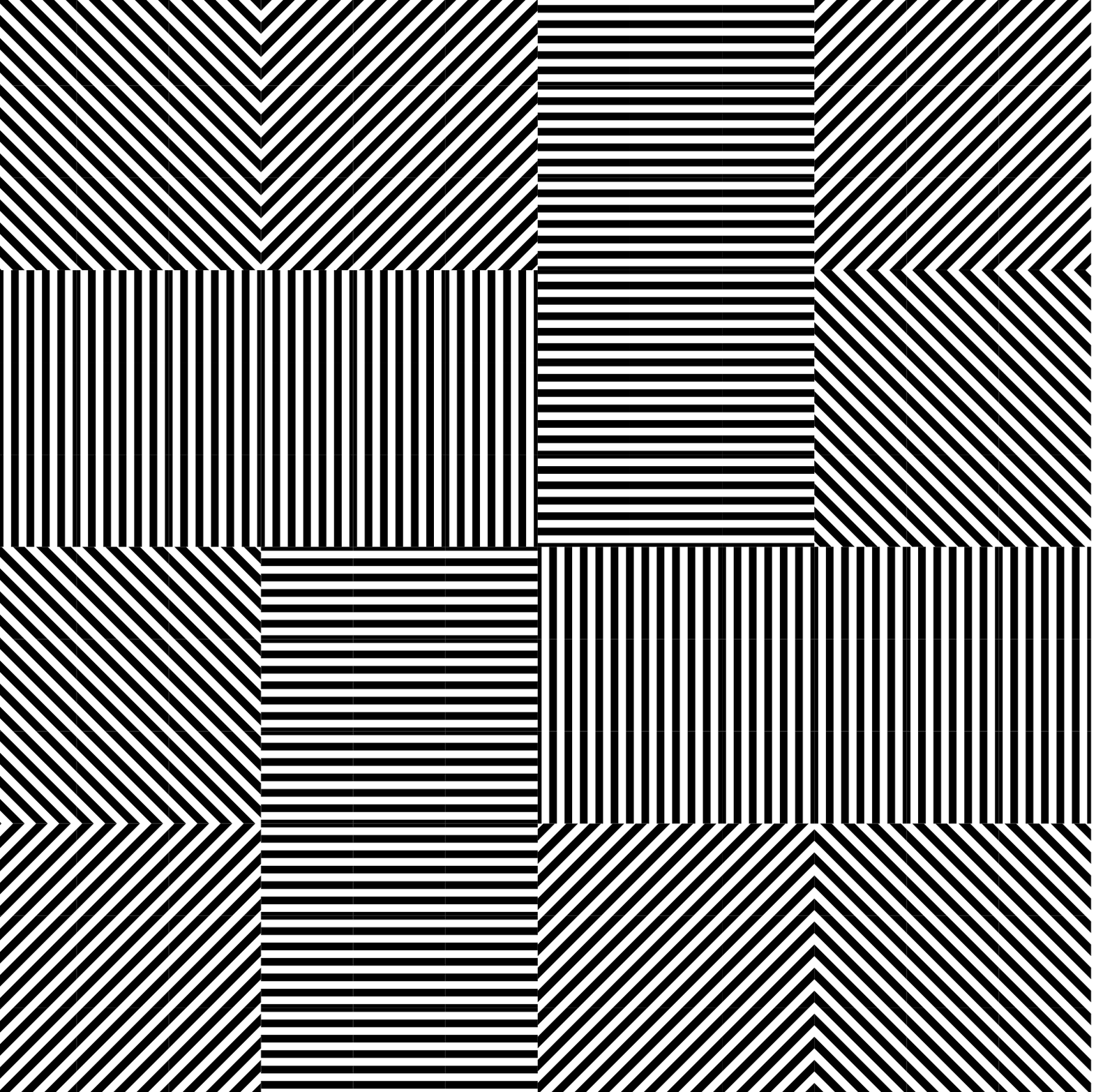

SECOND–CYCLE SINGLE MASTER STUDY PROGRAMME ARCHITECTURE

ENOVITI MAGISTRSKI ŠTUDIJSKI PROGRAM DRUGE STOPNJE ARHITEKTURA

Changed in 2022

UNIVERSITY OF LJUBLJANA
Faculty of Architecture

2024–2025

SECOND–CYCLE
SINGLE MASTER
STUDY PROGRAMME
ARCHITECTURE

ENOVITI MAGISTRSKI
ŠTUDIJSKI PROGRAM
DRUGE STOPNJE
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UNIVERSITY OF LJUBLJANA
FACULTY OF ARCHITECTURE LJUBLJANA, 2023

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UNIVERSITY OF LJUBLJANA FACULTY OF ARCHITECTURE

O fakulteti

"Architectural and urban planning have a major impact on the quality of our lives; they can create a cohesive, inclusive and welcoming environment or, a provocatively disruptive one. At a time when there are crucial social and environmental issues in need of systemic change, critical planning can contribute key insights and suggestions for solutions to these pressing issues.

The University of Ljubljana Faculty of Architecture is fully aware of its place within the currency of the global milieu. Our mission is to teach and educate future architects, urban planners and urban designers, and to conduct artistic and scientific research in architecture. The UL Faculty of Architecture is developing an academic and open study environment connected to contemporary architectural, artistic and urban culture at home and abroad that both creates and disseminates knowledge about architecture, urbanism and the manifold roles of the architect in society."

Prof. dr. Mihael Dešman, dean

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Department of Architectural Technology
Department of Design and Presentations
Department of History, Theory, and Renewal
Institute of Architecture and Spatial Planning

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SECOND–CYCLE
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ŠTUDIJSKI PROGRAM
DRUGE STOPNJE
ARHITEKTURA

Changed in 2022

Presentation of the Study Programme
2024–2025

1 INFORMATION ABOUT THE STUDY PROGRAMME

The Single-Cycle MASTER Study Programme Architecture takes 5 years (10 semesters) and amounts to 300 credit points.

The study programme includes elective modules A and B.

The professional title bestowed on the graduate:

– magister inženir arhitekture (Master Engineer in Architecture) – for male holders; or
– magistrica inženirka arhitekture (Master Engineer in aArchitecture) – for female holders;
– abbreviation: mag. inž. arh.

Study programme	Single-Cycle MASTER Study Programme Architecture
KLASIUS–SRV	MASTER education (second Bologna cycle)/ Master (second Bologna cycle) (17003)
ISCED	Architecture, Urbanism, and Civil Engineering (58)
KLASIUS–P	Architecture and Urbanism (not specified in detail) (5810)
Frascati	Technical sciences (2)
SQF level	8
EQF level	7
EHEQF level	Second cycle
Duration in years	5
ECTS per year	60
Number of ECTS	300

2 INTERNATIONAL COMPARABILITY OF THE STUDY PROGRAMME

All compared foreign programmes are appropriately accredited or recognized in the countries where they are provided.

1 Technische Universität Graz TU Graz. Fakultät für Architektur. Graz, Austria.
www.tugraz.at

2 Universitat Politècnica de Catalunya. BarcelonaTech UPC. Escola Tècnica Superior d'Arquitectura de Barcelona ETSAB. Barcelona, Spain.
www.etsab.upc.edu

3 Leibniz Universität Hannover. Fakultät für Architektur und Landschaft. Hannover, Germany.
www.archland.uni-hannover.de

1 Tehnische Universität Graz (TU Graz)
Faculty of Architecture

Architecture forms an arch between art and technology. Architectural design consists of identifying, defining, and reflecting on complex problems of living space and refers to the creation, change, and preservation of a safe and aesthetically appealing liveable environment. Due to project-oriented teachingthe study programmes at the Faculty of Architecture have a generalist character and promote a holistic way of working and thinking, the university teachers, some of whom come from all around the world, have a wealth of practical experience. Graduates of the Faculty of Architecture in Graz have gained a good reputation on the national and international level due to their ability to think in a critical and innovative way and their professional competence, which extends beyond the traditional fields of activity.

2 Universitat Politècnica de Catalunya (UPC)
Barcelona School of Architecture (ETSAB)

Founded in 1875, the ETSAB has trained thousands of students in the areas of architectural design, urban planning, and building construction. Its teaching staff includes prestigious academics and renowned professionals who have made a major contribution to Barcelona's current fame in the field of architecture. The School has a worldwide reputation and receives many applications for admission from foreign students.

