Study program: Civil Engineering

Course: **Design of Buildings**

Professor/assistant: Aleksandra T. Marinković / Simona Smiljković

Status of course: elective

ECTS credits: 6

Pre-requisites: none

Aims of the course:

The objective of the course is to prepare a student to:

- accomplish the set project task and develop projects for objects of different sizes, complexities and typologies using available techniques and computer programs;
- use the methodology of designing facilities for work and housing;
- use modern approaches to designing, taking into account: customer requirements, user needs, location and context adaptab., modern constr. Techn., environmental impacts and sustainable design premises;
- develop independ. the concept. Solute. of the build. and particip. in team build. of more complex proj.;
- present a newly designed conceptual solution to the public from the same profession.

Learning outcomes:

A positive outcome is reflected in developing a student's ability to:

- define and specify characteristics of quality spatial organization of facilities;
- analyze and evaluate natural and created factors that influence the design of objects;
- develop conceptual and critical approaches to design, aligning the technical construction requirements and user needs with the aesthetics of the building;
- use the normative and legal regulations related to design;
- according to the given project conditions, independently develop a conceptual solution for a particular object.

Syllabus:

Theoretical part

Function of housing. Structure and organization of the basic elements of a housing unit. Elements of spatial org. of obj. Mutual relations of funct. units. Dominant and subordinate lines of comm. within the facility. Struct. and org. of premises. Funct., struct. and spatial organization. Defining the requirements of clients and users and their adaptability to location and context. Designing the project solution. Characteristics of assembl. and the way of group. the units, the basic specifics of family and multi-family housing. Conceptual and critical approach to designing, integrating aesthetics of objects, technical construction requirements and user needs.

Practical part

Work on a conceptual design – in accordance to the project task (taking into account natural and created conditions on the site, contexts, user needs, building hight and surface area)..

Literature:

1. Lj. Bjondić, *Uvod u projektiranje stambenih zgrada*, Arhitektonski fakultet, Zgreb, 2011.
2. G. Pfeifer, P. Brauneck, *Residential buildings: a typology*, Birkhäuser, Basel, 2015.
3. D. Ilić, *Projektovanje stambenih zgrada*, Građevinski fakultet, Niš, 1992.
4. G. Knežević, *Višestambene zgrade*, Tehnička knjiga, Zagreb, 1984.
5. Nojfert, *Arhitektonsko projektovanje*, Građevinska knjiga, Beograd, 2002.
6. J. Adam, K. Hausmann, F. Juttner, *Industrial Buildings: A Design Manual book*, Alibris Books, Birkhauser, 2004.
7. J. Drury, P. Falconer, *Buildings for Industrial Storage and Distribution*, Routledge, 2003.

Number of active classes			Other forms of teaching:
Lectures: 2	Practical classes: 2	Laboratory classes: 0	

Teaching methods:

Combination of interactive approach with practical problems solving.

Grading system (maximum 100 points), **grading scale** from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

Pre-commitments	**points**	**Final exam**	**points**
activity during lectures	10	written exam	50
colloquium(s)	20 + 20	oral exam	-
Sum	**50**	**Sum**	**50**