**UČNI NAČRT PREDMETA / COURSE SYLLABUS**

| | |
|---|---|
| **Predmet:** | **Načrtovanje stanovanjske gradnje** |
| **Course title:** | **Design of the Residential Buildings** |

| **Študijski program in stopnja**<br>**Study programme and level** | **Študijska smer**<br>**Study field** | **Letnik**<br>**Academic year** | **Semester**<br>**Semester** |
|---|---|---|---|
| Pravo in management nepremičnin 2. stopnje | | 1 | 1 |
| Law and Management of Real Estate 2nd Degree | | 1 | 1 |

| | |
|---|---|
| Vrsta predmeta / Course type: | obvezni/mandatory |
| Koda predmeta /Course code: | |

| **Predavanja**<br>**Lectures** | **Seminar**<br>**Seminar** | **Vaje**<br>**Tutorial** | **Druge oblike študija**<br>**Other type study** | **Samost. delo**<br>**Individual work** | **ECTS** |
|---|---|---|---|---|---|
| 40 | 0 | 0 | 0 | 160 | 8 |

| | | |
|---|---|---|
| Nosilec predmeta / Lecturer: | | prof. dr. Živa Kristl / Prof. Živa Kristl, PhD |
| Jeziki/Languages: | Predavanja / Lectures: | slovenski jezik/Slovenian |
| | Seminar / Seminar: | slovenski jezik/Slovenian |

**Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:**

Zahteva se vsaj 80 % prisotnost na predavanjih in vajah.

**Prerequisites:**

At least 80% attendance at lectures and tutorials is required.

**Vsebina:**

Predmet obravnava načrtovanje stanovanjske gradnje v kontekstu materialnega ovoja prostora (nosilna konstrukcija, regulacijske funkcije, kompozicija) in stanovanja kot prostora znotraj izgrajenega ovoja, ki je namenjen ugodnemu bivanju (ugodje, fizikalni parametri). Tretji element so značilnosti lokacije in dejavniki okolja, ki vplivajo na načrtovanje stanovanjske gradnje. Predmet sledi novim razvojnim smernicam načrtovanja stanovanjske gradne, saj postaja očitno, da v postindustrijski družbi notranje okolje postaja človekovo dominantno okolje. Koncept stavbnega ovoja se danes transformira in postaja opna, ki zaščiti notranji prostor pred vremenskimi neprijetnostmi. Bivalni prostor se glede kvalitete in impulzov okolja vedno bolj staplja z zunanjim prostorom, kar izboljšuje zdravje in ugodje uporabnikov. Predvsem je poudarek na toploti, dnevni svetlobi, osončenju in zraku. Funkcionalno bivalni prostor postaja fluiden in fleksibilen. Dodatna tendenca je čim boljša adaptacija stavbe na okoljske pogoje ter čim manjši vplivi na okolje (trajnostnost gradnje). Tak pristop omogočajo tudi nove informacijske tehnologije, ki nadzirajo in vodijo odziv stavbe.

Pri obravnavi načrtovanja stanovanjske gradnje je pomembno razumevanje dinamike uporabe prostora

**Content (Syllabus outline):**

The course deals with the planning of housing in the context of the material envelope of the space (load bearing structure, control functions, composition) and the apartment as a space within the built envelope, which is intended for a favorable stay (function, comfort, physical parameters). The third element are the location parameters and environmental factors that influence residential construction planning. The course follows the newest development of housing construction planning. It is becoming apparent that in post-industrial society, the internal environment is becoming man's dominant environment. Today, the concept of building envelope is being transformed and is becoming a membrane that should protect the interior space from weather inconveniences. In terms of quality and environmental impulses, the living space is increasingly merging with the outdoor space, which improves the health and comfort of users. Above all, the emphasis is on heat, daylight, sunshine and air. Functionally the living space becomes fluid and flexible. An additional tendency is the best possible adaptation of the building to environmental

(tlorisna zasnova, funkcionalnost) in zavedanje, da ni enotnega in stalnega načina stanovanja. Predmet zajame razvoj tipologije stanovanjskih stavb skozi čas, kar omogoča razumevanje delovanja obstoječih stavb in postavi temelje za razumevanje prenov in nadaljnjega razvoja (npr. industrializacija gradnje). V kontekstu trajnostnosti je pri predmetu predvsem zajet konceptualni razvoj odnosa med notranjim in zunanjim prostorom ter različni pristopi v skladu s stopnjo razvoja družbe in tehnologije in trajnostno vrednotenje bivalnega prostora.
Na področju načrtovanja je poudarek na tehnični komunikaciji, opredelitvi temeljnih postopkov načrtovanja in kriterijev za vrednotenje uspešnosti načrtovanja. Vsa izhodišča so predstavljena s pomočjo širokega nabora primerov iz prakse.

conditions and the smallest possible impact on the environment (sustainability of construction). Such an approach is also made possible by new information technologies that control and guide the response of the building.

