

**IGNACY JAN PADEREWSKI ACADEMY OF MUSIC IN POZNAŃ**

<b>Course Name</b>	Live Electronics	<b>ECTS Credits</b>	5
<b>Course Coordinator</b>	dr Michał Janocha	<b>Credit Hours Total</b>	30
<b>Faculty of</b>	Composition, Conducting, Vocal Studies, Music Theory and Artistic Education	<b>Course Type</b>	Lecture/Applied Course
<b>Institute of</b>	Composition and Music Theory	<b>Mode of Study</b>	Full-Time Programme
<b>Major</b>	Composition and Music Theory	<b>Profile of Study</b>	General Academic
<b>Specialisation</b>	Electroacoustic Composition	<b>Language of Instruction</b>	English
<b>Cycle</b>	First-Cycle Studies	<b>Course Group</b>	Core

**COURSE PLACEMENT IN THE STUDY PLAN**

<b>Semester 1</b>		<b>Semester 2</b>	15 hours, Graded Test, 2 ECTS
<b>Semester 3</b>	15 hours, Exam, 3 ECTS	<b>Semester 4</b>	

<b>Instructor</b>	dr Michał Janocha
<b>Learning Aims and Objectives</b>	The aim of the course is to acquire the skills and techniques necessary to work with “live” electronic sound. Students will learn methods of creating sound in real time. Students will learn methods of programming and constructing synthesizers, samplers, and other complex tools and instruments.
<b>Prerequisites</b>	Course participants have computer skills.

**COURSE CONTENT**
**Semester 2**

- Basics of the Max/MSP environment
- Max/MSP – exercises
- Principles of synthesizer operation – exercises
- Principles of sampler operation – exercises
- Construction of tools for real-time sound creation and processing
- Creating your own tools and instruments – exercises

**Semester 3**

- Methods of working with recorded sound, methods of working with “live” sound
- Introduction to Sound Art – installations, sound sculptures, soundscape
- Methods of combining live sound with images and film
- Introduction to working with external MIDI and OSC controllers
- Exercises – creating your own sound devices and systems

	Learning Outcome Reference Code	LEARNING OUTCOMES	Descriptors	
			STAGE 2 OF PQF	STAGE 1 OF PQF
Knowledge	KTM1_W03	Student is aware of the complex and contextual nature of musical creativity and its historical variability.	P6S_WG	P6U_W
	KTM1_W04	Student has structured knowledge of musical works from a historical, stylistic, and systematic perspective, appropriate for the selected major.	P6S_WG	P6U_W
	KTM1_W05	Student knows basic music terminology.	P6S_WG	P6U_W
	KTM1_W06	Student demonstrates knowledge of basic creative methods, techniques, technologies, tools, and ways of organizing sound material necessary in the process of composing a musical work and its analysis and interpretation.	P6S_WG	P6U_W
Skills	KTM1_U06	Student has basic skills in evaluating musical works.	P6S_UW P6S_UK	
	KTM1_U12	Student is able to use modern technological tools needed in the process of music creation.	P6S_UW	
Competence	KTM1_K01	Student is ready to collect, analyse, and interpret necessary information.	P6S_KK	P6U_K
	KTM1_K02	Student implements their own artistic concepts and activities based on diverse styles, resulting from the use of knowledge and creative imagination.	P6S_KK	P6U_K
	KTM1_K10	Student effectively uses imagination, intuition, creativity, and independent thinking when faced with the need to solve problems.	P6S_KK	
	KTM1_K12	Student is capable of conducting self-assessment and has a sense of responsibility for their own health and safety and that of others.	P6S_KK	

**TEACHING METHODS**

lecture  
 solving artistic tasks, individual work  
 SWOT technique  
 problem-based learning (PBL)

**LEARNING OUTCOME VERIFICATION METHODS**

Final Requirements – Successfully completed year, grading criteria	Learning Outcome Reference Code
project, presentation	KTM1_W03, KTM1_W04, KTM1_U06, KTM1_K12
review of prepared projects	KTM1_W05, KTM1_K01, KTM1_K10
completion of the assigned task	KTM1_W06, KTM1_U12, KTM1_K02

**ASSESSMENT METHODS AND CRITERIA**

<b>Course Completion Requirements</b>	Proper completion of the assigned task
<b>Exam Requirements</b>	

<b>STUDENT WORKLOAD</b>	<b>Credit Hours Total</b>	<b>ECTS Credits</b>
<b>Contact hours with the instructor</b> <i>(classes, consultations)</i>	30	5
<b>Hours of independent student work</b> <i>(preparing for classes, graded test, exam, presentation, concert)</i>	10	

**Recommended Reading**

Włodzimierz Kotoński - *Muzyka elektroniczna*  
Mathews Max V. - *The Technology of Computer Music*  
Puckette Miller - *The Theory and Technique of Electronic Music*

**Supplementary Reading**

Ludwik Bielawski - *Strefowa teoria czasu*  
Monika Pasiecznik - *Acousmonium. Tożsamość głośnika ("Dwutygodnik")*

**Virtual Libraries and On-Line Resources** (optional)

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