

Digital video - course description

General information	
Course name	Digital video
Course ID	15.2-WE-INFP-DV-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	Computer Science
Education profile	academic
Level of studies	Erasmus programme
Beginning semester	winter term 2017/2018

Course information	
Semester	6
ECTS credits to win	4
Course type	optional
Teaching language	english
Author of syllabus	<ul style="list-style-type: none">dr inż. Łukasz Hładowski

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	-	-	Exam
Laboratory	30	2	-	-	Credit with grade
Project	15	1	-	-	Credit with grade

Aim of the course

- giving students the knowledge of the digital video taking into account current technologies and requirements of the electronic media industry
- teaching basic skills in preparation to work as a media engineer

Prerequisites

Principles of computer science, Computer graphics

Scope

Introduction to digital media. The basics of (digital) video and cinematography. Human perception of time based media. Installation and configuration of video processing tools. Colour coding and correction. Principles of colour management.

Introduction to multimedia devices and digital cinematography. Multimedia devices. Capturing and formats of digital video. Methods of synthesis, analysis and digital video editing. Linear and non-linear video editing.

Practical applications. Working with lighting. Practical application of the greenscreen for background removal. Mixing motion and still pictures.

Digital audio. Formats of digital audio. Capture of audio. Linear and non-linear audio editing.

Streamed media. Streamed media formats, distribution channels for video and audio streams. Podcasting.

Digital movies production. Preparations, narrative, script, take design, filming, image processing and post-production. Post-synchronization. Digital video distribution.

Teaching methods

lecture: discussion, working in groups, project method

laboratory: working in groups, laboratory excercises

project: working in groups, project method

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Is aware of the dynamic development of the discipline.		<ul style="list-style-type: none">an examination test with score scale	<ul style="list-style-type: none">Lecture
Is open to new technologies and is ready to implement them		<ul style="list-style-type: none">a discussiona quiz	<ul style="list-style-type: none">LectureLaboratoryProject
Can carry out computer hardware and software configuration process and analyse and verify current application configuration		<ul style="list-style-type: none">a discussiona projecta quiz	<ul style="list-style-type: none">LaboratoryProject

Outcome description	Outcome symbols	Methods of verification	The class form
Can apply and analyze digital video systems, and explain technical requirements		<ul style="list-style-type: none"> • a discussion • a project • a quiz 	<ul style="list-style-type: none"> • Laboratory • Project
Student can name digital video editing principles and environments.		<ul style="list-style-type: none"> • a check work • a discussion • a quiz • an examination test with score scale 	<ul style="list-style-type: none"> • Lecture • Laboratory • Project

Assignment conditions

Lecture - a credit is given for obtaining a passing grade for all oral or written exams administered at least once per semester

Laboratory - to receive a final passing grade student has to receive passing grades for all tasks required by the curriculum.

Project - to receive a final passing grade student has to receive passing grades for all tasks and projects required by the curriculum..

Calculation of the final grade = lecture: 30% + laboratory: 30% + project: 40%

Recommended reading

1. Ascher S., Pincus E.: The Filmmaker's Handbook, 2013 Edition. Plume 2013.
2. Murch W.: In the blink of an eye, a perspective on film editing, 2nd ed., Silman-James Press, 2005.

Further reading

1. Rankin K.: Linux multimedia hacks. Tips & tools for taming images, audio and video. O'Reilly Media, 2005,
2. Kirn P., Real World Digital Audio. *Peachpit Press*, 2006,
3. Thompson, D.M.: Understanding Audio: Getting the Most Out of Your Project or Professional Recording Studio. Hal Leonard Corporation, 2005,
4. Fraser B., Murphy C.: Real World Color Management. 2nd ed., Peachpit Press, 2004.

Notes

Modified by dr inż. Łukasz Hładowski (last modification: 04-04-2018 19:07)

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