Course code: ……. **Plan position:** ……

A. INFORMATION ABOUT THE COURSE

B. Basic information

Name of course	**BUILDING AND PREFABRICATION**
Field of studies	civil engineering
Level of studies	master's degree
Profile of studies	general academic
Form of studies	full-time
Specialty	common part
Unit responsible for the field of studies	Faculty of Civil And Environmental Engineering and Architecture
Name and academic degree of teacher(s)	Ph.D. Łukasz Mrozik
Introductory courses	-
Introductory requirements	-

C. Semester/week schedule of classes

Semester	Lectures (W)	Auditorium classes (Ć)	Laboratory classes (L)	Project classes (P)	Seminar (S)	Field classes (T)	Number of ECTS points
Winter	30						6

2. LEARNING OUTCOME

No.	Learning outcomes description	The reference to the learning outcomes of specific field of study	The reference to the learning outcomes for the area
	KNOWLEDGE		
W1	has basic knowledge of the design and manufacture of prefabricated elements from various construction materials, has basic knowledge of prefabrication technology, understands the importance of designing, taking into account the life cycle analysis of a building (LCA)	K_W27	P6S_WG
	SKILLS		
U1	is able to develop documentation regarding the implementation of an engineering task and prepare a text containing a discussion of the results of this task	K_U03	P6S_UW, P6S_UK
U2	is able to design basic prefabricated elements using appropriate standards and design guidelines, is able to	K_U35	P6S_UW

	develop technological processes for the production of prefabricated elements		
SOCIAL COMPETENCES			
K1	is aware of the responsibility for the effects of the adopted engineering solutions	K_K04	P6S_KK, P6S_KR
K2	is aware of the responsibility for the effects of the adopted design and engineering solutions in terms of the safety of the designed and constructed building and its impact on the natural environment	K_K07	P6S_KK, P6S_KO, P6S_KR

3. TEACHING METHODS

A. Traditional methods used ***

multimedia lecture, discussion, examples

B. Distance learning methods used ***

Synchronous method:
remote lecture in the form of videoconference, remote discussion

Asynchronous method:
online multimedia presentations

4. METHODS OF EXAMINATION

colloquium

5. SCOPE

Lectures	Introduction. Criteria for classifying prefabricated elements. Actual, nominal and modular dimensions of the prefabricated element. Methods of production of concrete, steel and wooden prefabricated elements. Basic technological processes in the production of prefabricated elements. Strength of concrete in individual stages of prefabrication work. Cements for prefabrication. Precast concrete admixtures. Transitional phases. Technical documentation of the prefabricated element.
Laboratories	-

6. METHODS OF VERIFICATION OF LEARNING OUTCOMES

LEARNING OUTCOME	Form of assessment					
	Oral examination	Written exam	Colloquium	Project	Presentation	……
W1			x			
U1			x			
U2			x			
K1			x			
K2			x			

7. LITERATURE

Basic literature	1. Starosolski W., 2016. Konstrukcje żelbetowe według Eurokodu 2 i norm związanych Tom 5. Wydawnicwo Naukowe PWN. 2. Rowiński L., 1987. Technologia produkcji prefabrykatów budowlanych. Wydawnicwo Naukowe PWN.

Supplementary literature	1. Neuhaus H., 2008. Budownictwo drewniane. Polskie Wydawnictwo Techniczne PWT. 2. Biegus A., 2018. Stalowe budynki halowe. Wydawnictwo Arkady. 3. Bielawski J., Chrabczyński G., Hładyniuk W., 1978. Projektowanie form do prefabrykacji budowlanej. Wydawnictwa Naukowo-Technicze.

8. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity		Student workload– number of hours
Classes conducted under a direct supervision of an academic teacher or other persons responsible for classes	Participation in classes indicated in point 1B	30
	Supervision hours	10
Student's own work	Preparation for classes	40
	Reading assignments	50
	Other (preparation for exams, tests, carrying out a project etc)	50
Total student workload		180
	Number of ECTS points	6