

Subject card

Subject name and code	Multimedia, PG_00157402						
Field of study	Information Science and Econometrics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	postgraduate studies		Subject group		Optional subject group Subject group related to scientific research in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		English		
Semester of study	4		ECTS credits		5.0		
Learning profile	academic		Assessment form				
Conducting unit	Katedra Informatyki Ekonomicznej -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr inż. Dawid Jereczek				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	45		20.0		60.0	125
Subject objectives	Introduction to the theoretical and practical aspects of creating and processing multimedia, with a particular focus on IT applications. Students will develop skills in designing interactive multimedia applications, processing audio and video, and will learn about tools and technologies used in modern multimedia production. The course is designed to enhance competencies in analyzing and implementing multimedia solutions, applicable in various fields of computer science, such as video games, e-learning, and user interfaces.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[liEMU2_U02] The student is able to proficiently acquire detailed information about economic processes and phenomena through direct observation, planned experimentation or database queries, as well as collect and process it using modern information technology tools.	The student is able to present data from any area of the enterprise in a clear and understandable multimedia form.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU6] demonstration of practical skills
	[liEMU2_U04] The student is able to plan, design, and program information systems at an advanced level, supporting the operation of business entities.	The student is able to independently prepare a multimedia file using available tools.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU6] demonstration of practical skills
	[liEMU2_K05] The student can think and act in an entrepreneurial manner and flexibly adapt to changing environmental conditions. Thinks creatively and can go beyond the usual patterns.	The student understands the importance of multimedia material in the functioning of the company. He is able to assess how multimedia affects the company's image, the effectiveness of marketing activities and the efficiency of management.	[SK1] oral statement/conversation/discussion [SK5] implementation of a problem task [SK6] demonstration of practical skills
	[liEMU2_W02] The student has an in-depth knowledge of economic structures and institutions, the processes taking place in them, the connections between them and their dynamics, and has an in-depth knowledge of the phenomena and processes taking place in their environment.	The student has knowledge of visual communication theory and interaction design principles, enabling them to effectively convey information and engage audiences. The student is familiar with presentation techniques and basic programming, allowing them to execute their own multimedia projects in various formats.	[SW1] oral statement/conversation/discussion
Subject contents	1. Multimedia Basics: Introduction to the concept of multimedia, types of media (text, image, sound, video) and their applications in various fields of computer science.2. Multimedia File Formats: Overview of popular file formats (e.g. JPEG, MP3, MP4) and their compression, along with a discussion of the advantages and limitations of each format.3. Multimedia Tools and Software: A practical introduction to tools for creating and editing multimedia.4. Computer Graphics: Basics of raster and vector graphics, 3D modeling and image and animation processing.5. Sound in Multimedia: Basics of acoustics, sound recording and editing techniques and integration of sound with other multimedia elements.6. Video in Multimedia: Video recording, editing and processing techniques, including creating special effects and animations.7. Multimedia in Marketing: Application of multimedia materials in advertising campaigns, social media and brand building.8. Application of multimedia in business: Analysis of multimedia use cases in various aspects of company activities, such as management, training, internal and external communications.		
Prerequisites and co-requisites	The student should have basic knowledge of multimedia technologies (image, sound and moving images) and be familiar with popular graphic and multimedia tools.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	final project	51.0%	50.0%
	own work during classes	51.0%	50.0%
Recommended reading	Basic literature	1. Domanski M. (2010), Obraz cyfrowy, WKiŁ, Warszawa 2. Russ J. (2007), The Image Processing Handbook, CRC Press 3. Chapman N., Chapman J. (2009), Digital Multimedia, Wiley	
	Supplementary literature	Watkinson J. (2004), The MPEG Handbook, Focal Press	
	eResources addresses	Adresy na platformie eNauczanie:	
	Example issues/ example questions/ tasks being completed		
Work placement	Not applicable		

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