Lodz University of Technology

# Study programme

| | |
|---|---|
| **Faculty:** | Faculty of Civil Engineering, Architecture and Environmental Engineering |
| **Major:** | Architecture |
| **Level of study:** | second-cycle programme (magister inżynier) |
| **Form of study:** | full-time studies |
| **Academic year:** | 2026/27 |

# Table of contents


| | |
|---|---|
| Basic information | 3 |
| Learning outcomes (in relation to the PQF) | 4 |
| Matrix of course modules in relation to learning outcomes and curriculum content | 6 |
| ECTS - subjects | 14 |
| ECTS indicators | 17 |
| Methods of verifying and assessing learning outcomes | 18 |
| Professional internships | 20 |
| Characteristics of the course | 21 |
| Education program | 23 |

## Basic information

| | |
|---|---|
| Name of the field of study: | Architecture |
| Level of study: | second-cycle programme (magister inżynier) |
| Study profile: | general academic |
| Form of studies: | full-time studies |
| Duration of studies (number of semesters): | 3 |
| The number of ECTS points required to complete studies: | 90 |
| Total number of hours of classes: | 1125 |
| The number of ECTS points a student obtains as part of classes conducted with the direct participation of academic teachers or other persons conducting classes: | 45 |
| Professional title awarded to graduates: | |
| ISCED code: | 0731 |
| Language of study: | polish |

### Assigning the course to the disciplines to which the learning outcomes relate

| Discipline | Percentage share |
|---|---|
| Architecture and Urban Planning | 100% |

## Learning outcomes (in relation to the PQF)

| No. | Learning outcome code | Learning Outcome Content | Reference to the universal characteristics of the first level of PRK | Reference to the second-level characteristics of the PRK, taking into account the second-level characteristics enabling the acquisition of engineering competences |
|---|---|---|---|---|
| **1** | **2ARC1** | Knows and understands structural, construction and engineering problems related to building design | P7U_W | P7S_WG, P7S_WK, P7S_WG_inż |
| **2** | **2ARC10** | Knows and understands issues related to architecture and urban planning in the context of the multi-discipline nature of architectural and urban design and the need for cooperation with other specialists | P7U_W | P7S_WG, P7S_WG_inż |
| **3** | **2ARC11** | Knows and understands the rules of gathering information and their interpretation as part of preparing a project concept | P7U_W | P7S_WG, P7S_WG_inż |
| **4** | **2ARC12** | Knows and understands the principles of a professional presentation of architectural and urban concepts | P7U_W | P7S_WG |
| **5** | **2ARC13** | He knows and understands the nature of the architect's profession and its role in society | P7U_W | P7S_WK, P7S_WK_inż |
| **6** | **2ARC14** | Can use the experience gained during studies to make a critical analysis of the conditions and formulate conclusions for design in a complicated, interdisciplinary context | P7U_U, P7U_K | P7S_UW, P7S_UU, P7S_KK, P7S_UW_inż |
| **7** | **2ARC15** | Can use interdisciplinary knowledge and skills acquired during studies to design a complex architectural object or urban complex that meets the aesthetic and technical requirements, creating and transforming space and giving it new values | P7U_U | P7S_UW, P7S_UW_inż |
| **8** | **2ARC16** | Can prepare advanced graphic, written and oral presentation of his design concepts in the field of architecture and urban planning, meeting the requirements of professional documentation appropriate for architecture and urban planning | P7U_U | P7S_UK, P7S_UW_inż |
| **9** | **2ARC17** | Can use analytical methods to formulate and solve project tasks, present the theoretical background and justification of the offered solutions in the form of a scientific study | P7U_U | P7S_UW, P7S_UW_inż |
| **10** | **2ARC18** | Can organize the workflow taking into account all phases of the design concept | P7U_U | P7S_UO, P7S_UU |
| **11** | **2ARC19** | Is ready to undertake and perform work in a professional manner, including compliance with the principles of professional ethics and taking responsibility for actions taken | P7U_K | P7S_KK, P7S_KO |
| **12** | **2ARC2** | Knows and understands the detailed problems of architecture and urban planning in the scope of solving complex design problems | P7U_W | P7S_WG, P7S_WG_inż |
| **13** | **2ARC20** | Is ready to respect the diversity of views and cultures and to show sensitivity to the social aspects of the profession | P7U_K | P7S_KK, P7S_KO, P7S_KR |

