GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Acoustics project, PG_00052803		
Field of study	Architecture		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study 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	3	Language of instruction	Polish
Semester of study	5	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Technical Fundamentals of Architecture Design -> Faculty of Architecture		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. arch. Bogumiła Kapica	
	Teachers	prof. dr hab. inż. Andrzej Kulowski mgr inż. arch. Bogumiła Kapica	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	15.0	0.0	0.0	15

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	15	2.0	8.0	25

Subject objectives

To acquaint the student with the mechanism of sound and vibration transmission in building structures and the propagation of noise in the environment. To acquaint the student with the principles of soundproofing of the building and with the form of room acoustics.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U03] is able to prepare a graphic, written and oral presentation of your own design concepts in the field of architecture and urban planning, meeting the requirements of a professional record appropriate for architectural and urban design	The student has knowledge of the ways and mechanism of sound and vibration transmission in building structures and the propagation of noise in the field. The student knows the mechanism of sound propagation in rooms.	[SU3] Assessment of ability to use knowledge gained from the subject
[K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design	The student is aware of the importance of acoustics for the function of the room and learns about the possibilities of influencing its acoustic properties.	[SW1] Assessment of factual knowledge

Subject contents

1. Getting to know the operation of the SABINE computer program
2. Getting to know the acoustic properties of building and finishing materials stored in the database
3. Case study: study of a sample room, making sample calculations
4. Choosing a room, developing the proportions and shape of the interior, ceiling and wall profile, auditorium layout, escape routes.
5. Development of the arrangement of finishing materials. Calculation of acoustic parameters taking into account design recommendations.
6. Preparation of the report entitled Acoustic guidelines for interior design

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Preparation of the final study	100.0%	100.0%

Recommended reading	Basic literature	Ozimek E.: Dźwięk i jego percepcja. Warszawa 2002, Wydawnictwo Naukowe PWN Everest A.: Podręcznik akustyki. Katowice 2004, Wydawnictwo Sonia Draga
	Supplementary literature	Sadowski J.: Akustyka w urbanistyce, architekturze i budownictwie. Arkady, Warszawa 1971 Sadowski J.: Podstawy akustyki urbanistycznej. Arkady, Warszawa 1981
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	