3 BASIC PROGRAMME GOALS AND GENERAL COMPETENCE

The aim of the programme is to educate future architects – generalists. The basic goal is to train experts for responsible tasks regarding architectural design and planning, as well as spatial management. Architects are responsible for the significance of architectural design, building quality, their harmony with the environment, and respect for natural and urban landscapes, of public interest. Regarding the quality of physical environment, public interest is safeguarded by Slovenian and European legislation. Slovenian legislation stipulates conditions for architects – designers, reviewers of planned spatial developments, spatial planners, accountable managers of proposals of spatial documents, municipal urbanists, researchers, etc., whereas European legislation determines the minimum qualification criteria for automatic recognition of professional qualifications across all European countries. The profile of an architect is highly complex since it requires the ability of thinking about people and their spatial problems on various levels – from the regional planning scale to the architectural detail, and vice versa. It has to stem from contemporary theoretical and technological findings, supersede them and strive for a balance between functional, technical, and artistic components of architectural creativity. The educational profile of architects combines technical sciences, social sciences, and humanities into the capability for managing and designing space or buildings. The results of architectural creativity can be socially recognized as works of art.

Degree in Architecture students acquire a solid technical and legal specialization that allows them to work in the design and management of building construction and restoration projects, as well as in the fields of urban and spatial planning. Other career prospects include those related to landscaping and the environment; land and property management; interior, furniture, and object design; exhibition and set design; health and safety projects; and graphic design.

3 Leibniz Universität Hannover

Faculty of Architecture and Landscape Sciences

Engineer, artist, historian or sociologist? Good architects and landscape architects are a bit of everything. But at the heart of the matter are human beings and their built environment. For this reason, the faculty focuses on urban planning and cultural landscape aspects in design and planning. Leibniz Universitat Hannover is the only university in the Northern Germany offering training and research in landscape architecture and environmental planning.

Study Guide Architecture:

An Architect Does More than Build Houses.

An architect plays a role in town and landscape design, and is a historian and a trend analyst rolled into one. If you want to study architecture, you should have an inquisitive mind and plenty of staying power, enjoy designing, and have good spatial powers of imagination. Studies are based on professional practice, i.e. planning, construction, and renovation of buildings, settlements, and towns. Other areas of architecture such as history, creative design, and the latest computer methods are also covered.

- **General Competences**
  - Capability for analysis, synthesis, solution proposal, and anticipation of impacts
  - Mastering of research methods, procedures, and processes, development of critical and self-critical reflection
  - Capability for practical use of knowledge
  - Development of communication capacities and skills, especially visual communication
  - Ethical reflection and dedication to professional ethics
  - Cooperativeness, teamwork, and ability to work in the international environment

4 REQUIREMENTS FOR ENROLMENT AND SELECTION CRITERIA FOR LIMITED ENROLMENT

- **The Long-Cycle MASTER Study Programme in Architecture can be entered by**

a whoever graduated and was granted a high-school diploma;
b whoever completed a vocational school and was granted a diploma in any high-school programme and exam within the diploma subjects of mathematics and foreign language, if mathematics was part of the vocational diploma;
c whoever completed any four-year high-school programme before June 1st, 1995.

All candidates have to undertake an entrance exam confirming their capability to study architecture.

- **When decisions about limited enrolment are taken**

(if more candidates provide proof of adequate high school qualifications needed for study of architecture than there are enrolment places), candidates are selected by the following criteria:

– general achievement in the general matura or, alternatively, in the final examination or the vocational matura, 12.5% points;
– general achievement in years 3 and 4, 12.5% points;
– achievement in examination of the ability to study architecture, 75% points;
– examination of artistic and spatial talent, 37.5% points;
– interview with the candidate, 37.5% points.

- **Capability Test**

The capability test for enrolment in the study programme Architecture assesses: sense for artistic perception and expression, spatial perception and expression, and architectural issues.

- **Part-time Study**

Part-time study candidates have to meet all of the aforementioned enrolment conditions. The entrance fee is determined according to the valid price list.

5 CRITERIA FOR ACKNOWLEDGMENT OF KNOWLEDGE AND SKILLS GAINED PRIOR TO ENROLMENT IN THE PROGRAMME

At the request of the candidate, the Academic Affairs Commission submits a proposal to the Senate for recognizing the knowledge and skills that the candidate gained prior to their enrolment in the programme, and can be recognized in the study programme in Architecture. For example, in the case of a completed Foreign Language course, the course is recognized as one of the elective courses of group “B” (B6).

6 CONDITIONS FOR PROGRESSING IN THE PROGRAMME

- **Conditions for Progressing from Year to Year**

To progress from Year 1 to Year 2, the student is required to pass courses Design Studio 1, Architectural Design 1, Materials and Forms, and earn a minimum of 48 credits from Year 1.

To progress from Year 2 to Year 3, the student is required to pass all Year 1 examinations, courses Design Studio 2, Architectural Design 2, and earn a minimum of 48 credits from Year 2.

To progress from Year 3 to Year 4, the student is required to pass all Year 1 and Year 2 examinations, courses Design Studio 3, Architectural Design 3, and earn a minimum of 48 credits from Year 3.

To progress from Year 4 to Year 5, the student is required to pass all Year 1, Year 2, and Year 3 examinations, courses Design Studio 4, Architectural Design 4, and earn a minimum of 48 credits from Year 4.

7 CONDITIONS FOR STUDY COMPLETION

Study completion implies that the student has completed all required tasks in all enrolled subjects, prepared a final work, and defended it successfully.

8 TRANSFERRING BETWEEN STUDY PROGRAMMES

- **Conditions for transferring between programmes**

  The term transferring means that the student ceases to study in the study programme they originally enrolled in, and continues the education in the Long-Cycle MASTER Study Programme in Architecture, where all or part of study obligations from the student's original (first) study programme are recognized as completed obligations (Criteria for Transferring Between Study Programmes (Official Gazette of the RS, No. 95/2010, amendments Official Gazette of the RS, No. 17/2011). In the European higher education area, programmatic diversity is obvious, while the responsibility in dealing with space has become the common goal of all countries. In spatial management and design, architecture is the only regulated profession, hence any transferring from other programmes to architecture, rather than vice versa, is subject to strict verification. The conditions for transferring are a constituent part of such programmes.

- **Transferring between study programmes leading to a university degree**

  In the academic year 2007/2008, the Long-Cycle MASTER Study Programme in Architecture was introduced in line with the European directive on regulated professions. The graduates who were awarded the title "univerzitetni diplomirani inženir arhitekture" prior to the introduction of the new programme, may, under certain conditions, upgrade their studies, and are thus awarded a diploma compliant with the Directive 2005/36/EC.

- **The transfer is approved by the Academic Affairs Committee**

  The conditions for transferring between the old and the new programmes are also taken into account in the case of completed studies. By passing the bridging exams, the university graduate engineers in architecture obtain the professional title "magister inženir arhitekture".

- **Transferring between study programmes**

  For the purpose of transfer, the faculty can issue the necessary certificates on completed obligations. The criteria are determined by the particular institution to which the student wishes to transfer.

9 EVALUATION METHOD

Knowledge is evaluated through oral and written examination. Assessment of knowledge in professional subjects is predominantly through drawings – designs; the oral exam can be defence of a graphic presentation; the written exam can also be the preparation of such a presentation. The grades for most subjects, i.e. those that are conducted as lectures and Tutorials, consist of two parts: the grade for the (theoretical) exam and graded Tutorials, the latter varying from subject to subject.

In line with University of Ljubljana's Statute, the following grading scale and grades are used:

10 91–100%: excellent: outstanding performance with minor errors,
9 81–90%: very good – above-average knowledge, but with some errors,
8 71–80%: good – solid results,
7 61–70%: satisfactory – fair knowledge but with significant shortcomings,
6 51–60%: sufficient – knowledge meets minimum criteria,
5 50% and less: unsatisfactory – knowledge does not meet minimum criteria.

The candidate successfully passes the exam if the grade they receive is in the satisfactory (6) to excellent (10) range.

