

COURSE DESCRIPTION

Faculty of Civil Engineering and Environmental Sciences									
Field of study								Degree level and programme type	
Specialization/ diploma path	-							Study profile	Academic profile
Course name	M-5. Project of small architecture object							Course code	IS-FCEE-00274W
								Course type	Erasmus
Forms and number of hours of tuition	L	C	LC	P	SW	FW	V	Semester	winter
				30				No. of ECTS credits	2
Entry requirements	No requirements								
Course objectives	The aim of the activities included in this unit is to make students able to apply the knowledge and methodology of professional projects of architecture and engineering to the design of a small architecture object designed by a team of 3 students from different universities								
Course content	<p>Activities included to reach this aim are very different. They include face-to-face and blended PART. Including materials available on www.glocal.pb.edu.pl prepared by 3 European universities:</p> <p>P (Lecture):</p> <ul style="list-style-type: none"> - Accessibility of public space. Case study of bus stops. - Modern architecture. Small architecture objects in public space – bus stops. - Design of small architecture objects in heritage and landscape values context - Use of the roof of bus / train stops to generate electricity using PV panels - Transport shelters and bus stops(example of Madrid) - Accessibility of public space / Accessibility of public space –case study of bus stop - Safety in public space - PV - Bus stop task <p>Presentation and discussion of basic knowledge of the contents related to it.</p> <p>P (FW – field work) (f.e. visits to producers of green bus stops and green roofs, studial visit to institutions, firms)</p> <p>P – project classes.</p> <p>The aim is to be able to apply the knowledge related to this unit to the team design for the project of a small architecture object in different European cities locations.</p> <p>The goal will be achieved through:</p> <p>-presentation, discussion and exchange of thoughts on examples of existing transport shelters and bus stops in public space including historic cities related to this course</p>								

	<p>-consideration of complexed conditions and design criteria (f.e. location, climate, functional, social, composition, heritage, ...)</p> <p>-presentation and discussion of conclusions of the conditions analysis</p> <p>-discussion and exchange of thoughts on innovation technologies (f.e. using renewable sources of energy photovoltaic panels, wind turbines, water installation, cooling / heating installation, smart city installations, rain water retention ect... and materials (greenery for green roofs and walls)</p> <p>-discussion and exchange of thoughts on accessibility, safety, heritage context, city branding, impact on the small architecture object</p> <p>-problem based learning as methodology to the creation of the small architecture objects projects ideas, cooperation with tutors of the students teams</p> <p>-discussion of the results and solutions proposed by student teams. Possible correction of proposed solutions.</p> <p>Assessment: The developed team solution used for Final Oral Presentation of the 3 students team project.</p>	
Teaching methods	Lecture (L), field work (FW) and project classes (P), carrying out a design work for small architecture object in a team of 3 students from different universities. Students virtual collaboration (V- Teams platform). Problem Based Learning method.	
Assessment method	Partial oral presentation at the end of the first part of summer school and Final Oral Presentation of the team for design work defence and evaluation of design work. Final poster of the team design (Face-to Face part)	
Symbol of learning outcome	Learning outcomes	Reference to the learning outcomes for the field of study
LO1	The graduates show general understanding of the main concepts related to design a small architecture objects like bus stop shelter, with the methodology used for professional projects of architecture and engineering.	GLOCAL_M5_K21 (K_GP1_W07)
LO2	The graduates can apply and integrate the scientific knowledge learned to the design of a bus stop shelter, as well as make the analysis of their suitability and integration using professional architecture and engineering methodologies.	GLOCAL_M5_S16 (K_GP1_U15, K_GP1_U12, K_AK1_U09, K_AK1_U10, K_AK1_U11, K_AK1_U12, K_AK1_U13)
LO3	The graduates accept cultural diversity and differing points of view and reflect critically on stereotypical cultural perceptions of reality, to be able to communicate effectively ideas for team work in the intercultural context of the 3 different European countries of its members	GLOCAL_SC05 (K_GP1_K04, K_AK1_U17)
LO4	The graduates can formulate and communicate to the audience, in a professional way, information and opinions concerning their team design of a bus stop shelter, as basic skills for multidisciplinary project development.	GLOCAL_SC06 (K_AK1_K03, K_GP1_K01, K_GP1_K02)
LO5	The graduates can reliably and responsibly perform the assumed or assigned professional roles, taking into account the social determinants of the surrounding environment, as skills for multidisciplinary project development.	GLOCAL_SC07 (K_GP1_K06, K_AK1_U18)
LO6	The graduates can apply and adhere to the principles of professional ethics and conduct themselves in a professional manner while performing job duties and to enforce such behavior on others.	GLOCAL_SC08 (K_GP1_K06, K_GP1_K05, K_AK1_K04)

Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
L01	Partial oral presentation, defence of the completed project - final oral presentation, final poster	P	
L02	Partial oral presentation, defence of the completed project - final oral presentation, final poster	P	
L03	Partial oral presentation, defence of the completed project - final oral presentation, final poster	P	
L04	Partial oral presentation, defence of the completed project - final oral presentation, final poster	P	
L05	Partial oral presentation, defence of the completed project - final oral presentation	P	
L06	Partial oral presentation, defence of the completed project - final oral presentation	P	
Student workload (in hours)		No. of hours	
Calculation	Participation in P (lecture).	5	
	Participation in project classes	20	
	Participation in field works	5	
	Collaboration in students team	10	
	Preparation and presentation of Final Project design	10	
	TOTAL:	50	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		30	1
Student workload – practical activities		20	1
Basic references	<p>Urban public spaces: Madrid, Bialystok, Klaipeda. A guide to their functions and meaning (2022) María Aurora Flórez de la Colina Pilar Cristina Izquierdo Gracia, Dorota Gawryluk Editors, Wydawnictwo Ekonomia i Środowisko (available on: https://glocal.pb.edu.pl/en/results/)</p> <p>Future of the City (2021, 2022) Dorota Gawryluk, Dorota Anna Krawczyk Editors, Oficyna Wydawnicza Politechniki Białostockiej (available on: https://glocal.pb.edu.pl/en/results/)</p> <p>Small Glossary of Technical Terms for English–Polish–Spanish–Lithuanian Languages (2020) Dorota Gawryluk, Jurga Kucinskiene, Sausdino UAB „Vitae Litera” (available on: https://glocal.pb.edu.pl/en/results/)</p> <p>Empresa Municipal de Transportes, EMT, 2013, Formalización de contratos: Ref./ nº Expte: 13/075 /3-E. Título y objeto del Procedimiento: Gestión de servicios en la modalidad de concesión para el diseño, fabricación, suministro, instalación, conservación, explotación, traslado, retirada, mantenimiento de marquesinas y postes-bus en la villa de Madrid y explotación publicitaria de las instalaciones. Search with the file number “13/075/3-E” all the published documentation regarding this tender in EMT website: “Adjudicación”. [Online:] http://www.emtmadrid.es/data/comun/130753Eanuncio-web-formalizacion.pdf (Access: 2020). “Pliego de Condiciones”. Retrieved from: https://www.emtmadrid.es/data/comun/130753E-pliego.pdf (Available:2020)</p> <p>Empresa Municipal de Transportes, EMT, EMT y sus inicios. In EMT, Informe anual 2006, p.86 and 114, [Online:] https://www.emtmadrid.es/Ficheros/EMT-y-sus-Inicios.aspx (Available:2021)</p> <p>Empresa Municipal de Transportes, EMT, Smart Madrid» llega a las 5.500 paradas de la EMT.” In “El blog de la EMT”, 4 diciembre 2014. [Online:] https://blog.emtmadrid.es/2015/07/09/smartmadrid-</p>		

	<p>llega-a-las-5-500-paradas-de-la-emt/ (Available:2020) Empresa Municipal de Transportes, EMT, Te lo contamos todo sobre las Marquesinas de la EMT Madrid. 2014, In "El blog de la EMT", 4 diciembre 2014. [Online:] https://blog.emtmadrid.es/2014/12/04/te-lo-contamos-todo-sobre-las-marquesinas-de-la-emt-madrid/ (Available:2020) European Investment Bank, EIB Institute; Universidad Politécnica de Madrid, UPM; ASCIMER, Smart City. In Assessment Methodology for Smart City Projects. Application to the Mediterranean Region, "ASCIMER (Assessing Smart City Initiatives for the Mediterranean Region) Project Summary, Introduction, 2017, p. 5, [Online:] https://institute.eib.org/wp-content/uploads/2017/02/2017_0131-ASCIMER-PROJECT-SUMMARY.pdf (Available:2021) Great Britain, Commission for Architecture and the Built Environment (CABE), Urban design in the planning system: towards better practice. London, Crown 2000. Izquierdo Gracia P.C.; Flórez de la Colina, M.A., Madrid, history, architecture and urban planning: a smart and sustainable city?, MOOC Course documents in Miriada X platform, 2016 Mohedas Garcia C. et al., 90 años de metro en Madrid. De cuatro Caminos a Hospital del Henares. Madrid 2010, Ediciones La Librería. Selection of documents related with Urban planning in Madrid (in Spanish): Plan Castro (1860), [Online:] https://www.madrid.es/UnidadWeb/Contenidos/Publicaciones/TemaUrbanismo/PlanCastro/plancastrocorr.pdf (Available:2021) Thales, Smart city, 2021, [Online:] https://www.thalesgroup.com/en/markets/digital-identity-andsecurity/iot/inspired/smart-cities (Available:2021) materials for this unit available on www.glocal.pb.edu.pl prepared by 3 European universities</p>	
Supplementary references		
Organisational unit conducting the course	BUT, FCEES, Department of Sustainable Construction and Building Systems	Date of issuing the programme
Author of the programme	Dorota Gawryluk, PhD, Eng. arch., Maciej Kłopotowski, PhD, Eng. arch., Marta Baum, MSc, Eng. arch., Wojciech Matys, PhD, Eng. arch., Kamil Rawski, PhD, Eng. arch.	12.11.2022

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work,

V-virtual part , S – seminar