| No. | Learning outcome code | Learning Outcome Content | Reference to the universal characteristics of the first level of PRK | Reference to the second-level characteristics of the PRK, taking into account the second-level characteristics enabling the acquisition of engineering competences |
|---|---|---|---|---|
| **14** | **2ARC21** | Is ready to take responsibility for human, social, cultural, architectural and urban values in environmental protection and cultural heritage | P7U_K | P7S_KO, P7S_KR |
| **15** | **2ARC22** | Is ready for lifelong learning, including taking up doctoral and postgraduate education or participating in other forms of education | P7U_K | P7S_KO |
| **16** | **2ARC23** | Is ready to inspire other people to learn and organize the learning process | P7U_U | P7S_UK |
| **17** | **2ARC3** | Knows and understands advanced problems related to architecture and urban planning useful for the design of architectural objects and urban complexes in the context of social, cultural, natural, historical, economic, legal and other non-technical conditions of engineering activities and integrates the knowledge acquired during studies | P7U_W | P7S_WG, P7S_WG_inż |
| **18** | **2ARC4** | Knows and understands the problems of physics, technology and functions of buildings to the extent that ensures the comfort of use and protection against weathering | P7U_W | P7S_WG, P7S_WG_inż |
| **19** | **2ARC5** | Knows and understands the relationships between man and architecture and between architecture and the surrounding environment, and the need to adapt architecture to human needs and human scale | P7U_W | P7S_WK |
| **20** | **2ARC6** | Knows and understands the laws and procedures necessary for the implementation of building projects and the integration of buildings with the overall planning project | P7U_W | P7S_WK, P7S_WK_inż |
| **21** | **2ARC7** | Knows and understands the methods and means of implementing environmentally responsible sustainable design and the protection and conservation of the surrounding environment | P7U_W | P7S_WG, P7S_WG_inż |
| **22** | **2ARC8** | Knows and understands the history and theory of architecture as well as art, technology and humanities to the extent necessary for the proper execution of architectural designs | P7U_W | P7S_WG |
| **23** | **2ARC9** | Knows and understands the principles and solutions of building structures and building materials used in the performance of complex engineering tasks in the field of architectural and urban design | P7U_W | P7S_WG, P7S_WG_inż |