Year 1, 1st semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
1.2	Basics of Statics	prof. dr. Vojko Kilar	30		30		90	150	5
1.3	Representation Techniques	izr. prof. Jaka Bonča doc. dr. Špela Hudnik doc. dr. Or Ettlinger	15		45	30	60	150	5
1.4	Descriptive Geometry	doc. dr. Domen Kušar	30		30		90	150	5
1.5	Architectural Design 1	prof. Maruša Zorec prof. mag. Tadej Glažar	15		30	15	90	150	5
1.6	Introduction to History of Architecture and Arts	doc. dr. Nika Grabar doc. dr. Miloš Kosec	30	30			90	150	5
1.7	Mathematics	izr. prof. dr. Jaka Smrekar	30		30		90	**150**	5
		Total	150	30	165	45	510	**900**	30
		Percentage %	17	3	18	5	57	**100**	

Year 1, 2nd semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
1.8	Basics of Build Physics and Technology	prof. dr. Martina Zbašnik Senegačnik prof. dr. Sašo Medved	30		30		90	150	5
1.9	Architectural Drawing and Model	doc. Uroš Rustja doc. Paul O. Robinson	15		60		75	150	5
1.10	Materials and Forms	doc. Rok Žnidaršič	30		30		90	150	5
1.11	Space and Context	doc. Mojca Gregorski	30	30			90	150	5
1.12	Study Practice 1	doc. dr. Tomaž Slak		30			30	60	2
1.1	Design Studio 1	**			60	30	150	240	8
		Total	105	60	180	30	525	**900**	30
		Percentage %	12	7	20	3	58	**100**	

Year 2, 1st semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
2.2	Construction and Technology 1	doc. dr. Tomaž Slak	30		30		90	150	5
2.3	Freehand Drawing	doc. Leon Belušič	15		45		30	90	3
2.4	Architectural Design 2	doc. Mitja Zorc	15		30	15	90	150	5
2.5	Sociology of Space	prof. dr. Marjan Hočevar	30				60	90	3
2.6	History and Theory of Architecture 1	prof. ddr. Petra Čeferin	30		30		90	150	5
2.1	Design Studio 2	**			60	60	150	270	9
		Total	120		195	75	510	**900**	30
		Percentage %	13		21	8	57	**100**	

Year 2, 2nd semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
2.7	Loadbearing Structures 1	doc. dr. Simon Petrovčič prof. dr. Vojko Kilar	30		30		90	150	5
2.8	Introduction to Art Theory	izr. prof. Jaka Bonča	15		30	15	90	150	5
2.9	Residential Architecture	prof. mag. Anja Planišček	30	30			30	90	3
2.10	Introduction to Urbanism	prof. dr. Tadeja Zupančič doc. dr. Matevž Juvančič	30		30		90	150	5
2.11	Architectural Workshop 1	**				30	30	60	2
2.1	Design Studio 2	**			60	60	180	300	10
		Total	105	30	150	105	510	**900**	30
		Percentage %	12	3	17	12	57	**100**	

Year 3, 1st semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
3.2	Construction and Technology 2	prof. dr. Matej Blenkuš	30		30		90	150	5
3.3	Artistic Elements of Architecture	izr. prof. dr. Tomaž Novljan	15		30		45	90	3
3.4	Architectural Design 3	prof. mag. Tomaž Krušec	15		30	15	90	150	5
3.5	Building and Planning Legislature	prof. dr. Tadeja Zupančič	30	15			45	90	3
3.6	History and Theory of Architecture 2	prof. Mihael Dešman	30	30			90	150	5
3.1	Design Studio 3	****			60	60	150	270	9
		Total	120	45	150	75	510	**900**	30
		Percentage %	13	5	17	8	57	**100**	

Year 3, 2nd semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
3.7	Loadbearing Structures 2	prof. dr. Vojko Kilar doc. dr. David Koren	30		30		90	150	5
3.8	Interior Design	prof. Jurij Sadar	15		30	15	90	150	5
3.9	Public Architecture	prof. mag. Tadej Glažar	30	15			45	90	3
3.10	Urban Design	izr. prof. mag. Polona Filipič Gorenšek	15		30	15	90	150	5
3.11	Renovationa and Conservation in Architecture 1	izr. prof. dr. Sonja Ifko izr. prof. dr. Ljubo Lah	15	30			75	120	4
3.12	Architectural Workshop 2	**				30	30	60	2
3.1	Design Studio 3	****			60	30	90	180	6
		Total	105	45	150	90	510	**900**	30
		Percentage %	12	5	17	10	57	**100**	

Year 4, 1st semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
4.2	Detail in Architecture	prof. dr. Martina Zbašnik Senegačnik	30		30		60	120	4
4.3	Organization and Management of Construction	doc. dr. Simon Petrovčič doc. dr. David Koren doc. dr. Tomaž Slak	15	30			45	90	3
4.4	Architectural Design 4	prof. mag. Vasa J. Perović	15		30	15	90	150	5
4.5	Development of Urbanism	izr. prof. dr. Lucija Ažman Momirski	15		15		60	90	3
4.6	History and Theory of Architecture 3	doc. dr. Miloš Kosec	30	30			90	150	5
4.7	Elective Subject A	****	15		15		60	90	3
4.1	Design Studio 4	**			60	30	120	210	7
		Total	120	60	150	45	525	900	30
		Percentage %	13	7	17	5	58	100	

Year 4, 2nd semester

Subj. no.	Subject	Lecturer	Contact hours: Llectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
4.8	Installation Systems	prof. dr. Sašo Medved	30		15		45	90	3
4.9	Management and General Safety	doc. dr. Domen Kušar doc. dr. Domen Zupančič	15	30			45	90	3
4.10	Sustainable Architecture	prof. dr. Martina Zbašnik Senegačnik prof. dr. Matej Blenkuš prof. mag. Tomaž Krušec	30	15			45	90	3
4.11	Urban Planning	izr. prof. dr. Ilka Čerpes	15		30	15	90	150	5
4.12	Renovationa and Conservation in Architecture 2	prof. Maruša Zorec	15		30		75	120	4
4.13	Study Practice 2	doc. Rok Žnidaršič prof. mag. Anja Planišček		30			30	60	2
4.14	Architectural Workshop 3	**				30	30	60	2
4.1	Design Studio 4	**			45	45	150	240	8
		Total	105	75	120	90	510	900	30
		Percentage %	12	8	13	10	57	100	

Year 5, 1st semester

Subj. no.	Subject	Lecturer	Contact hours: Lectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
5.2	**Elective Subject A**	****	15		15		60	90	3
5.3	**Elective Subject A**	****	15		15		60	90	3
5.4	**Elective Subject B**	****	15		15		60	90	3
5.5	**Elective Subject B**	****	15		15		60	90	3
5.6	**Elective Subject B**	****	15		15		60	90	3
5.1	**Design Studio 5**	**			60	105	285	450	15
		Total	75		135	105	585	**900**	
		Percentage %	8		15	12	65	**100**	

Year 5, 2nd semester

Subj. no.	Subject	Lecturer	Contact hours: Lectures	Seminar	Tutorials	Other for. of study	Indep. work of student	Total hours	ects
5.7	**Master Degree**	**				345	555	900	30
		Total				345	555	**900**	30
		Percentage %				38	62	**100**	

* ID – in line with the adopted accredited programme Long-Cycle MASTER Study Programme in Architecture, UL FA offers Independent Work to the extent provided in the tables.

** **In the first year students are assigned mentors by the Academic Affairs Committee. From year 2 onward, the student is free to choose their mentor. The list of mentors is approved by the Academic Affairs Committee. Lecturers of Design Studio 1–5, Architectural Workshop 1–3, and diploma supervisors are all architects that also teach one of the other subjects and can provide adequate professional references.**

*** **Study Practice: 1. at a construction site; 2. in an architectural (design) office.**

**** In years 3, 4, and 5, the student selects a subject each from group “A”, in years 4 and 5 the student selects a subject each from group “B”. A minimum of 5 signed-up students is required to run a course.

A Elective subjecti skupine »A«

A1

1 Residential Buildings	prof. mag. Anja Planišček
2 Public Buildings	prof. mag. Tadej Glažar
3 Industrial Buildings	izr. prof. dr. Sonja Ifko
4 Recreational Buildings	doc. dr. Domen Zupančič
5 Sacral Buildings	doc. dr. Leon Debevec
6 Interior Design	izr. prof. mag. Aleš Prinčič

A2

1 20th Century Slovene Architecture	doc. dr. Nataša Koselj
2 Architectural Theory and Critique	prof. ddr. Petra Čeferin
3 Architectural Anthropology	...
4 Architectural Analogies	izr. prof. dr. Lucija Ažman Momirski
5 Introduction to Research in Architecture and Urbanism	prof. dr. Tadeja Zupančič, izr. prof. dr. Ljubo Lah
6 Ecological Building Principles	prof. dr. Martina Zbašnik Senegačnik
7 Analysis of Contemporary Architecture	prof. ddr. Petra Čeferin
8 Heritage Interpretation	izr. prof. dr. Sonja Ifko

A3

1 Theory of Physical and Regional Planning	...
2 Communal and Housing Economy	izr. prof. dr. Maruška Šubic Kovač
3 Land Policy and Property Evaluation	izr. prof. dr. Maruška Šubic Kovač
4 Rurism and Rural Architecture	prof. dr. Alenka Fikfak, doc. dr. Janez Peter Grom
5 Action Planning and Strategic Assessment	izr. prof. dr. Lucija Ažman Momirski
6 Urban Brownfields	doc. dr. Primož Hočevar

