

FACULTY OF ARCHITECTURE

COURSE SYLLABUS

Course title in Polish: Studium projektowe: strefy widowiskowe o malej skali**Course title in English: Design studio: small scale assembly places****Specialization (if applicable): Architecture****Profile (if applicable): academic****Level and form of studies: 1st level, full-time****Course type: elective****Course code: AUA118354P****Group of courses: NO**

	Lecture	Tutorial	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				60	
Number of hours of total student workload (CNPS)				180	
Form of crediting				Crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				6	
including number of ECTS points for practical (P) classes				6	
including number of ECTS points for direct teacher-student contact classes or other people conducting classes (BU)				4	

PREREQUISITES RELATED TO KNOWLEDGE, COMPETENCES AND SOCIAL SKILLS

None

COURSE OBJECTIVES

C1 The objective of the course is to present knowledge on architectural design of small scale assembly spaces both for internal and external (open-air) performances.

C2 The course equips students with the skills in designing buildings of small cubic volume and one dominating function – assembly space for public gatherings (auditoriums), by solving a selected structure in one of the proposed locations.

COURSE LEARNING OUTCOMES

Relating to knowledge:

A.W1. - the graduate knows and understands architectural design related to completing simple tasks, in particular simple buildings that satisfy basic needs of users, single-family and multi-family residential buildings, service facilities in residential complexes, public use buildings in an open landscape or in an urban environment

A.W4. - the graduate knows and understands the principles of universal design, including the concept of designing spaces and buildings accessible to all users, in particular to people with disabilities, in architecture, urban planning and spatial planning, and the principles of ergonomics, including ergonomic parameters necessary to provide full functionality of the space and structures under design to all users, in particular for people with disabilities

Relating to competences:

A.U1. - the graduate is able to design a simple architectural structure, creating and transforming space so as to give it new values – in accordance with the assigned or adopted program which takes into account the requirements and needs of all users

A.U5. - the graduate is able to think and act in a creative manner, making use of practical skills that are necessary to maintain and broaden the ability to implement artistic concepts in architectural and urban design

A.U9. - the graduate is able to implement the principles and guidelines of universal design in architecture, urban planning and spatial planning

Relating to social skills:

A.S1. - the graduate is ready to think independently to solve simple design problems

PROGRAMME CONTENT

Form of classes – PROJECT		Number of hours
Proj1	Introductory speech: Introduction to classes. Literature. Graduation terms. Sound in a room - general issues: sound propagation, direct acoustical wave and reflection, reverberation time. Workshop I: experiments in architectural acoustics.	4
Proj2	Research, work and consultations on the architectural concept, including: Site development, scale and capacity of the designed assembly hall. Case studies.	4
Proj3	Workshop II: Master Plan – 1:500 scale, workshop model of the structure with the surroundings.	4
Proj4	Presentation I, discussion, brainstorming.	4
Proj5	Introductory speech: Architectural acoustics – notions and definitions. Experiments with sound and architecture – the relations between space formation and the methods of propagation of acoustic waves.	4
Proj6	Research, work and consultations on the architectural concept, including: - plans and layouts – 1:50 scale,	4
Proj7	- acoustical diagram – 1:50 scale,	4
Proj8	Class work and consultations on the architectural concept, including: - sections – 1:50 scale,	4
Proj9	- acoustical solutions – 1:50 scale,	4
Proj10	- visibility lines diagram – 1:50 scale.	4
Proj11	Introductory speech: Function and structure – assembly (auditoriums) room typology and examples. Case studies.	4
Proj12	Class work and consultations on the architectural concept, including: - facades – 1:50 scale,	4
Proj13	- visualizations	4

Proj14	Research, work and consultations on the graphical presentation and description (reflections).	4
Proj15	Presentation II, discussion. Final grading. Feedback and peer-to-peer feedback.	4
	Total hours	60

TEACHING TOOLS	
N1. Harvard lecture. N2. Multimedia presentation. N3. Presentation of project. N4. Case study. N5. Consultation. N6. Brain storming. N7. Physical modelling. N8. Graphical analysis. N9. Discussion.	

