATION IDLE

**Description:**

Cut-Out animation of a videogame IDLE

**Full-or-part-time:** 3h

Guided activities: 3h

### CHARACTER ANIMATION WALKING

**Description:**

Cut-Out animation of a walking videogame character

**Full-or-part-time:** 3h

Guided activities: 3h

### CHARACTER ANIMATION STRIKE

**Description:**

Cut-Out animation of a videogame character stricke

**Full-or-part-time:** 3h

Guided activities: 3h



## CHARACTER ANIMATION FINAL

### Description:

Cut-Out animation of a videogame character linking animations.

**Full-or-part-time:** 4h

Guided activities: 4h

## GRADING SYSTEM

- Weekly activities 45%
- Partial 15%
- Animation test 30%
- Attitude 10%

Students who fail will have the chance to take the reevaluation exam. The mark of this exam will replace the mark of the partial and final exams and, in case of passing the course, the maximum final mark will be 5.

Irregular actions that may lead to a significant variation of the grade of one or more students constitute a fraudulent performance of an evaluation act. This action entails the descriptive grade of failure and a numerical grade of 0 for the ordinary global evaluation of the course, without the right to re-evaluation.

If the lecturers have indications of the use of AI tools not allowed in the evaluation tests, they may summon the students concerned to an oral test or a meeting to verify the authorship.

## BIBLIOGRAPHY

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