

**PLAN I PROGRAM NASTAVE / COURSE SYLLABUS**

Naziv predmeta:	<b>ARHITEKTONSKO PROJEKTOVANJE 5 (zdravstveni objekti)</b>
Course title:	<b>ARCHITECTURAL DESIGN 5 (buildings for medical care)</b>

Šifra predmeta / Course code	Status predmeta / Course type	Semestar / Semester	ECTS kredita / ECTS credits	Fond časova / Number of classes
<b>7.3.</b>	<b>obavezan / required</b>	<b>VII</b>	<b>9.0</b>	<b>3P+4V</b>

<b>Studijski program:</b>	ARHITEKTURA. Akademске studije Dužina trajanja: 10 semestara i 300 kredita.
<b>Study programme:</b>	ARCHITECTURE. Academic studies Duration: 10 semesters and 300 credits.

**Uslovljenost drugim predmetima:**

Nema uslovljenosti.

**Prerequisites:**

No prerequisites.

**Ciljevi izučavanja predmeta:**

Studenti se upoznaju sa najznačajnijim prostorno-funkcionalnim, oblikovnim karakteristikama i metodama u organizaciji projektovanja zdravstvenih objekata.

**Course aims:**

Students are introduced to most important of spatial – functional, and shape properties and methods in the organization and design for buildings for medical care.

**Predmetni nastavnik – saradnici u nastavi /  
Lecturer – teaching assistants**

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AF \_ 2 saradnika

**Metode nastave i savladavanje gradiva:**

Predavanja, vježbe, konsultacije, studijske stručne ekskurzije, studentske radionice. Na predavanjima studenti se upoznaju sa zdravstvenim objektima i njihovim značajem, vrstama i tipologijom zdravstvenih objekata kao i prostorno – funkcionalnim karakteristikama organizacije prostora zdravstvenih objekata. Na vježbama u toku semestra studenti izrađuju jedan idejni projekat nekog zdravstvenog objekta.

**Teaching methods and learning activities:**

Lectures, exercises, consultations, study tours and professional student workshops. During lectures students are introduced to buildings for medical care and their importance, types and typology of buildings for medical care, as well as spatial - functional characteristics of buildings for medical care. During practical classes in the course of semester, students prepare a preliminary design of a building for medical care.

**SADRŽAJ PREDMETA:**

Pripremna nedjelja	<i>Priprema i upis semestra.</i>
I nedjelja	Uvod, sadržaj, metodologija, klasifikacija ... Istorijski razvoj zdravstva.
II nedjelja	Planiranje mreže, lokacije, programski zadaci za projektovanje i izgradnju zdravstvenih objekata.
III nedjelja	Preventivna zdravstvena zaštita – Dom zdravlja. Funkcija, program, službe, mreža, lokacija.
IV nedjelja	Bolničko liječenje. Bolnice - vrste, kapaciteti, funkcija, mreže, lokacije, struktura, organizacija.
V nedjelja	KOLOKVIJUM I
VI nedjelja	Bolnica - savremeni koncept izgradnje, urbanizam, sistem izgradnje, dimenzije, fleksibilnost.
VII nedjelja	Organizacija i funkcionisanje bolnice.
VIII nedjelja	Poliklinika i urgentna medicina.

**SUBJECT CONTENT:**

Preliminary week	Preparation and enrollment of semester.
1 <sup>st</sup> week	Introduction, contents, methodologies, classifications ... Historical development of building for medical care.
2 <sup>nd</sup> week	Network planning, locations, program tasks for the design and construction of buildings for medical care.
3 <sup>rd</sup> week	Preventive medical care - Medical Center. Function, program, service, network, location.
4 <sup>th</sup> week	Hospitalization. Hospitals - type, capacity, function, network, locations, structure, organization.
5 <sup>th</sup> week	1 <sup>st</sup> TEST (colloquium)
6 <sup>th</sup> week	Hospital - the modern concept of construction, urban planning, system construction, dimensions, flexibility.
7 <sup>th</sup> week	The organization and functioning of the hospital.
8 <sup>th</sup> week	Polyclinic and Medical Emergency.

