

## COURSE DESCRIPTION

### 1. GENERAL

<b>SCHOOL</b>	MUSIC AND AUDIOVISUAL ARTS		
<b>DEPARTMENT</b>	AUDIO AND VISUAL ARTS		
<b>LEVEL</b>	Undergraduate		
<b>COURSE CODE</b>	VIS630	<b>SEMESTER</b>	6 <sup>th</sup>
<b>COURSE TITLE</b>	Computer Graphics		
<b>INDEPENDENT TEACHING ACTIVITIES</b>	<b>WEEKLY TEACHING HOURS</b>	<b>ECTS</b>	
Lab Lecture	2	4	
<b>COURSE CATEGORY</b>	Specific Background		
<b>COURSE TYPE</b>	Elective		
<b>PREREQUISITES</b>	VIS333		
<b>LANGUAGE OF TEACHING and EXAMINATIONS</b>	Greek		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	YES (In English)		
<b>URL</b>	<a href="https://avarts.ionio.gr/en/studies/undergraduate/courses-descriptions/vis630/">https://avarts.ionio.gr/en/studies/undergraduate/courses-descriptions/vis630/</a>		
<b>ECLASS</b>			

### 2. TEACHING RESULTS

<b>Teaching Results</b>
The course aims to introduce students in basic concepts of three-dimensional graphics.
After the end of the course students will be able to create photorealistic three-dimensional environments.
<b>General Skills</b>
<ul style="list-style-type: none"> <li>• Seek, analyze and synthesize data</li> <li>• Autonomous work</li> <li>• Team work</li> <li>• Project design and management</li> <li>• Freedom of thought</li> </ul>

### 3. CONTENT

<p>This course aims at presenting the terminology, functionality and the major applications of 3d computer graphics for the Arts. The practical exercises in the field of 3d graphics through the use of methods and tools allow the students to appreciate the potentialities and limitations of 3d graphics. This is achieved through the use of examples and applications, which are directly related to their artistic domain of interest.</p> <p>1st Week. Introduction to 3ds max. Basic concepts. Navigating in the 3D world.</p> <p>2nd Week. Modeling. Modeling techniques based on primitive shapes.</p> <p>3rd Week. Modeling with polygons.</p> <p>4th Week. Materials. Basic concepts.</p> <p>5th Week. Textures. Texture mapping techniques.</p> <p>6th Week. Progress.</p> <p>7th Week. Lighting. Types of lights in 3d programmes.</p>
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8th Week. Lighting. **Illustrating a scene with various lighting techniques.**

9th Week. 3d **Rendering. Various types of rendering the final image.**

10th Week. Progress.

11th Week. **Camera motion. Techniques and tools.**

12th Week. Photorealistic image rendering.

13th Week. Repetitions.

#### 4. TEACHING AND LEARNING METHODS - EVALUATION

<b>TEACHING METHOD</b>	Lectures										
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</b>	Enhanced by multimedia content. The learning process is supported by the asynchronous e-learning platform e-class.										
<b>TEACHING STRUCTURE</b>	<table> <tr> <td>Activity</td> <td>Semester Workload</td> </tr> <tr> <td>Lab Lectures</td> <td>26</td> </tr> <tr> <td>Literature Study and Analysis</td> <td>48</td> </tr> <tr> <td>Practice and Preparation</td> <td>26</td> </tr> <tr> <td><b>Course Total (ECTS: 4)</b></td> <td><b>100</b></td> </tr> </table>	Activity	Semester Workload	Lab Lectures	26	Literature Study and Analysis	48	Practice and Preparation	26	<b>Course Total (ECTS: 4)</b>	<b>100</b>
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<b>Course Total (ECTS: 4)</b>	<b>100</b>										
<b>EVALUATION OF STUDENTS</b>	Progress and assessment of the course is implemented by delivering artistic work during the semester and is completed with a total delivery of completed works at the end of the semester.										

#### 5. BIBLIOGRAPHY

Autodesk 3ds Max 2014 Bible, Kelly L. Murdock, John Wiley & Sons, 2013