

## 804238 - A2D - 2D Animation

Coordinating unit: 804 - CITM - Image Processing and Multimedia Technology Centre  
 Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre  
 Academic year: 2018  
 Degree: BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Teaching unit Compulsory)  
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 ECTS credits: 6 Teaching languages: Spanish

### Learning objectives of the subject

### Study load

Total learning time: 150h	Hours large group:	18h	12.00%
	Hours medium group:	32h	21.33%
	Hours small group:	0h	0.00%
	Guided activities:	10h	6.67%
	Self study:	90h	60.00%



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### Content

title english	Learning time: 2h Theory classes: 2h
Description: content english	
title english	Learning time: 10h Theory classes: 10h
Description: content english	

## 804238 - A2D - 2D Animation

<p>title english</p>	<p>Learning time: 10h Theory classes: 10h</p>
<p>Description:</p> <p>SESSION 1</p> <ul style="list-style-type: none"> <li>- Explanation of the course and final assignment</li> <li>- Foundations of Pixel Art. What is (and what isn't). Styles and trends</li> <li>- Size and scale</li> <li>- Do's and Don'ts</li> <li>- Looking for resources and inspiration</li> <li>- Photoshop set up, tools and commands</li> <li>- Color palettes</li> <li>- Animating in Photoshop</li> </ul> <p>SESSION 2</p> <ul style="list-style-type: none"> <li>- Use and reuse</li> <li>- HSB and Contrast</li> <li>- Lines, curves and shapes</li> <li>- Dithering</li> <li>- Anti-aliasing</li> <li>- Lightning</li> </ul> <p>SESSION 3</p> <ul style="list-style-type: none"> <li>- Types of pixel art animation</li> <li>- Economy of frames</li> <li>- Principles of animation applied to pixel art</li> <li>- Spritesheets</li> </ul> <p>SESSION 4</p> <ul style="list-style-type: none"> <li>- Backgrounds in pixel art</li> <li>- Debris objects</li> <li>- Top-down / Isometric perspective</li> <li>- Tilesets</li> <li>- Particle simulation</li> <li>- 2.5D effects and dynamic lightning</li> </ul> <p>Related activities:</p>	

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### PRACTICAL EXERCISE (SESSION 1)

Static character design for your RTS/RPG depending on your degree project (PNG)

Character animation: idle (animated GIF)

### PRACTICAL EXERCISE (SESSION 2)

Character animation: hurt, death (animated GIF)

### PRACTICAL EXERCISE (SESSION 3)

Character animation: walking cycle, attack (animated GIF).

### PRACTICAL EXERCISE (SESSION 4)

Static tilesets design to build background and debris objects (PNG)

Character animation including particle effects: respawn (animated GIF)

Specific objectives:

#### PREPARATION OF THE SUBJECT

Basic knowledge of Photoshop basic tools and functionality is needed since it will be the software used during the course. A Wacom tablet per student will be provided as well.

#### TEACHING METHODOLOGY

Sessions will have the following pattern:

- 45' theory
- 15' analysis of samples and inspiration
- 60' practice, where the instructor will work in parallel and also do Q&A

All practice exercises from sessions will be part of the final project. Some extra time outside the class will be needed in order to improve graphics and animations, therefore have a better final result of the assignment.

#### AVALUATION SYSTEM

The final project consists of:

- 1 Character spritesheet Personaje: (idle, walking cycle in 4 directions, attack, hurt, death, respawn)
- 1 Background spritesheet: 4 tilesets, 4 debris object (2 animated)
- 1 animated GIF with the character moving around and showing all different actions

Practice exercises during sessions will be part of the overall evaluation along with the final assignment.

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title english	Learning time: 4h Theory classes: 4h
Description: content english	
title english	Learning time: 12h Theory classes: 12h
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Description: content english	
title english	Learning time: 12h Theory classes: 12h
Description: content english	

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### Bibliography

#### Basic:

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