When considering housing construction planning, it is important to understand the dynamics of space use (floor plan, functionality) and to be aware that there is no uniform and permanent way of living. The course covers the development of a typology of residential buildings over time, which enables an understanding of the operation of existing buildings and lays the foundations for understanding refurbishment and further development (eg. industrialization of construction). In the context of sustainability, the course mainly covers the conceptual development of the relationship between indoor and outdoor space and various approaches in accordance with the level of development of society and technology and the sustainable evaluation of living space.
In the field of design, the emphasis is on technical communication, the definition of elementary planning procedures and criteria for evaluating the planning realization. All explanations are presented with the help of a wide range of practical examples.

**Temeljna literatura in viri / Readings:**

**Obvezna (Obligatory):**


1. Živa Kristl, Trajnostni vidiki stanovanjske gradnje. 1. natis. Nova Gorica: Nova univerza, Evropska pravna fakulteta, 2019. 263 str., ilustr. ISBN 978-961-6731-30-0. [COBISS.SI-ID 301510656] (izbrana poglavja)
2. Deplazes, Andrea (Ed.), 2013: Constructing Architecture, Materials, Processes, Structures A Handbook, ISBN: 3-7643-7189-7, A Birkhäuser book, Basel. Izbrana poglavja
3. Szokolay Steven V., Introduction to Architectural Science, Architectural press 2004. Izbrana poglavja
4. Ching Francis D.K., Architecture: Form, Space and Order, New York: Van Nostrand Reinhold, 1979. Izbrana poglavja
5. Dieter George E., Engineering Design: A Materials and Processing Approach, McGraw Hill, 2000


**Priporočena (Recommended):**


1. Van Gameren Dick, Ibelings Hans, 2006: Revisions of Space - An Architectural Manual, ISBN: 9056624210, Nai publishers, Amstredam. Izbrana poglavja
2. Asimow Morris, Introduction to Design, Prentice-Hall, 1962
3. Ching Francis D. K., ARCHITECTURAL GRAPHICS, JOHN WILEY & SONS, 2003
4. Hegger M., Construction materials manual. Basel: Birkhäuser, Munich: Edition Detail,cop. 2006.
5. Roth Leland M., Roth Amanda C. Clark, Understanding Architecture its Elements, History, and Meaning, Westview press, 1993
6. Neufert, Projektiranje v stavbarstvu, Tehniška založba Slovenije, 2002
7. Schneider, Friederike, 1994: Grundrißatlas : wohnungsbau = Floor plan atlas : housing, ISBN: 3-7643-2625-5, Birkhäuser, Basel
8. Rapoport, A., 1969: House form and culture, Pretence hall, Engelwood Cliffs.

9. Zupančič, B., 2008. Die Architektur der ersten hälfte des 20. Jahrhunderts im Slowenischen raum : vom Architekten Anton Laščak bis zu den Schülern Plečniks bei Le Corbusier = Architecure on Slovenian area during the first half of the 20th century : from the architect Anton Laščak to the students of Plečnik with Le Corbusier. V: STILLER, Adolph (ur.). Slowenien : Architektur, Meister & Szene = Slovenia : architecture, the masters & the scene, (Architektur im Ringturm, 17). Salzburg: A. Pustet.
10. Venturi, R., 1977. Complexity and Contradiction in Architecture. New York, NY: The Museum of Modern Art.
11. Vitruvius, M. P., 1914. The Ten Books on Architecture. Morris Hicky Morgan. Cambridge: Harvard University Press. London: Humphrey Milford. Oxford University Press. [online] Dostopno na: http://www.perseus.tufts.edu/hopper/text?doc=Vitr.%206.7&lang=original [16.08.2018].