B Elective subjecti skupine »B«

B1

1 Vernacular Architecture	doc. dr. Domen Zupančič
2 Design of Objects	doc. Leon Belušič
3 Design Concepts	izr. prof. Jaka Bonča
4 Light in Architecture	izr. prof. dr. Tomaž Novljan
5 Design of Green Surfaces	prof. dr. Davorin Gazvoda
6 Settlement Culture	doc. Aleksander Ostan
7 Space and Recreation	prof. dr. Alenka Fikfak
8 Parametric Design and GIS in Achitecture	izr. prof. dr. Lucija Ažman Momirski

B2

1 Art History	...
2 Spatial Idiomatics	prof. Maruša Zorec
3 Elements of Classical Composition	doc. dr. Leon Debevec
4 Environmental Psychology	prof. dr. Matija Svetina
5 Theory of Architectural Design	...
6 Measurement Standardisation	...
7 Artistic Expression	...
8 Creative Design	doc. Primož Jeza
9 History and Theory of Architecture 4	doc. dr. Nika Grabar
10 On the Nature of Materials: History, Theory, and Transformation	doc. Paul O. Robinson

B3

1 Comprehensive Preservation of Built Heritage	prof. Maruša Zorec
2 Renewal and Adaptation	prof. Maruša Zorec
3 Integral Renewal	izr. prof. dr. Ljubo Lah
4 Preservation of Contemporary Architectural Heritage	izr. prof. dr. Sonja Ifko
5 Architecture and Archeology	izr. prof. dr. Lucija Ažman Momirski

B4

1 Graphics for Architects	izr. prof. Boštjan Botas Kenda
2 Space and Media	doc. dr. Matevž Juvančič
3 Computer Supported Architecture	prof. dr. Žiga Turk
4 Architecture of Virtual Space	doc. dr. Or Ettlinger
5 Freehand Drawing	doc. Leon Belušič
6 Approaches to Creativity	doc. dr. Or Ettlinger
7 Digital Modelling and Production	doc. dr. Tomaž Slak
8 Basics of Computer Programming	doc. dr. Simon Petrovčič

B5

1 Building Prefabrication	doc. dr. Domen Kušar
2 Concepts of Structures	prof. dr. Vojko Kilar
3 Structural Systems	doc. dr. Lara Slivnik
4 Structures of Industrial Buildings	prof. dr. Matej Blenkuš
5 The Detail in Architectural Composition	prof. Jurij Sadar
6 The Detail in the Interior	...
7 Spatial Acoustics	...
8 Energy and Ecological Assessment of Buildings	prof. dr. Sašo Medved
9 Modelling of Façade Envelope	prof. dr. Martina Zbašnik Senegačnik

B6

Subjects hosted by other faculties of the University of Ljubljana approved by UL FA's Academic Affairs Commission, subject to the consent of the hosting faculty.

10 SUMMARY OF ELECTIVE SUBJECTS AND MOBILITY

Relation between mandatory and elective subjects:

Mandatory subjects	80,6 %	**Elective subjects**	19,4 %
	242 ects		58 ects
Subjects with mandatory content All subjects not specifically stated in this table	178 ects	**Subjects with elective content** The student selects the lecturer 1.12 Study Practice 1 2.11 Architectural Workshop 1 3.12 Architectural Workshop 2 4.14 Architectural Workshop 3 4.13 Study Practice 2 Master Degree	40 ects 2 ects 2 ects 2 ects 2 ects 30 ects
Subjects with required content The student selects the lecturer 2.1 Design Studio 2 3.1 Design Studio 3 4.1 Design Studio 4 5.1 Design Studio 5	64 ects 19 ects 15 ects 15 ects 15 ects	**Elective subjects group A** The student selects subjects from any of group A modules	9 ects
		Elective subjects group B The student selects subjects from any of group modules. *If a subject from module B6 is selected, it has to be approved by the Academic Affairs Committee, subject to the consent of the hosting faculty.*	9 ects

Mobility: The student can apply for a half- or full-year placement abroad as part of the Erasmus+ programme from – and including – the third year onwards.

11 BRIEF PRESENTATION OF COURSES

1.1 Design Studio 1 — 8 ect

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Smaller building of given height; simple programme, methodological approach; simple wooden, brick, concrete, and stone construction; programme implementation with regard to location; construction design, choice of building constructions; description of design concept, freehand presentation, constructed perspective, technical drawing, model; public presentation.

1.2 Basics of statics — 5 ects

prof. dr. Vojko Kilar

Balance conditions; geometrical characteristics of cross-sections; forces and their effects (reactions, inner forces, tensions and deformations) on simple linear static models (rods, bending beams, foundations, trusses, frames and arches); basic stress states (tension, compression [buckling], shear, bending and torsion); choice of load-bearing elements dimensions; tests of construction models.

1.3 Representation Techniques — 5 ects

izr. prof. Jaka Bonča, doc. dr. Špela Hudnik, doc. dr. Or Ettlinger

Analogue and digital planning tools. Pencils, rulers, set squares, compasses, bit graphics, vector graphics, CAD, modellers, digital tools for building simulation. Body in orthographic projection and in 3D view. Relationship between top projection, views, and cross-sections. “Drawing” of walls, pillars, beams, etc. Body in spatial projection. Technical drawing and page layout.

1.4 Descriptive Geometry — 5 ects

doc. dr. Domen Kušar

Axiomatics; projection; Monge’s projection; isometric projection; axonometrics; central projection; affinity and collineation; spatial surfaces and curves; intersections, cross-sections, and plane sections; rotation and side view; lines, equidistant lines, slope lines, normals; basic positional tasks; basic metric tasks; rotational bodies; shadows.

1.5 Architectural Design 1 — 5 ects

prof. Maruša Zorec, prof. mag. Tadej Glažar

Basics of architectural design. Architecture as idea, theory, and materialization. Properties of spaces and buildings: dimension, shape, size, position. Human beings as standard and criterion. Nature and architecture; abstraction, context, and concept. Elements of architecture, composition, light, and structure. Typologies, materials, and principles of sustainable design.

1.6 Introduction to History of Architecture and Arts — 5 ects

doc. dr. Nika Grabar, doc. dr. Miloš Kosec

Course provides basic information on architectural history and theory as well as links between architecture and other artistic and humanistic disciplines. Course combines chronological overview of history of architecture and art with introduction to basic methods and approaches to critical architectural research: reading, observation, writing, drawing, discussion, etc.

1.7 Mathematics — 5 ects

izr. prof. dr. Jaka Smrekar

Introduction to select mathematical concept and tools of importance in architectural use: vectors and analytical geometry in 3D space, systems of linear equations, concept of function as expression of dependence and overview of elementary functions, derivative and extremal problems, integral and its uses.

1.8 Basics of Build Physics and Technology — 5 ects

prof. dr. Martina Zbašnik Senegačnik, prof. dr. Sašo Medved

Planning of internal environment, heat transfer in built constructions, heat transmittance in building envelope blocks, mechanisms of built construction humidifying, diffusion of water vapour in building envelopes, practical verification of heat transfer and airtightness in buildings. Materials, their properties and functions in building envelopes; composition of outer walls, slanting and flat roofs, ground floors, and inter-storey constructions; glazing.

1.9 Architectural Drawing and Model

5 ects

doc. Uroš Rustja, doc. Paul O. Robinson

The course introduces students to the processes of communicating an architectural idea by means of abstraction, critical thinking, and material representation using drawing and model-making. During the course the student not only becomes acquainted with the diverse language of drawing and modelling as a communicator of tectonic spatial forms and material atmosphere but also learns to understand them as tools for research and presentation of spatial concepts.

1.10 Materials and Forms

5 ects

doc. Rok Žnidaršič

Materialization of architectural vision. Familiarization with and understanding of dependence between properties of materials, building technology, theoretical principles, and architectural design. Examination of issues through analysis of select cases of historical, vernacular, and contemporary architecture as well as practical tests of design and construction of spatial structures.

1.11 Space and Context

5 ects

doc. Mojca Gregorski

Course examines relationship between built and open space; positioning of architecture into open space; emotional, experiential, and sensory perception of space. Historical, socio-political, cultural, ecological, and economic context of space. Open space as equivalent architectural building block. Elements and tools of (re)design, understanding, protection, and conservation of open space.

1.12 Study Practice 1

2 ects

doc. dr. Tomaž Slak

Introduction to building of objects complements project work in other courses. Visits to building sites and documenting phases of work will help students acquire both knowledge and experience as far as architectural implementation problems are concerned. Students will be able to tangibly and closely acquaint themselves with complexity of building, materials, and coordination with other building process participants.