## Matrix of course modules in relation to learning outcomes and curriculum content

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Theory of Architectural Design I | Theory of designing public buildings, commercial buildings and collective housing; presentation of the design process, analysis of external conditions, principles of shaping buildings in a city centre or town centre/district environment, selection/construction of architectural form, optimal function and use of appropriate formal language. Overview of selected domestic and foreign projects. | | | x | | | | | | | | | x | | | | | x | | | x | x | | |
| 2 | Architectural Design in Downtown Context | Architectural concept of the building and its surroundings Design of one of three individual buildings, including shared public spaces and transport services. Coordination of urban and technological structures. The themes are related to locations in the urbanised area of central Łódź or in selected centre-forming areas with a defined fabric. | | x | | | | x | x | x | | | | | x | x | | | | | x | | | | |
| 3 | Structures in Modern Architecture | construction issues in modern architectural structures – design and presentation of architectural solutions | x | | | | | x | | | | | | | | | | | | x | | | | | |
| 4 | Selected Issues of Sustainable Design | Environmental aspects of sustainable development in cities. Climate change caused by urbanisation. Urban heat islands and methods of preventing them. Aerodynamic characteristics of built-up areas. Alternative water sources in buildings. Sustainable rainwater management. Examples of solutions in Poland and abroad. Selection of renewable energy sources and their impact on environmental aspects assessed in the life cycle of a building. Selected social aspects of the internal environment of a building: visual comfort – access to daylight, thermal comfort. | | | x | | | | | | x | | | | | | | | | | | | x | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Modern Technologies and Building Installations in the Context of Sustainable Design | Theory of heat balances, air exchange, sewage and water. Discussion of the principles of connecting sanitary facilities to a building. Analysis of the choice of heat source, including requirements for its size and location in the building. Hot and cold water installations. Sanitary and rainwater drainage systems. Heating and ventilation systems. Fire protection systems. Internal fire protection systems. Domestic and industrial sewage systems. Rainwater drainage systems. Modern water supply and sewage systems in buildings for various purposes. Construction and operation of mechanical ventilation systems with heat recovery. Renewable energy. | x | | | | | x | | | | | | | | | | | x | x | | | x | | x |
| 6 | Integration of Design Processes BIM | Introduction to the principles of group collaboration and the fundamentals of advanced BIM technologies. | | | x | x | | | x | x | | | | | | | x | | x | | | | | | |
| 7 | Strategic and Participatory Planning. Theoretical Basics | Selected issues in social participation theory and communication planning. Methods and techniques of social participation in urban planning and design. Case studies and analyses. Characteristics of social participation in urban design. Social participation and the process of creating a culture of place use. Legal aspects of social participation in Poland. Information technologies in the process of social participation in urban planning and design. | | x | | | x | | | | | | | | | x | | | x | | | | x | | |
| 8 | City Centres Design | Urban planning and architectural, natural and landscape, formal and legal, and socio-economic issues related to the transformation of central areas of small and medium-sized towns, with particular emphasis on an integrated approach covering the interdependencies between urban planning solutions and the quality of life of residents, as well as the social and economic situation of the area. | | | | | | x | x | x | x | x | | x | x | | | | x | | | | | x | |
| 9 | Historical City. Modernisation and Protection Design | Selected design and conservation issues. The problem of the tradition of a place. The design of an exhibition of relics from a historic complex or the arrangement of the site in an urban environment. The problem of new architecture in a historic environment. | | | | | | x | x | x | x | x | | x | x | | | | x | | | | | x | |
| 10 | Urban Rehabilitation | Rehabilitation of a part of the city on a scale appropriate to the selected issue. | | | | | | | | | | | | | | | | | | | | | | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Urban Regeneration | Designing in degraded urban structures, with particular emphasis on the principles of revitalisation measures in historic areas. | | | | | | x | x | x | x | x | | x | x | | | | x | | | | | x | |
| 12 | Design Theory of Central Areas of Cities | The essence and phenomenon of city centres, the programme and scale of central areas, historical fabric and contemporary needs, public space in city centres, greenery in central areas, water in central areas, forms of transport systems. | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Urban Regeneration and Cultural Heritage | Selected issues related to the revitalisation of historic urban areas. Potential conflicts between the revitalisation process and the protection and conservation of monuments. Sustainable development and cultural heritage. Cultural landscape and the identity of cities in the process of their renewal. Presentation of selected cases from Poland and Europe. | | | | | | | | | | | | | | | | | x | | | | | x | |
| 14 | Communication and Technical Infrastructure of the City | A recapitulation of contemporary transport policy in the spirit of "sustainable mobility", from which the selection of elements presented in more detail should result. Infrastructure for individual means of transport, such as airports, railways, SKM, trams, roads and streets in state regulations and in reality, "People Movers", bicycle systems and pedestrian systems. | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Seminar. City Centres Design | Case studies from various cities based on classical or online sources. | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | Seminar. Directions in Contemporary Urbanism | Selected trends in contemporary urban planning and their practical implementation. Analysis of the synthesis of results presented in graphic form, with particular emphasis on factors serving to improve quality of life, increase the attractiveness and competitiveness of a given locality, build climate resilience and sustainable development. | | | x | | x | x | | | x | | | | | | | | x | | | | | | |
| 17 | Seminar. Urban Regeneration and Cultural Heritage | Selected cases of revitalisation of historic areas, with particular emphasis on examples from Poland and Europe concerning the revitalisation of historic city centres and post-industrial areas. | | | x | | x | x | | | x | | | | | | | | x | | | | | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | Research Methodology | Researcher's workshop – general information. What is scientific work, scientific publication and scientific presentation? Bibliographic references and footnotes – rules for creating them. The structure of a research paper. Scientific articles and presentations at scientific conferences (papers, communications, posters) – basic principles and rules for creating them. Research techniques and research methods I. Selected research techniques. Research techniques and research methods | | | | | | | | | x | | | | | | | | x | | | | | x | |
| 19 | Theory of Architectural Design II | The theory of designing public, commercial and collective residential buildings through the presentation of the design process, in particular the analysis of external conditions, the shaping of buildings in the city centre or town centre/district, the selection/construction of architectural form, optimal function and the use of appropriate formal language. Review of selected domestic and foreign projects. | | | x | | | | | | | | | x | | | | | x | | x | x | x | | |
