

IGNACY JAN PADEREWSKI ACADEMY OF MUSIC IN POZNAŃ

Course Name	History of Computer Music	ECTS Credits	2
Course Coordinator	dr Dominik Puk	Credit Hours Total	30
Faculty of	Composition, Conducting, Vocal Studies, Music Theory and Artistic Education	Course Type	Lecture/Applied Course
Institute of	Composition and Music Theory	Mode of Study	Full-Time Programme
Major	Composition and Music Theory	Profile of Study	General Academic
Specialisation	Electroacoustic Composition, Music Journalism	Language of Instruction	English
Cycle	First-Cycle Studies	Course Group	Core

COURSE PLACEMENT IN THE STUDY PLAN

Semester 3	15 hours, Pass/Fail basis, 1 ECTS	Semester 4	15 hours, Pass/Fail basis, 1 ECTS
-------------------	-----------------------------------	-------------------	-----------------------------------

Instructor	dr Dominik Puk
Learning Aims and Objectives	The aim of the course is to learn about the history and traditions related to aspects of so-called "Computer Music." First and foremost, it is a history and overview of manifestations of generative (and algorithmic) thinking in the history of music. Next, it is learning about and implementing strategies for generating music using computer tools (including so-called CAC: Computer-Aided Composition) in exercises. Finally, it involves discussing and implementing in exercises issues related to the relationship between generative music (including spatial music and live electronics) and its notation in musical notation. After completing the course, students will be able to consciously use computer tools and generative methods, especially for their own creative work.
Prerequisites	Participation in classes in Computer Music 1 Computer skills and proficiency in sound editing software and music notation software Knowledge and skills in live electronics and sound editing Knowledge and skills in analysis and conscious listening

COURSE CONTENT

Semester 1
<ul style="list-style-type: none"> • Explanation of the meaning of the term "Computer Music" and discussion of its characteristics • Generativity and transformativity • Historical generative methods and tools • Contemporary generative methods and tools • Notation of generative factors within topophony and spatialization • Notation of generative factors in live electronics • Black Midi • Exercises
Semester 2
<ul style="list-style-type: none"> • Introduction to Computer Aided Composition • Sources of data and parameters for sonification • Methods of generation, analysis, and recording using the example of pitch organization • Exercises

	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 musical terminology.	P6S_WG	P6U_W
	KTM1_W06	Student demonstrates knowledge of basic creative methods, techniques, technologies, tools, and methods 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	P6U_W
	KTM1_U12	Student is able to use modern technological tools needed in the process of music creation.	P6S_UW	P6U_W
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	P6U_K
	KTM1_K12	Student is ready to conduct self-assessment, and boasts a sense of responsibility for one's own health and safety and that of others.	P6S_KK	P6U_K

TEACHING METHODS

lecture, work with text and discussion, case studies, problem solving, artistic problem solving, individual work, group work, presentation of CD and DVD recordings, activation (brainstorming, snowball method, mind mapping), SWOT technique, decision tree technique, problem-based learning (PBL), problem-solving sessions, other methods used by the instructor, distance learning

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	
Course Completion Requirements	attendance at classes (acceptable absence in accordance with the Study Regulations) achievement of all the intended learning outcomes to an acceptable degree

STUDENT WORKLOAD	Credit Hours Total	ECTS Credits
Contact hours with the instructor <i>(classes, consultations)</i>	30	2
Hours of independent student work <i>(preparing for classes, graded test, exam, presentation, concert)</i>	30	

Recommended Reading
W. Kotoński, <i>Muzyka elektroniczna</i>
G. Nierhaus (red.), Patterns of Intuition: Musical Creativity in the Light of Algorithmic Composition
G. Nierhaus, Algorithmic Composition: Paradigms of Automated Music Generation
M. Strzelecki, Niech się stanie muzyka! O muzycznej generatywności
B. Schaeffer, Wstęp do kompozycji
D. Smalley, Spectromorphology: Explaining Sound-Shapes
D Smalley, Spectro-Morphology and Structuring Processes
Supplementary Reading
F. Zotter, Ambisonics
M. Janocha, Współczesne systemy wielokanałowej projekcji dźwięku jako środek wyrazu artystycznego
L. Bielawski, Strefowa teoria czasu
M. Pasiecznik, Acousmonium. Tożsamość głośnika
D. G. Malham, Approaches to spatialisation
D. Cope, Techniques of the Contemporary Composer
Virtual Libraries and On-Line Resources (optional)
Not applicable