2.1 Design Studio 2

19 ect

**

Middle-sized building of given height on actual location; multi-storeyed programme; methodological approach; multi-storeyed object of concrete or other material; programme implementation with regard to location; scaling of basic elements; facades; installations; freehand presentation, technical drawing, colour application, model; public presentation.

2.2 Construction and Technology 1

5 ects

doc. dr. Tomaž Slak

Examination of elements of construction including structures, claddings, and building envelopes as well as other architectural systems, in connection with appropriate materials and in a practical way regarding means of installation and engineering role in the framework of a particular building. Construction logic and tectonics of building all materials and systems with the principles of composition into a working architectural product.

2.3 Freehand drawing

3 ects

doc. Leon Belušič

The students systematically record their thoughts. While drawing, they think, familiarize themselves with the space and its character. In contrast to the “sphere” principle, they practice on the drawing basis of the archetypal angular form – the cube. The cube motif gradually and in time evolves from simple compositions to complex structures.

2.4 Architectural Design 2

5 ects

doc. Mitja Zorc

Examination of relationship between programmatic principles and architectural composition. Subject is divided into three parts: establishment of architectural system, programmatic principles in architecture, and typical compositional and organizational approaches. Subject discussion is based on theoretical principles and analysis of select cases of historical, vernacular, and contemporary architecture.

2.5 Sociology of space

3 ects

prof. dr. Marjan Hočevar

Introduction to integral understanding of social dimensions of physical (built) environment. Discussion is based on explanation of mutual relationship between design, planning, production, and use of physical structures (buildings, settlements, infrastructural networks) and social relationships, processes, and changes in historical perspective and on all level of socio-spatial reality.

2.6 History and Theory of Architecture 1

5 ects

prof. ddr. Petra Čeferin

The course systematically develops theoretical thinking of architecture and charts the importance of history of architecture for architectural theory and design practice. Historical treatment is focused on the time period from the earliest architecture to the end of Roman antiquity, underlining the timeless character of architectural practice.

2.7 Loadbearing Structures 1

5 ects

doc. dr. Simon Petrovčič, viš. pred. dr. Srečko Vratuša

Linear loadbearing structural elements made from standardized building materials (wood, steel, and reinforced concrete); basic principles of Eurocodes standards; determination of permanent and variable influences on loadbearing combinations and proofing methods of liminal states of bearing and usability. Basics of construction of wooden/steel attachments and of detailing of concrete structures.

2.8 Introduction to Art Theory

5 ects

izr. prof. Jaka Bonča

Arts and visual arts, visual arts as form of communication; expressive elements of visual arts and mutual relations. Morphology of visual arts: art variables; relation between form and content. Art composition: measure, scale, module, ratio, proportion; organization of artistic space, system of relations, intervals, proportions and relations, standard elements, creation, and measurement system.

2.9 Residential architecture

3 ects

prof. mag. Anja Planišček

Examination of social and spatial aspects of residential architecture. “Housing and society” segment defines residences as one of basic human and societal needs. Concepts of housing, home, and housing policy are described. “Housing and architecture” segment analyses spatial and design aspects of housing, housing typologies, and concepts and experiments crucial for their development.

2.10 Introduction to Urbanism 5 ects

prof. dr. Tadeja Zupančič, doc. dr. Matevž Juvančič

Urban space, development, understanding the city with emphasis on micro-level experience; pedestrian/society as user of urban space; natural conditions; cultural environment as architectural space; visual and acoustic connections; elements of urban space; coordination of elements; principles and methods for researching, planning, and designing urban space.

2.11 Architectural Workshop 1 2 ect

**

Workshop is dedicated to architecture, urban planning, and design. It combines different types of expert knowledge, experiences, and visions while developing expert personality through critical attitude towards expertise. Workshop provides opportunity for comparison of different work methodologies on applicative basis and their results with creative synthesis and specific comments of the supervisor, thus helping students develop their projects.

3.1 Design Studio 3 15 ect

**

Large building of given height on actual location in the city; programme of mixed uses; methodological approach; sophisticated construction; project task, detailed arrangement, modular order; sizing of basic elements, technical standards, fire safety; facades; installations; computer presentation, freehand sketch, model; public presentation.

3.2 Construction and Technology 2 5 ects

prof. dr. Matej Blenkuš

Students are introduced to combination of basic structural and constructional-physical parts of building into integrated whole. Use of “integral approach” puts emphasis on more complex principles of building construction design and protection in connection with light, air movement, and sound transfer. Case studies are used to familiarize students with different construction and technological principles.

3.3 Artistic Elements of Architecture 3 ects

izr. prof. dr. Tomaž Novljan

Continuation and concretization of chapters from art theory into architectural space with emphasis on their contextualization. Art elements and variables, and their role in genesis of architectural space. Organization in architectural space. Role of colour and light/shadow in architecture. Role of senses (sight, hearing, smell, and touch) in genesis and experience of architecture.

3.4 Architectural Design 3 5 ects

prof. mag. Tomaž Krušec

Students discover that architectural form and composition are not random. Architectural concept must find answers to questions of location, terrain topography, orientation, purpose, natural light, climate characteristics, construction, chosen materials, etc. Three practical exercises are performed. The first one involves spatial construct, while the second and third one represent upgrading of the first one in the form of a simplified model of a building on given location.

3.5 Building and Planing Legislature 3 ects

prof. dr. Tadeja Zupančič

Order in space, land use planning, rules for land use planning; normativity level; relation between legal and ethical norms; legislation of space planning and design in Slovenia, conditions in neighbouring and comparable states; directives and recommendations on EU level; architectural and urbanism projects through prism of legislation.

3.6 History and Theory of Architecture 2 5 ects

prof. Mihael Dešman

Turning points in architectural history from end of classical antiquity to dawn of modern era are discussed. Historical eras, cities and buildings, architects, architectural types, ways of building are introduced, as well as theoretical works that follow and define architecture. Course analyses and interprets architectural plans in light of their genesis and develops critical understanding of architecture as art, science, and philosophy of construction.

3.7 Loadbearing Structures 2 5 ects

prof. dr. Vojko Kilar, doc. dr. David Koren

Main phases of engineering of building construction: design and choice of construction system, preparation of computer models, analysis and proofing of mechanical resistance and stability of reinforced concrete, steel, wooden, and brick structures. Foundation, earthquake-resistant structure design, basic principles of aseismic reinforcement of existing buildings, more sophisticated systems of construction.

3.8 Interior Design 2 5 ects

prof. Jurij Sadar

Introduction to interior design experience which is crucial for quality of architectural work. Course intention is to go beyond fitting-out of premises and to establish interior design experience as integration of both architectural and interior design knowledge in search of creating atmosphere and different components of residential comfort as well as multidimensional meaning of space in public buildings.

3.9 Public Architecture 3 ects

prof. mag. Tadej Glažar

Analytical work on selected social buildings helps students assimilate principles, meaning, purpose, and character of each particular building typology. Analytical apparatus is based on analysis of quality reference buildings and cases from Slovenian and international environment. Comprehensive understanding of social buildings is possible only through human beings who use them, and live and work in them.

3.10 Urban Design 5 ects

izr. prof. mag. Polona Filipič Gorenšek

Course includes definitions, methods, techniques, and strategies for modelling both condensed and dispersed city. Current urban processes contributing to city transformation are considered. Course introduces methods and techniques of identification and interpretation of spatial data, and through critical analysis, synthesis, and project processes builds sensibility for balancing spatial scales and harmony.

3.11 Renovationa and Conservation in Architecture 1 — 4 ects

izr. prof. dr. Sonja Ifko, izr. prof. dr. Ljubo Lah

Introduction to conservation and renovation of cultural heritage. Importance and value of heritage for society, spatial development contexts and integration of conservation into sustainable development; genesis of profession, doctrine and terminology, practical case studies. Main focus is dedicated to methodology of conservation processes and role of architects in renovation planning processes and adaptation of heritage re-use.

3.12 Architectural Workshop 2 — 2 ect

**

Workshop is dedicated to architecture, urban planning, and design. It combines different types of expert knowledge, experiences, and visions while developing expert personality through critical attitude towards expertise. Workshop provides opportunity for comparison of different work methodologies on applicative basis and their results with creative synthesis and specific comments of the supervisor, thus helping students develop their tasks.

4.1 Design Studio 4 — 15 ect

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Final semesters of this course are upgrades of courses in previous years. Supervisor and student construct more demanding project task based on seminar direction (emphasis on architecture, design, or urban planning). Public presentation.