IX nedjelja	Područje njege – Stacionarni dio bolnice i prijemna služba.
X nedjelja	Područje terapije – medicinske jedinice liječenja i prateće medicinske službe.
XI nedjelja	Administrativni i ekonomski dio bolnice. Tehnički i tehnološki blok i instalacije. Saobraćaj.
XII nedjelja	Rehabilitacioni centri, savremeni koncept izgradnje.
XIII nedjelja	Starački domovi, funkcija, mreže, lokacija, struktura, organizacija.
XIV nedjelja	KOLOKVIJUM II
XV nedjelja	Završni ispit.
XVI nedjelja	Ovjera semestra i upis ocjena.
XVII nedjelja	Dopunska nastava i popravni ispitni rok.
XVIII-XXI nedjelja	

9 <sup>th</sup> week	Maintenance area - stationary part of the hospital and admissions service.
10 <sup>th</sup> week	The area of treatment - medical treatment unit and ancillary medical services.
11 <sup>th</sup> week	Administrative and economic part of the hospital. Technical and technological block and installation. Traffic.
12 <sup>th</sup> week	Rehabilitation centers, modern building concept.
13 <sup>th</sup> week	Retirement homes, function, network, location, structure, organization.
14 <sup>th</sup> week	2 <sup>nd</sup> TEST (colloquium)
15 <sup>th</sup> week	FINAL EXAM - Submission of preliminary design
16 <sup>th</sup> week	Verification of the semester and mark enrollment.
17 <sup>th</sup> week	
18 <sup>th</sup> -21 <sup>st</sup> week	Additional lessons and exam term.

### Opterećenje studenata:

<b><u>Nedjeljno</u></b>
<b>9.0 kredita x 40/30 = 12 sati</b>
<b>Struktura:</b> 3 sata predavanja 4 sata računskih vježbi 5 sato samostalnog rada, uključujući konsultacije
<b><u>U toku semestra</u></b>
<b>Nastava i završni ispit:</b> (12 sati) x 16 = <b>192 sata</b>
<b>Neophodne pripreme</b> prije početka semestra (administracija, upis, ovjera) 2 x (12 sati) = <b>24 sata</b>
<b>Ukupno opterećenje za predmet:</b> 9.0x30 = <b>270 sati</b>
<b>Dopunski rad:</b> 54 sata
<b>Struktura opterećenja:</b> 192 sata (Nastava) + 24 sata (Priprema) + 54 sata (Dopunski rad) = 270 sati

### Student workload:

<b><u>Weekly</u></b>
<b>9.0 credits x 40/30 = 12 hours</b>
<b>Structure:</b> 3 hours of lectures 4 hour for tutorial 5 hours of individual work, including consultations
<b><u>During the semester</u></b>
<b>Teaching and the final exam:</b> (12 hours) x 16 = <b>192 hours</b>
<b>Necessary preparations</b> before the start of the semester (administration, registration, certification) 2 x (12 hours) = <b>24 hours</b>
<b>Total hours for the course:</b> 9.0x30 = <b>270 hours</b>
<b>Additional hours:</b> 54 hours
<b>Structure of workload:</b> 192 h (lectures) + 24 h (preparation) + 54 h (add. hours) = 270 h