| 20 | Architecture Design of Public Building | The architectural concept of a large-scale public building with a complex functional programme, using a large-span structure, in an open area in an urban setting, while simultaneously solving the problems of developing the space surrounding the building, which is to form a coherent whole with it in terms of composition and programme. | | x | x | | | x | x | x | | x | x | | | | | | | | x | | | | |
| 21 | Theory of Spatial Development and Local Planning | The beginnings of regional planning – important concepts. Planning conditions and their interrelationships – case study analyses. Sustainable development and quality of life of residents versus municipal development issues. Legal environment of municipal spatial development conditions and directions studies, including the place of the study document in micro- and macro-scale spatial policy, the planning process. Techniques for preparing a study of conditions and directions of municipal development and policy documents at the municipal level in other countries. Principles of spatial policy formation, urbanisation models. Spatial planning as a strategic process – development models. Demographic conditions in relation to the typology of development, land absorption balance and economic conditions. | | | | | | | | | | | | x | | | | | x | | | | x | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | Spatial and Regional Planning | Issues determining the possibility of building a city and its surroundings as a coherent whole; - rationally organised, harmonised with its surroundings, economically fair and rich in cultural values. | | | x | | | x | | | | x | x | | | x | | | | | | | | | |
| 23 | Spatial Planning | Principles of constructing planning provisions in the form of local law, taking into account the interdisciplinary nature of spatial planning issues. Forms of recording issues shaping spatial order, with particular emphasis on the principles of proportionality in urban planning. Links between planning provisions, their thematic scope and detail, and the construction investment process. | | x | | | | x | x | | | | | x | | | | | x | | | | x | | |
| 24 | Theory of Conservation and Archeology | The history of monument protection and conservation. The history of conservation theories and doctrines in the 19th and 20th centuries. Current trends in conservation theory. Key international documents. | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | Protection of Cultural Heritage | Issues related to the protection and conservation of monuments, with particular emphasis on the adaptation of existing buildings and the functioning of conservation services in Poland. The most important doctrinal documents (UNESCO, ICOMOS, TICCIH) and legal acts in force in Poland relating to conservation issues. | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Conservation Design | Selected design and conservation issues. The problem of place tradition. The problem of new architecture in a historical environment. Conceptual design of infill development and its surroundings, including an analysis of historical and conservation conditions. The problem of adapting historic buildings. New functions for industrial and technical monuments – possibilities and limitations. The problem of supplementing, expanding and recomposing historic buildings. The degree of permissible interference in the structure of a historic building – latest trends. | | | | | | | x | | | | | | | x | | x | x | | | x | | x | |
| 27 | Landscape and Natural Environment | Typology and classification of landscape forms Visual quality of the landscape Social conditions for landscape development Legal basis for landscape protection in Poland at various planning levels. | | | | | | | | | | | | | | | | | | | | | x | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | Seminar. Protection of Cultural Heritage | Cultural protection, going beyond issues strictly related to the protection and conservation of architectural monuments. Among other things, social, managerial and environmental aspects are taken into account. | | | | | | | | | x | | | | | | x | | | | | | | x | |
| 29 | Seminar. Traditional Construction Technique | An overview of selected traditional, historical building techniques and structures (including special and less typical solutions) in terms of problems. Their analysis in terms of design and implementation activities related to the protection of architectural heritage: conservation, restoration and construction works and solutions that have been undertaken or need to be undertaken. | | | | | | | | | x | | | | | | x | | | | | | | x | |
| 30 | Seminar. Theory of Monument Conservation | The importance and complexity of monument protection and conservation. Key principles of protection and conservation, such as minimal intervention, reversibility of actions, and respect for the original substance of the monument. Controversies and challenges related to monument conservation. | | | | | | | | | x | | | | | | x | | | | | | | x | |
| 31 | Selected Issues of Contemporary art Theory and Architecture | The theory of architecture and conducting scientific research in this field. Selected theoretical texts from different periods. | | | | | | | | | x | | | | | | | | | | x | | | x | |
| 32 | Foreign Language for Specialist Purposes | Analysis of scientific texts; critical reading of authentic materials. Synthesis of information from various sources. Rules for creating scientific texts and scientific presentations. Describing concepts, phenomena and processes; interpreting research results/statistical data. Scientific presentations: forms, signposting/signalling/call for action, body language and presentation techniques. Reflection, self-assessment and lifelong learning in a scientific and industry context. | | | | x | | | | x | | | | | | | | | | | | | | | |
| 33 | Intellectual Property Protection, Technology Transfer and Research Results Commercialization | Law in the investment process. Scope, detailed provisions. Protection of intellectual property in architecture. Technology transfer and commercialisation of research results. | | | | | x | | | | | | | | | | x | | | | | x | | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | Ethics of the Architectural Profession | Ethics in the architectural profession; introduction to the etymology of the word ethics, discussion of basic concepts, presentation of the creators of the concept of ethics. Ethics in the 20th century, presentation and discussion of individual divisions, their detailed characteristics. Discussion of the branches of ethics. Professional ethics as a set of principles and standards defining the conduct of representatives of various groups in their professional lives, and in particular presentation of the code of ethics for the profession of architect. | | | | | x | | | | | | | | | | x | | | | | | | | |
| 35 | Philosophy and Aesthetics | What is philosophy; basic philosophical concepts What is aesthetics, basic aesthetic concepts. What is aesthetic value. The relationship between aesthetics and architecture based on the views of Roger Scruton. | | | x | | | | | | | | | | | | | | x | | x | | | x | |
| 36 | Urban Sociology | Urban sociology as a discipline with theoretical foundations, the city as a social structure. Socio-spatial diversity in cities, with particular emphasis on post-socialist cities (e.g. tower blocks). Local communities and social ties – social creation of space. Exclusion and hidden spaces. Sociological study of urban space – quantitative and qualitative methods (surveys, informal interviews, collaborative photographs). | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | Communication and Negotiations | Issues related to communication (including conflict resolution) and interpersonal interactions related to communication and decision-making | | | x | | | | | | | | | | | | | | x | | x | | | x | |
| 38 | History of Art | The significance of the avant-garde for contemporary culture. The beginnings of modern art and the avant-garde. Recent artistic activities addressing social issues. | | | x | | | | | | | | | | | | | | x | | x | | | x | |
| 39 | Diploma Seminar | Methodology of writing dissertations and issues useful for creating a dissertation project along with the completion of the competency examination | | | | | | | | | | | | | | | x | x | | | | | | | |