4.2 Detail in Architecture — 4 ects

prof. dr. Martina Zbašnik Senagačnik

Design potentials of materials (traditional and innovative materials); technological and technical bases of structural sets for design (thermal bridge, airtightness, watertightness, fire safety, steam permeability, amortization, maintenance, etc.); fitting and jointing elements; digital tools for developing and implementing BIM, CNC, 3d printing; artistic component and symbolism.

4.3 Organization and Management of construction — 3 ects

doc. dr. Simon Petrovčič, doc. dr. David Koren, doc. dr. Tomaž Slak

Basic processes in construction from preparing project documentation to acquiring certificate of bringing into use. Legislative framework of construction and construction site regulations, organization of construction work, management of construction site and construction documentation, implementation/technology of construction. Construction product and basic demands for construction objects; basis of surveys, calculations, and schedules for construction planning.

4.4 Architectural Design 4 — 5 ects

prof. mag. Vasa J. Perović

Course critically approaches both current interpretation of typological knowledge and articulation of contemporary programmatically instable architecture through typological approach. Course is concerned with history of typologies – from development of residential typologies to typologies of public objects – and influences of typological approach on contemporary articulation of architectural projects. Students participate in practical exercises in which subject matter comprehension is assessed.

4.5 Development of Urbanism — 3 ects

izr. prof. dr. Lucija Ažman Momirski

Introduction: basic terminology, genesis of spatial elements. From forms to concepts. Continuous city, return of amorphous structures, development of medieval "bastion city", Renaissance "ideal city", Baroque residential city, rationalist "Georgette city", 19th and 20th century modern "tartan city" (up to and after 1945), 21st century contemporary city.

4.6 History and Theory of Architecture 3 — 5 ecs

doc. dr. Miloš Kosec

Historical overview of 20th century architectural thinking and creativity in interdependence with discoveries in social sciences, natural sciences, philosophy, arts, and technology. Discussion of artistic directions and movements as well as most prominent architects who have influenced modernistic understanding of space.

4.8 Installation Systems — 3 ects

prof. dr. Sašo Medved

Parameters of living and working environments; basics of energy conversion in buildings and properties of energy sources; technologies of energy self-sufficiency in buildings; design and planning of heating systems, domestic hot water supply, ventilation, cooling, air conditioning, transport systems, drinking water supply, and grey and black waste water treatment; electronic and smart installations; assessment of energy efficiency in installation systems and buildings.

4.9 Management and General Safety — 3 ects

doc. dr. Domen Kušar

doc. dr. Domen Zupančič

Circular economy; integral planning; management of projects and investments in building construction; contractual obligations between stakeholders; business plan; business communication. Hazards in built environment; city planning, architectural, and technical precautions against fire and other hazards; working conditions safety; protection against pollution.

4.10 Sustainable Architecture — 3 ect

**

Course is dedicated to principles of sustainability in architecture from basic concepts to spatial design. Introduction to basic ecological, economic, and socio-cultural aspects of sustainability as well as problem areas connected to architecture: "resilient cities and countryside", "flexible urban design", "materials and technologies", "participation in planning and design processes", "global vs. local", etc.

4.11 Urban Planning — 5 ects

izr. prof. dr. Ilka Čerpes

Discussion of integrated process of urban planning (terminological definitions, characteristics of contemporary urban space, social role of architects, goals, values). Testing of space reading methods and strategic allocation of uses, activity organization, network regulation, and morphological patterns of physical structures on actual example of city area.

4.12 Renovationa and Conservation in Architecture 2 — 4 ects

prof. Maruša Zorec

Renovation and conservation of architectural heritage – from conservative to radical approaches. Based on theoretical principles and research approaches of RCA1, RCA2 draws attention to practical problems through its history at home and abroad, key examples of good practice, and contemporary approaches. Practical exercises on concepts of actual examples of architectural heritage.

4.13 Study Practice 2 — 2 ects

doc. Rok Žnidaršič, prof. mag. Anja Planišček

Course includes three possibilities for study practice: one-month work in design bureau (building upon simulation of architectural studio in courses Design Studio 1–5 through actual experience of architectural practice); cooperation in projects based on "design–build" concept (combining planning and implementation practice); practice in cultural heritage protection organizations.

4.14 Architectural Workshop 3 — 2 ect

**

Workshop is dedicated to architecture, urban planning, and design. It combines different types of expert knowledge, experiences, and visions while developing expert personality through critical attitude towards expertise. Workshop provides opportunity for comparison of different work methodologies on applicative basis and their results with creative synthesis and specific comments of the supervisor, thus helping students develop their projects.

5.1 Design Studio 5 — 15 ect

**

Course is based on Design Studio 4 and provides opportunity for preparation of final thesis. Supervisor and student construct more demanding project task based on seminar direction (emphasis on architecture, design, or urban planning). Public presentation.

Elective subjects, group "A"

A 1.1 Residential Buildings — 3 ects

prof. mag. Anja Planišček

This course focuses on housing policy (residence, types of housing, role of the state); historical development and contemporary residential construction; development of residential construction in Slovenia; housing typologies; technological, Organization schemes, with an emphasis on spatial adaptability. The tutorials focus on designing apartment layouts in various building typologies.

A 1.2 Public Buildings — 3 ects

prof. mag.Tadej Glažar

Students grasp the laws, significance, purpose, and character of individual building typologies through analysis of selected public buildings. The analytical apparatus is based on the analysis of high-quality reference buildings and cases from Slovenia and beyond. Comprehension of public buildings through people who use them, live, or work in them.

A 1.3 Industrial Buildings — 3 ects

izr. prof. dr. Sonja Ifko

Cultural aspects of designing industrial buildings; development of industrial architecture – places of work across time; designing for new conditions in development – Industry 4.0, Industry 5.0, circular economy; flexibility and functionality; new work formats and workplaces in the future; revitalisation of historical structures for new conditions – the old and the new for balanced sustainable development.

A 1.4 Recreational Buildings — 3 ects

doc. dr. Domen Zupančič

This course adresses leisure, sports, and play facilities. The format is interactive, some assignments are carried out as part of seminar projects. Architecture and sports are combined in various ways. The aim is to recognize the potentials in the built and open environment for siting various recreation facilities.

A 1.5 Sacral Buildings — 3 ects

doc. dr. Leon Debevec

This course offers a complex insight into architectural characteristics of space where individuals come in contact with transcendental reality. By showing the development of its most significant elements, understood as a reflection of theological, ceremonial, and iconographic particularities of individual religions, the course substantiates sacral architecture as a field of artistic creation with its own identity.

A 1.6 Interior Design — 3 ects

izr. prof. mag. Aleš Prinčič

Insight into spatial identity, aesthetics, desires, and needs. Harmony of atmospheres and creating of a vision. Artistic attitude to space. In-depth understanding of elements, colours, materials, light. Design as part of a non-linear process. Use of simulators to improve concepts, sensitivity, and designers' personalities. Collages and sequences. Tradition lays the ground for new atmospheres.

A 2.1 20th Century Slovene Architecture — 3 ects

doc. dr. Nataša Koselj

The sources and concepts of modern architecture, major works, their authors; analysis of common characteristics and differences in domestic and worldwide pre-war and post-war modernism; the phenomenon and characteristics of the School of Architecture in Ljubljana in the 20th century, its guiding principles and influential areas; evaluation and guidelines for preservation and protection in connection with Docomomo International.

A 2.2 Architectural Theory and Critique — 3 ects

prof. ddr. Petra Čeferin.

The course deals with some important orientations and conceptualisations in contemporary architectural theory and philosophy of architecture, which are relevant for understanding the contemporary architectural practice. It focuses on relevant issues in architecture and its functioning in today's society. The course is designed as introduction to critical evaluation and writing about architecture.

A 2.3 Architectural Anthropology — 3 ects

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Introduction to the basic principles of interaction, interdependence, and the co-evolution of man and the anthropogenic material/physical environment; the human being as animal symbolicum, as a biophysical and symbolic creature; basic terms of semiotics and the information theory; the origin of architecture and the city; the interdisciplinary structure of architectural anthropology.

A 2.4 Architectural Analogies 3 ects

izr. prof. dr. Lucija Ažman Momirski

Reasoning by analogy is inference from specific to specific: if two objects correspond in certain characteristics known to us, they might correspond in those unknown to us. The student learns about the working method that supports critical monitoring and new and different interpretations of topical content in architecture and urbanism.

A 2.5 Introduction to Research in Architecture and Urbanism 3 ects

prof. dr. Tadeja Zupančič, izr. prof. dr. Ljubo Lah

Research approaches, methods, and techniques: between individual creativity and team creativity; gaining information and effective communication; paths to designing architectural ideas and concepts; the psychology of creativity; devising the architectural programme and project tasks; presentation and interpretation of research/project results.