**Regulatorni in strateški dokumenti s področja, npr.:**

1. Evropski zeleni dogovor, 2020; https://ec.europa.eu/info/publications/communication-european-green-deal_en
2. COM 433, 2012. Strategija za trajnostno konkurenčnost gradbenega sektorja in gradbenih podjetij. Sporočilo Evropske komisije Evropskemu parlamentu in Svetu. [online] Dostopno na: https://eur-lex.europa.eu/legal-content/SL/TXT/PDF/?uri=CELEX:52012DC0433&from=en [20.10.2018].
3. MOP, Resolucija o nacionalnem stanovanjskem program 2015-2025, https://www.gov.si/assets/ministrstva/MOP/Publikacije/d42acebd4d/resolucija_nsp_2015_2025.pdf [online] Dostopno na: http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/podrocja/stanovanja/NSP_spremljajoce_gradivo_2015.pdf
4. Veljavna EU in RS regulativa s področja
5. Periodična literatura (priporočeni znanstveni članki s področja)
6. Študijska gradiva dostopna v spletni učilnici

**Cilji in kompetence:**

**Objectives and competences:**

Študentje bodo razvili **splošne kompetence**:

- sposobnost samostojnega in avtonomnega študijskega dela;
- sposobnost kritične strokovne analize in razprave o temeljnih pojmih načrtovanja;
- uporaba ustreznih metod raziskovanja, njihovih postopkov, analize in sinteze;
- sposobnost za razumevanje in reševanje konkretnih delovnih problemov z uporabo relevantnih metod in postopkov;
- sposobnost skupinskega dela in pripravljenosti za sodelovanja pri reševanju konkretnih primerov s področja;
- razvoj komunikacijskih sposobnosti in veščin pri obravnavi in analizi nepremičnin;
- razvoj ustvarjalnosti in sposobnosti premagovanja problemov pri ravnanju z nepremičninami;
- razvoj sposobnost vodenja pri reševanju konkretnih primerov s področja načrtovanja stanovanjskih stavb;
- razvoj sposobnosti uporabe interdisciplinarnih znanj pri obravnavi problemov s področja načrtovanja stanovanjskih stavb;
- razvoj veščin in spretnosti v uporabi pridobljenega znanja ter uporaba informacijsko komunikacijske tehnologije in sistemov

Students will develop the following **general competences**:

- ability of independent and autonomous study work;
- ability to critically discuss and analyse the basic concepts of planning;
- use of appropriate research methods, their procedures, analysis and synthesis;
- ability to understand and solve specific work problems using relevant methods and procedures;
- ability to work in groups and be willing to cooperate in solving concrete cases in the field;
- development of communication skills and abilities in the treatment and analysis of real estate;
- development of creativity and ability to overcome problems in real estate management;
- development of leadership skills in solving concrete cases in the field of residential building design;
- development of the ability to use interdisciplinary knowledge in dealing with design problems;
- development of skills in the use of acquired knowledge and the use of information and communication technology and systems;

| | | |
|---|---|---|
| Študentje bodo razvili **predmetno-specifične kompetence**: | | Students will develop the following **course-specific competences:** |

| | | |
|---|---|---|
| • poglobljeno razumevanje širokega nabora pojmov v zvezi z načrtovanjem stanovanjskih stavb in sposobnost vodenja strokovnega dialoga;<br>• sposobnosti uporabe temeljnih principov tehnične komunikacije ob upoštevanju zahtev in postopkov v načrtovanju;<br>• poglobljeno razumevanje funkcije prostora v kontekstu stanovanja in presoje njenih kvalitet;<br>• seznanjenost s kompozicijskimi principi pri načrtovanju stanovanjskih stavb;<br>• poznavanje razvoja stanovanjskih stavb in sposobnost konceptualne navezave na obstoječo in bodočo stanovanjsko gradnjo;<br>• poznavanje najpomembnejših gradiv in njihovih funkcionalnih potencialov ter vpliva stavbnega ovoja na kvaliteto bivalnega prostora;<br>• natančnejše poznavanje pomena zdravega in ugodnega bivalnega okolja ter vplivnih faktorjev bivalnega okolja;<br>• sposobnost uporabe primarnih postopkov inženirskega načrtovanja in upoštevanje različnih vidikov pri vrednotenju kvalitete načrtovanega;<br>• sposobnost uporabe multidisciplinarnega pristopa pri načrtovanju in presojanju stanovanjske gradnje;<br>• sposobnost kritične analize dostopnih regulatornih virov in znanstvenih besedil;<br>• spodobnost kritične presoje primerov iz prakse in vrednotenja njihovega delovanja in kakovosti; | | • in-depth understanding of a wide range of concepts related to residential building design and the ability to conduct professional dialogue;<br>• ability to apply the fundamental principles of technical communication taking into account the requirements and procedures in planning;<br>• in-depth understanding of the function of space in the context of housing and assessment of its qualities;<br>• familiarity with compositional principles in the design of residential buildings;<br>• knowledge of the development of residential buildings and the ability of a conceptual connection to existing and future housing construction;<br>• knowledge of the most important materials and their functional potentials and the impact of the building envelope on the quality of living space;<br>• precise knowledge of the importance of a healthy and favourable living environment and the influential factors of the living environment;<br>• ability to use primary engineering planning procedures and take into account various aspects in evaluating the quality of the planned;<br>• ability to use a multidisciplinary approach in the planning and assessment of housing construction;<br>• ability to critically analyse available regulatory sources and scientific texts;<br>• the ability to critically assess practical cases and evaluate their performance and quality; |

