# Advanced graphics in advertising - course description

## General information

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Course name	Advanced graphics in advertising
Course ID	04.2-WE-BizEIP-ZaawMetGrafwRekl-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	E-business
Education profile	practical
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2019/2020

### Course information

Semester	2
ECTS credits to win	5
Course type	obligatory
Teaching language	english
Author of syllabus •	dr inż. Andrzej Czajkowski

#### **Classes** forms

The class form	Hours per semester (full-time)	Hours per week (full-time	) Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	30	2	-	-	Credit with grade
Laboratory	30	2	-	-	Credit with grade

### Aim of the course

- Familiarize students with different approaches to create 3D computer graphics.
- Introduce modern CGI environments.
- Introduce the concepts of 3D modelling, texturing and animation.
- Introduce the modern approaches to advertisement creation process such as virtual or augmented reality.

### Prerequisites

Digital advertising

### Scope

- Concepts of 3D graphics vertex, edge and polygon
- Hard Surface and organic modelling.
- Key framing and interpolation in 3D animation, hierarchy with inheritance in animation.
- Rendering process optimisation and methods
- Tools supports of 3D applications developing and programming.
- Techniques to create virtual worlds with focus on in-game advertising.
- Scripting in 3D environments systems.
- Bridging the real and virtual world to achieve augmented reality.

### **Teaching methods**

laboratory classes, lecture

### Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Student knows different approaches to create CGI		• a final test	<ul> <li>Lecture</li> </ul>
		<ul> <li>an observation and evaluation of activities</li> </ul>	<ul> <li>Laboratory</li> </ul>
		during the classes	
		<ul> <li>carrying out laboratory reports</li> </ul>	
Student can create short animation using key framing and different		• a final test	• Lecture
interpolation methods		• an observation and evaluation of activities	<ul> <li>Laboratory</li> </ul>
		during the classes	
		<ul> <li>carrying out laboratory reports</li> </ul>	

Outcome description	Outcomesymbols Methods of verification	The class form
Student is able to use different modelling techniques to achieve desirable effect	e • a final test • an observation and evaluation of activities during the classes	<ul><li>Lecture</li><li>Laboratory</li></ul>
Can use advanced features of programming and developing tools for creation of a advertisement application with 3D graphics	carrying out laboratory reports     carrying out laboratory reports	• Laboratory
Can prepare a sample or prototype of mobile advertisement application in augmented or virtual reality	<ul> <li>an observation and evaluation of activities during the classes</li> <li>carrying out laboratory reports</li> </ul>	<ul> <li>Laboratory</li> </ul>

### Assignment conditions

Lecture - the passing criterion is a sufficient mark from the final test. Laboratory - the passing criterion are positive marks for laboratory exercises. Final mark components = lecture: 50% + laboratory: 50%

### **Recommended reading**

- 1. D. Ogilvy, Ogilvy on Advertising, Vintage, 1st Vintage Books ed edition, 1985
- 2. D. Derakhshani, R. L. Derakhshani, Autodesk 3ds Max 2016 Essentials. Sybex, 2015
- 3. M. Pricken, Creative Advertising: Ideas and Techniques from the World's Best Campaigns, Thames & Hudson, 2008
- 4. A. B. Craig, Understanding Augmented Reality: Concepts and Applications, Morgan Kaufmann, 2013

### Further reading

- 1. M. McCarthy, How to Cheat in 3ds Max 2015: Get Spectacular Results Fast, Focal Press, 2014
- 2. Adams E.: Fundamentals of Game Design, 3rd edition, New Riders, 2013
- 3. S.J. Gortler, Foundations of 3D Computer Graphics, MIT Press, 2012

### Notes

Modified by dr inż. Andrzej Czajkowski (last modification: 12-12-2019 10:13)

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