A 2.6 Ecological Building Principles 3 ects

prof. dr. Martina Zbašnik Senegačnik

Analysis of materials and structures according to ecological principles (ecological, natural, local materials and structures); learning about relevant technologies for particular planning approaches (nearly zero-energy buildings, passive house; solar house, bioclimatic house, ecohouse); integrating principles of ecological building into the concept of building and settlement (solar plants, STCs, green roofs, and façades).

A 2.7 Analysis of Contemporary Architecture 3 ects

prof. ddr. Petra Čeferin.

The course adresses open questions of contemporary architecture, such as: the role and tasks of architecture in the society today; ways of engagement of architectural production with the economic, political, cultural, and architectural contexts of its emergence; the significance and role of the media in contemporary architecture; questions of architectural autonomy.

A 2.8 Heritage Interpretation 3 ects

izr. prof. dr. Sonja Ifko

The role of heritage in modern-day society: heritage as the indicator of cultural identity, as a spatial development and economic development potential; interpretation of heritage in the light of theory and conservation theory; description of methods and techniques for interpreting natural and cultural heritage; presentation and critical analysis of current trends worldwide concerning heritage interpretation.

A 3.1 Theory of Physical and Regional Planning 3 ects

...

Historical overview of the development of spatial planning and regional sciences; basics of spatial planning legislation, documentation and governance; informational support in spatial planning, GISs and their use; methodological ground for planning primary uses in space, planning in the secondary and tertiary sectors; synthesis in the spatial plan, synthesis methods, and good practices.

A 3.2 Communal and Housing Economy 3 ects

izr. prof. dr. Maruška Šubic Kovač

The significance and role of municipal activities and economy, Organization and management models of undertaking municipal activities; evaluation of investment projects, the aspect of cost in implementing public-utility services. Basic terms and characteristics in the field of housing economy, methods for meeting public needs, characteristics of planning, building, and maintenance in housing economy.

A 3.3 Land Policy and Property Evaluation 3 ects

izr. prof. dr. Maruška Šubic Kovač

Land policy, building land acquisition, intervention in property rights, land development, and taxes. Property evaluation, value, costs, price, the subject of appraisal, assessed value. Property appraisal principles. Property appraisal methods. Standards of property appraisal. Mass property appraisal. Appraisal report production.

A 3.4 Rurism and Rural Architecture 3 ects

prof. dr. Alenka Fikfak, doc. dr. Janez Peter Grom

Starting points and methodological bases for sustainable development of rural settlements according to their agricultural or urban function. The following fields will be adressed to promote understanding and design of contemporary rural architecture: rural culture and identity; genesis of the countryside with an emphasis on agriculture as a forming element of the traditional rural cultural landscape, settlements, and architecture.

A 3.5 Action Planning and Strategic Assessment 3 ects

izr. prof. dr. Ažman Momirski

Urban action planning is a form of informal/non-authoritarian planning that runs parallel to planning for real and analytical planning. The students learn about motives, solutions, and their applicability in the day-to-day practice of local urban planners and local planning services.

A 3.6 Urban Brownfields 3 ects

doc. dr. Primož Hočevar

Vacant or deserted construction land, empty and deserted buildings, suspended and deserted construction sites serve as the basic source for sustainable transformation and an asset in preventing the expansion of construction to the urban periphery. Such sites are classified as urban brownfields. The city redevelopment process should be primarily focused on the transformation of these weakest points, which can foster the process of sustainable transformation of the city.

Elective subjects, group "B"

B 1.1 Vernacular Architecture
3 ects

doc. dr. Domen Zupančič

Comprehensive issues of vernacular architecture, from theoretical background to recent solutions.

B 1.2 Design of Objects
3 ects

doc. Leon Belušič

Conceptual and design aspects of small architecture, which is not necessarily part of larger interiors or concepts. Architectural expression of the concept, model production, and integrated presentation in collaboration with external experts. Aspect of international and domestic achievements.

B 1.3 Design Concepts
3 ects

izr. prof. Jaka Bonča

Design. Typography as the most organised artistic medium. Standard, modular, systemic elements. Forms composed of modular elements. Recognisability of a group and the group's elements. Terminology interpretation. Composition with many elements. Expression. A grid as the simplest system. Grid in graphic design and architecture.

B 1.4 Light in Architecture
3 ects

izr. prof. dr. Tomaž Novljan

Manifold significance of light in space. Physical and visual properties of light. Natural and artificial light. Shades, reflection, and absorption. History of lighting. Light design. Light ambiences. Light pollution. Interior and exterior lighting. Quality and quantity of lighting. Lighting technology. Light in virtual spaces.

B 1.5 Design of Green Surfaces
3 ects

prof. dr. Davorin Gazvoda

History of landscape architecture; landscape planning and design; landscape structure (emergence of landscape patterns); interpretation of the landscape; types of open space; city landscape; city parks; garden art; contemporary design; living culture – a single-family house with a garden; housing estate; Slovenian landscape architecture, water in the city; the concept of nature in landscape architecture.

B 1.6 Settlement Culture
3 ects

doc. Aleksander Ostan

The factors that historically shaped the environment that we live in are natural and man-made features of the environment, social Organization, historical milestones, ways of human perception of space, and the response to external environmental factors. The common denominator is called settlement culture, which can be the key element in forming contemporary housing patterns and spatial identities.

B 1.7 Space and Recreation
3 ects

prof. dr. Alenka Fikfak

Significance and role of the course as a value of a high-quality life during studies and work; effects of the recreation activity and recreation space on the overall physical, mental, and social health; recreation as a preventive, corrective, and promotional activity for preservation of health; recreation as a way of life, and an essential part of a healthy lifestyle.

B 1.8 Parametric Design and GIS in Achitecture
3 ects

izr. prof. dr. Lucija Ažman Momirski

The theoretical framework of parametric design (definition, development, and analogue and digital models); parametric design in contemporary architectural practice; use of parametric software tools in architecture; design of dynamic and complex parametric models; integration of GIS with parametric design tools.

B 2.1 Art History
3 ects

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The concept of art in relation to natural and cultural heritage; various artistic disciplines: painting, sculpture, architecture, with a wide array of artistic practices, such as urbanism, landscape architecture, industrial and graphic design, photography, crafts, etc.; historical overview of art phenomena from prehistoric times to the present; learning about fundamental artistic terms, especially architectural elements and their composition.

B 2.2 Spatial Idiomatics
3 ects

prof. Maruša Zorec

Man and space, construction as a criterion for architectural expression (from the Renaissance to deconstructivism); bewitching the social into the spatial order; Traum and Wirklichkeit (Vienna Austriae); Golden Prague (What is genius loci?); Dickens abridged: The Tale of Two Cities (London versus Paris); new tendencies; what is de-constructivism?

B 2.3 Elements of Classical Composition
3 ects

doc. dr. Leon Debevec

This course provides insight into the classical discipline that remains an irreplaceable basis of architectural creation. Through face-to-face learning about its value matrix, aesthetics, structure of its "syntax" and the most important tools of its application, it introduces the student to the knowledge of "the old", whose achievements remain the highest measure of quality in architecture.

B 2.4 Environmental Psychology
prof. dr. Matija Svetina

Theory and methods of environmental psychology; personal space, crowd, ownership in space, territorial behaviour; spatial orientation and cognition; perception mechanisms and structure of spatial likeability; attachment to space, home psychology; children and space; psychology of the learning and working environment; psychology of urban and public spaces.

B 2.5 Theory of Architectural Design
3 ects

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Design as an inter-subject, interdisciplinary, multi-phase creative process of spatial intervention; design as communication, agreement, coordination, integration of contributions; design aspects, types, and phases; the role of regulations and norms; basic design methodology and technology; basic general and particular methods and techniques and comparison of methods; systemic methods in design and issues of specialisation.

B 2.6 Measurement Standardisation
3 ects

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Theoretical and methodological principles of measurement standardisation in civil engineering: anthropometrics, Vitruvius' models, Renaissance partes, development of industrial standardisation

B 2.7 Artistic Expression
3 ects

izr. prof. Jaka Bonča

Visual concept and design of space, substantive and conceptual aspect of space, expression using symbols. Fine arts design, artistic and spatial vocabulary, composition rules in fine arts, visual effects. Installation and architecton. Harmony, rhythm, dynamics, structure, texture, inner relationships. Material and spiritual content. Space, atmosphere, and setting.