### Literatura / Literature:

<ul style="list-style-type: none"> <li>- S. Kliska, <i>Bolnice</i>, Beograd 1961.</li> <li>- V. Stojaković, <i>Zdravstvene zgrade</i></li> <li>- D.Juračić, <i>Zdravstvene zgrade</i></li> <li>- <i>Tehničar građevinski, priručnik 4</i>, Beograd 1989.</li> <li>- Ernest Nofjert, <i>Arhitektonsko projektovanje</i>, Bolnice 1996.</li> <li>- R. Gerić, <i>Savremena bolnica</i>, Beograd, 1964.</li> <li>- D. Balzaro, <i>Bolnice</i>, Beograd 1997.</li> <li>- R.Božović – Stamenović, <i>O prostorima lečenja-centri dnevne nege</i>, Bgd.1997.god.</li> <li>- <i>A Portfolio of architecture for health</i>. Chicago: American Hospital Association,1977.god.</li> <li>- M.Noor, <i>Health care architecture in the Netherlands</i>. Rotterdam: NAI 2010.</li> <li>- Verderber S., Fine D. <i>Healthcare Architecture in an Era of Radical Transformation</i>. Yale University Press</li> <li>- Del Nord R. <i>The Culture for the Future of Healthcare Architecture</i>. Firenze: Alinea editrice 2009.</li> <li>- Wang, Mei-Ling.Lanham, <i>Global health and sustainable development architecture : inclusive dialogue, partnerships, and community capital</i>. Lanham: University Press of America 2009.</li> <li>- Imperfect Health: The Medicalization of Architecture, CCA Montreal</li> </ul>
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### Oblici provjere znanja i ocjenjivanje:

* Položena oba kolokvijuma i pozitivno ocjenjen sintezni projekat.
- Uredno pohađanje nastave : ukupno 10 poena (svaki izostanak manje 1 poen), maksimalno 3 izostanka
- I kolokvijum : maksimum 20 poena
- II kolokvijum : maksimum 20 poena
- Završni ispit : maksimum 50 poena

### Forms of Assessment:

* Student has to pass both tests and positively evaluated synthesis project.
- Regular attendance of classes: 10 points (each one less cause failure point), maximum 3 absences
- First test: maximum 20 points
- Second test: maximum 20 points
- Final exam: maximum 50 points

### Očekivani ishodi učenja:

Očekuje se da student, nakon položenog ispita Arhitektonsko projektovanje 5:
1. Posjeduje sposobnost da izradi i predstavi projekte objekata odgovarajuće tipologije – zdravstveni objekti, različite razmjere i složenosti;
2. Posjeduje znanje o kontekstualnosti, tj uklapanju objekta u postojeći lokalni, socijalni i fizički, kontekst;
3. Posjeduje adekvatno znanje potrebno za kritičku valorizaciju

### Expected learning outcomes:

It is expected that the student after passing the exam Buildings for medical care:
1. Has the knowledge necessary to create and present projects of appropriate typology - Buildings for medical care (health facilities), different proportions and complexity;
2. Has the knowledge of contexts, ie integration of the facility into the existing local, social and physical context;
3. Has the knowledge needed for critical evaluation of

arhitektonskih projekata odgovarajuće tipologije, sa estetskog, tehničkog aspekta i aspekta potreba korisnika;  
4. Poznaje istorijski razvoj odgovarajuće tipologije arhitektonskih objekata, pripadajuće teorijske koncepte, kao i savremene tendencije.

**Metode za ocjenu kvaliteta i obezbjeđivanje željenih rezultata učenja:**

Kontrola od strane Univerziteta, kontrola nastavnog procesa od strane Fakulteta, spisak prisustva studenata, analize stepena prolaznosti (sistem upravljanja kvalitetom u skladu sa ISO 9001).

**Napomena:**

Dodatne informacije o predmetu mogu se dobiti kod predmetnog nastavnika i kod prodekana za nastavu.

architectural designs appropriate typologies, from the aesthetic, technical aspects and aspects of user needs;  
4. Knows the historical development of the corresponding typology of architectural objects, corresponding theoretical concepts, as well as modern tendencies.

**Methods for assessing the quality and ensuring preferred learning outcomes:**

Control by the University, the control of the teaching process by the faculty, the list of presence of students, analysis of the degree of transience (quality management system in accordance with ISO 9001).

**Admonishment:**

Further information about the subject can be obtained from the course teacher and Vice Dean for Education.