ASSESSMENT OF ACHIEVEMENT OF LEARNING OUTCOMES

Evaluation (F – forming (during semester), C – concluding (at semester end))	Number of learning outcome	Method of assessing the achievement of learning outcome
F1	A.W1, A.W4, A.U1., A.U5., A.U9.	Assessment of the content quality of the project.
F2	A.S1.	Assessment of final project presentation.
$C = 75\%F1 + 25\%F2$		

BASIC AND ADDITIONAL LITERATURE	
<p><u>BASIC LITERATURE:</u></p> <p>[1] Ahnert, W., Steffen, F., <i>Sound Reinforcement Engineering: Fundamentals and Practice</i>, London 1999.</p> <p>[2] “Auditoria Magazine” - Annual, www.ukimediaevents.com</p> <p>[3] “Architectural Acoustics-Multibook”, www.arac-multibook.com</p> <p>[4] Beranek, L., <i>Concert Halls and Opera Houses: Music, Acoustics and Architecture</i>, New York 2004.</p> <p>[5] Beranek, L., <i>Concert and Opera House. How they Sound</i>, Woodbury 1996.</p> <p>[6] Barron, M., <i>Auditorium Acoustics and Architectural Design</i>, London 1993.</p> <p>[7] Boulet, M.L., Moissinac, Ch., Soullignac, F., <i>Auditoriums</i>, Paris 1990.</p> <p>[8] Breton, G., <i>Theater</i>, Paris 1990.</p> <p>[9] Carnegie, P., <i>Wagner and the Art of the Theatre: The Operas in Stage Performance</i>, New Haven, London 2006.</p> <p>[10] Hammond, M., <i>Performing Architecture: Opera Houses, Theatres and Concert Halls for the Twenty-first Century</i>, London, New York 2006.</p> <p>[11] Heathcote, E., <i>Cinema Builders</i>, Chichester 2001.</p> <p>[12] Izenour, G. C., <i>Theater Design</i>, New Haven 1996.</p> <p>[13] Jablonska J., <i>Architectural acoustics in vineyard configuration concert hall</i>, in: Journal of Architectural Engineering Technology 2018, vol. 7, no 2, pp. 1-6.</p> <p>[14] Jabłońska J., Furmańczyk J., <i>Concert halls development in respect of architectural acoustics</i>, in: 12th Architecture in perspective 2020 = 12. Architektura v perspektivě 2020, proceedings of the international conference = sborník příspěvků z mezinárodní conference, eds. Peřínková M., Jüttnerová S., Videcká L., VSB - Technická univerzita Ostrava 2020. pp. 345-350.</p>	

- [15] Jabłońska J., Trocka-Leszczynska E., Tarczewski R., *Sound and architecture – mutual influence*, in: Energy Procedia 2015, vol. 78, pp. 31-36.
- [16] Jodidio, Ph., *Architecture Now!*, Cologne 2012-2018.
- [17] Jordan, V. L., *Acoustical Design of Concert Halls and Theatres. A personal Account*, London 1980.
- [18] Long, M., *Architectural acoustics*, Amsterdam 2014.
- [19] Lord, P., Templeton, D. *The Architecture of Sound. Design Places of Assembly*, London 1986.
- [20] Steele, J., *Theatre Builders*, Chichester 1996.

ADDITIONAL LITERATURE:

- [1] Architectural platforms, among others: “ArchDaily”, “Dezeen”, 2012-2018.
- [2] McCandless, D., Concert Halls. Specifying Sound for Performance, reprint „The Construction Specyfier”, publication 04.1999, Internet Source:
www.jeacoustics.com/library/pdf/ConSpec_Apr90_Concert_Halls.pdf, access from 25.04.2013.
- [3] Bradley J. S., Madaras, G., Jaffe ,Ch., Acoustical Characteristics of a 360-degree Surround Hall, „The Journal of the Acoustical Society of America”, 1997, no. 5, p. 3135.
- [4] Cavanaugh, W. J., Wilkes, J. A., Architectural Acoustics: Principles and Practice, New York. 1999.
- [5] Springer Handbook of Acoustics, Rossing Th.D. (red.), New York 2007.
- [6] Wisniewski, E., Die Berliner Philharmonie und Ihr Kammermusiksaal. Der Konzertsaal als Zentralraum, Berlin 1993.

COURSE SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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