**Predvideni študijski rezultati:**
**Znanje in razumevanje:**

**Intended learning outcomes:**
**Knowledge and understanding:**

| | |
|---|---|
| **Študent:**<br>• pozna širši pojem in pomen načrtovanja stanovanjske gradnje;<br>• poglobljeno razume pomen uporabe multidisciplinarnega pristopa pri načrtovanju stanovanjske gradnje;<br>• pravilno uporablja širok nabor osnovnih pojmov v zvezi z načrtovanjem stanovanjskih stavb in je sposoben komunicirati z različnimi deležniki v postopku načrtovanja stanovanjskih stavb;<br>• prepozna in oceni kompozicijske kvalitete pri načrtovanju stanovanjskih stavb;<br>• pozna osnovni oris razvoja stanovanjskih stavb skozi različne vidike in razume vzroke zanj;<br>• pozna osnovna gradiva in njihove funkcije;<br>• poglobljeno razume kompleksnost koncepta materialnega ovoja prostora (nosilna konstrukcija, regulacijske funkcije, kompozicija) in pozna osnovne principe njegovega delovanja;<br>• pozna in razume kompleksnost koncepta stanovanja kot prostora znotraj izgrajenega ovoja, | **Students will:**<br>• knows the broader concept and importance of residential buildings design;<br>• understands the importance of using a multidisciplinary approach in residential buildings design;<br>• correctly uses a wide range of basic concepts related to the design of residential buildings and is able to communicate with various stakeholders in the process of residential buildings design<br>• recognizes and validates compositional qualities in the design of residential buildings;<br>• knows the basic outline of the development of residential buildings through various aspects and understands the reasons for it;<br>• knows the basic materials and their functions;<br>• precisely understands the complexity of the concept of the material envelope of space (load-bearing structure, regulation functions, composition) and knows the basic principles of its operation; |

| | |
|---|---|
| ki je namenjen ugodnemu bivanju (funkcija, ugodje, fizikalni parametri);<br>• poglobljeno razume in upošteva povezavo zdravega in ugodnega bivalnega prostora in vpliva stavbnega ovoja na kvaliteto bivalnega prostora;<br>• pozna in zmore analizirati dejavnike okolja, ki vplivajo na načrtovanje stanovanjske gradnje;<br>• razume in upošteva potek osnovnih postopkov načrtovanja in razume pomen in vpliv različnih vidikov pri vrednotenju kvalitete in uspešnosti načrtovanja stanovanjskih stavb;<br>• sposoben je analizirati in kritično presojati dostopne regulatorne vire in znanstvena besedila;<br>• kritično presoja primere iz prakse in vrednoti njihovo delovanja in kakovost;<br>• razvija sposobnost umeščanja novih informacij in interpretacij v kontekst razvoja stroke na področju;<br>• razvija sposobnost fleksibilne uporabe znanja v praksi; | • knows and understands the complexity of the concept of housing as a space within the built envelope, which is intended for a comfortable stay (function, comfort, physical parameters);<br>• in-depth understands and takes into account the connection between healthy and comfortable living space and the impact of the building envelope on the quality of living space;<br>• knows and is able to analyze environmental factors that influence the residential buildings design;<br>• understands and takes into account the course of basic planning procedures and understands the importance and impact of various aspects in evaluating the quality and success of residential building planning;<br>• is able to analyze available regulatory sources and scientific texts;<br>• critically assesses examples from practice and evaluates their performance and quality;<br>• develops the ability to place new information and interpretations in the context of the development of the profession in the field;<br>• develops the ability to flexibly apply knowledge in practice; |