B 2.8 Creative Design

3 ects

doc. Primož Jeza

Materialisation of architectural expression. Knowledge and grasping the interdependence of characteristics of materials, building technology, theoretical principles, and architectural design. The topics are adressed through the analysis of selected examples of historical, vernacular, and contemporary architecture and through practical attempts at designing and producing spatial structures.

B 2.9 History and Theory of Architecture 4

3 ects

doc. dr. Nika Grabar

Overview of concepts and ideas central to contemporary architectural thinking and creation. Analyses and interpretations of various works of central minds in architecture at the turn of the millennium are adressed in the light of current social, economic, artistic, and technological changes.

B 2.10On the Nature of Materials: History, Theory, and Transformation

3 ects

doc. Paul O. Robinson

The optional subject is a critical overview of the history, theory and technical use of materials in the programming of architectural space. Teaching takes place in the form of lectures and workshops within which there is an emphasis on language, tectonics, mold making, and casting.

B 3.1 Comprehensive Preservation of Built Heritage

3 ects

prof. Maruša Zorec

Value-oriented and normative starting points; comprehensive preservation and renewal, as a method in physical planning, design of settlements and places.

B 3.2 Renewal and Adaptation

3 ects

prof. Maruša Zorec

The process of studying cultural heritage, from the whole to the detail. Recognising the existing vocabulary and developing a new vocabulary. Content and concepts of the new in the old. Discussion on the issues and scenarios of lifecycle of old buildings. Planning and checking comprehensive architecture. The study of methods and materials. Problems of the old–new contact. Examples of good practice.

B 3.3 Integral Renewal

3 ects

izr. prof. dr. Ljubo Lah

International starting points and terminology in architectural heritage protection; documenting, measurements, production of an architectural snapshot, evaluation of architectural heritage with the fundamentals of conservation plan preparation, development of programme and renewal concept, planning strategies and principles, integrated protection of architectural heritage, good and bad practices in preserving architectural heritage.

B 3.4 Preservation of Contemporary Architectural heritage

3 ects

izr. prof. dr. Sonja Ifko

Research, preservation, and interpretation of the latest categories of the 19th and 20th century architectural heritage: modernist, industrial and engineering heritage; philosophy of conservation approaches; understanding the complexity of restorations and interdisciplinarity; critical analysis of good conservation practices; sustainable restoration as the basis of urban revitalisation processes.

B 3.5 Architecture and Archeology

3 ects

izr. prof. dr. Lucija Ažman Momirski

Learning about architecture and archaeology in theory (measurements and interpretation) and practice (transformation); quasi measurements and fantasised reconstructions; first attempts at scientific, systematic archaeology; controversies about antique architecture in the 18th and 19th centuries; the shift in the second half of the 19th century; the role of architects within the framework of archaeology in the 20th and 21st centuries.

B 4.1 Graphics for Architects

3 ects

izr. prof. Boštjan Botas Kenda

Graphic design in public space, in architecture, adressed through understanding the elements of visual communication, by considering real situations in modern urban day-to-day life. The rules of perceiving space through letters, colours, signs, and materials, as a book, map, or diagram, set on the urban parterre, accepting the reasoning of the passer-by.

B 4.2 Space and Media

3 ects

doc. dr. Matevž juvančič

Upgrading of knowledge about various architectural representation techniques, media, and ways of communication with various users and audiences with state-of-the-art results of studies about processes of spatial cognition and interpretation, through considerations about their usefulness in the process of architectural and urban design.

B 4.3 Computer Supported Architecture

3 ects

prof. dr. Žiga Turk

The role of the computer in architecture: a medium, a tool, or an assistant? Communication revolutions: Bramante and Gehry. Technological trends: Building Information Modeling (BIM), cloud, artificial intelligence (AI), networks for connecting people and devices (Internet of Everything). New careers: from a digital modeller to the head of a digital project. Tutorials: project- and collaboration-oriented, in BIM environment.

B 4.4 Architecture of Virtual Space

3 ects

doc. dr. Or Ettlinger

The course combines art history, theory of the media and film studies – and their relationship with architecture. It explores and connects the abstract idea of virtual space and experiencing space through images, regardless of their medium. It also studies the role of architectural content in the structuring of experience of the virtual space, from Antiquity to the technology of the future.

B 4.5 Freehand Drawing

3 ects

doc. Leon Belušič

Lectures and drawing in the “studio” from the model, body tectonics, body anatomy, body in motion, dressed figure, visual interpretation for creating and shaping artistic expression, emotional expression, and rational comprehension.

B 4.6 Approaches to Creativity

3 ects

doc. dr. Or Ettlinger.

This course presents different approaches to creativity as seen from the perspectives of art, design, science, and the humanities. It is mean as a support to students in their studies and professional lives. It encourages students to discover, expand, and master their own creative abilities and understand how to flexibly select the most suitable for any given task.

B 4.7 Digital Modelling and Production 3 ects

prof. Jurij Sadar

A theoretical introduction to the application of digital technologies in the context of prototype production in the creative process of architectural planning. Students are introduced to the basics of digital model production and the use of digitally-guided tools (laser cutting, 3D-printing, robotic arm, etc.). Digital production of models and prototypes. A critical reflection on products from the aspect of their significance for public space and the society.

B 4.8 Basics of Computer Programming 3 ects

doc. dr. Simon Petrovčič

The course introduces students to basic techniques of programming in scripting languages (e.g. Python). The students will produce their own software tools using the modelling environment Rhinoceros/Grasshopper, used as part of creative processes of algorithm-supported design in architecture. In collaboration with the Faculty of Computer and Information Science of the University of Ljubljana.

B 5.1 Building Prefabrication 3 ects

doc. dr. Domen Kušar

The system of closed prefabricated building; the system of open prefabricated building; module and modularity and its significance in architecture; anthropometric and other measurement systems; standardisation of prefabricated components; structural systems; properties of prefabricated components; joints and joiners in prefabricated elements; the action radius; permanence of the construction season.

B 5.2 Concepts of Structures 3 ects

prof. dr. Vojko Kilar

Selected chapters in the fields of structures and civil engineering: the concept and design of structures in architecture, legislative frameworks of design and construction, designing earthquake-resistant buildings, state-of-the-art technologies, new construction details and materials, good practices in design, distance studies and design in collaboration with the Faculty of Civil and Geodetic Engineering of the University of Ljubljana (optional).

B 5.3 Structural Systems 3 ects

doc. dr. Lara Slivnik

Historical overview of various types structural systems: arch, lattice, frame, thin-shell, suspended, and inflatable structures. The use of innovative structural systems on the examples of buildings for world exhibitions and Serpentine Gallery's pavilions. Three-hinged structures and mushroom structures will be highlighted as cases of special structural systems.

B 5.4 Structures of Industrial Buildings 3 ects

prof. dr. Matej Blenkuš

Review of specific issues in factory building; heavy foundations, structural systems, components and typical details; general study of construction materials and methods; review of the building procedure.

B 5.5 The Detail in Architectural Composition 3 ects

prof. Jurij Sadar

The detail in architectural composition is the basic element of a building, determining both its functioning and its appearance. Through lectures and tutorials we show how the detail functions in the sense of technical, technological, and sustainable requirements; how details from previous periods could be elaborated with the technological capabilities available today, and how this would affect the building's appearance.

B 5.6 Detail in the Interior 3 ects

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Detailed design of interior elements. Engineering/technical and comprehensive design aspects of the detail. Living quality, applicability, strength, safety, durability, economy, and harmony. Lighting and electric symbols, colour and texture. Whole, detail, and technical implementation. Worldview and craftmanship. Stairs, requirements, and implementation. Kitchen technology. Materials and joints.

B 5.7 Spatial Acoustics 3 ects

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Theoretical foundations of sound (and noise); superposition of sound waves in space; propagation of sound waves through air, structures and manifestations; the effects on propagation of sound waves through air and structures, sound protection.

B 5.8 Energy and Ecological Assessment of Buildings 3 ects

prof. dr. Sašo Medved

Micro climate conditions in cities and mitigation measures against heat islands, modelling of micro climate conditions and the spread of pollutants in the urban environment, EU legislation in the field of energy efficiency of buildings, design and modelling of nearly zero-energy buildings, renewable energies, assessment methods and the criteria of energy efficiency of buildings, LCA methods of environmental assessment, environmental indicators and EPD, environmental certification of buildings.

B 5.9 Modeling of Façade Envelope 3 ects

prof. dr. Martina Zbašnik Senegačnik

Technological innovations in the façade envelope. The key parameters in its design. Digital design: ornamental, media, interactive, intelligent façades, biomimetics in architecture. Surface treatment of the façade. Modelling of particular components and production using robots. Active, passive, plus energy façade envelopes. BIM technology. CAD–CAM technology.