| **Metode poučevanja in učenja:** | **Learning and teaching methods:** |
|---|---|
| **Oblike dela:**<br>☒ Frontalna oblika poučevanja<br>☒ Delo v manjših skupinah oz. individualno<br>☒ Samostojno delo študentov<br>☒ študij s pomočjo IKT tehnologije<br>☐ drugo (vpišite) _____<br><br>**Metode (načini) dela:**<br>☒ Razlaga<br>☒ Razgovor/ diskusija/debata<br>☒ Delo z besedilom<br>☒ Proučevanje primerov raziskav<br>☒ Igra vlog<br>☒ Druge vrste nastopov študentov<br>☒ Reševanje nalog/vaje<br>☒ Študijski obiski podjetij ipd.)<br>☒ Vključevanje gostov iz prakse<br>☒ Udeležba na okrogli mizi, na konferenci | **Types of learning/teaching:**<br>☒ Frontal teaching<br>☒ Work in smaller groups or individual work<br>☒ Independent students work<br>☒ studies using ICT technology<br>☐ other _____<br><br>**Teaching methods:**<br>☒ Explanation<br>☒ Conversation/discussion/debate<br>☒ Work with texts<br>☒ Research case studies<br>☒ Role-play<br>☒ Different presentation<br>☒ Solving exercises/study exercises<br>☒ Field work (e.g. company visits)<br>☒ Inviting guests from companies<br>☒ Attending round table and conference |

| **Načini ocenjevanja:**<br>**Način (pisni izpit, ustno izpraševanje, naloge, projekt)** | **Teža (v %) / Weight (in %)** | **Assessment:**<br>**Type (examination, oral, coursework, project)** |
|---|---|---|
| Sprotno ustno (aktivno sodelovanje pri kontaktnih urah in pri raziskavah) | | Oral verification and assessment of knowledge |
| Sprotno pisno preverjanje znanja (krajši pisni izdelki) | | Written verification and assessment of knowledge (short written casework) |
| Daljši pisni izdelki (seminarska naloga, projektna naloga, raziskovalna poročila) | **25** | Longer written casework |
| Javni nastop in predstavitev lastnega raziskovalnega dela | | Public presentation of one's research |
| Končni ustni izpit | | Final examination (oral) |
| Končni pisni izpit | **75** | Final examination (written) |
| Drugo (vpišite) | | Other: |

**Reference nosilca / Lecture's references:**

1. KRISTL, Živa. Trajnostni vidiki stanovanjske gradnje. 1. natis. Nova Gorica: Nova univerza, Evropska pravna fakulteta, 2019. 263 str. ilustr. ISBN 978-961-6731-30-0. [COBISS.SI-ID 301510656]
2. KRISTL, Živa. Sustainability aspects of housing = Trajnostni vidiki nepremičnin. Dignitas : revija za človekove pravice. 2023, [št.] 97, str. 59-77. ISSN 1408-9653. [COBISS.SI-ID 168997123]
3. KRISTL, Živa, GRUM, Bojan. Urbani prostor in medgeneracijsko dojemanje pomena dnevne osvetljenosti in zelenega pogleda. V: KOBAL GRUM, Darja (ur.), GRUM, Bojan (ur.). Urbani prostor in življenjsko zadovoljstvo. 1. izd. Ljubljana: Inštitut za nepremičninske vede, 2024. Str. 147-179, ilustr., tabele, graf. prikazi. ISBN 978-961-95781-6-2. [COBISS.SI-ID 212383747]
4. KOPRIVEC, Ljudmila, ZBAŠNIK-SENEGAČNIK, Martina, KRISTL, Živa. A study of restorative potential in window views adopting Kaplan's attention restoration theory and urban visual preferences defined by Lynch. Journal of architecture and urbanism. 2022, vol. 46, iss. 2, 148-159 str.
5. Senior, C., Temeljotov-Salaj, A., Vukmirović, M., Kristl, Ž. 2021. The Spirit of Time—The Art of Self-Renovation to Improve Indoor Environment in Cultural Heritage Buildings, Energies 14 (13), 4056; https://doi.org/10.3390/en14134056
6. KRISTL, Živa, SENIOR, Coline, TEMELJOTOV SALAJ, Alenka. Ključni izzivi prilagajanja podnebnim spremembam v gradbenem sektorju = Key challenges of climate change adaptation in the building sector. Urbani izziv. [Tiskana izd.]. 2020, letn. 31, št. 1, str. 40-50, 101-111, ilustr. ISSN 0353-6483.