| No. | Course name | Program content | 2ARC1 | 2ARC10 | 2ARC11 | 2ARC12 | 2ARC13 | 2ARC14 | 2ARC15 | 2ARC16 | 2ARC17 | 2ARC18 | 2ARC19 | 2ARC2 | 2ARC20 | 2ARC21 | 2ARC22 | 2ARC23 | 2ARC3 | 2ARC4 | 2ARC5 | 2ARC6 | 2ARC7 | 2ARC8 | 2ARC9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | Final Project | A master's thesis should be project- and research-based and should contain solutions to complex engineering tasks using analyses and research as well as general and specialist knowledge. Its purpose is to demonstrate the student's ability to solve problems in architectural and urban design. The thesis is prepared as part of individual cooperation between the student and the supervisor. | | x | | | | x | x | x | x | | | | x | x | | | x | | | | | | |
| 41 | Specialist Seminar - Integration of Design Processe | Structural solutions for buildings constituting the concept of a diploma thesis. | x | | | | | | x | | x | | | | | | x | | | | | | | | x |
| 42 | Architecture Design | The design task involves developing an architectural concept for a public building and its surroundings. | | | | x | | x | | | | x | x | x | | | | | | | | | | | x |
| 43 | Urban Design | A project developing a topic chosen by the student for their final project. Detailed specification of the scope of the project depending on the specific content of the final project. | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | Conservation Design and Revitalisation | bartosz.walczak@p.lodz.pl | | | | x | | x | | | | x | x | x | | | | | | | | | | | x |
| 45 | Architecture Design Seminar | Current trends in architectural design. An overview of the most interesting projects in Poland and around the world. | | | | | | | | | | | | | | | x | x | | | | | | | |
| 46 | Urban Seminar | The role of narrative in the presentation of urban planning projects. Evidence-based planning method. All conditions and design solutions considered on a local, district and city scale and in relation to the region. | | | | | | | | | | | | | | | x | x | | | | | | | |
| 47 | Conservation Seminar | Current trends in architectural design with regard to historic buildings and complexes, based on a review of the most interesting projects in Poland and around the world. | | | | | | | | | | | | | | | | | | | | | | | |

## ECTS - subjects

| No. | Course name | ECTS | Subjects in the field of humanities and social sciences | Elective subjects | Profile items | Classes in a foreign language |
|---|---|---|---|---|---|---|
| 1 | Theory of Architectural Design I | 2 | | | 2 | |
| 2 | Architectural Design in Downtown Context | 6 | | 6 | 6 | |
| 3 | Structures in Modern Architecture | 2 | | | | |
| 4 | Selected Issues of Sustainable Design | 1 | | | 1 | |
| 5 | Modern Technologies and Building Installations in the Context of Sustainable Design | 2 | | | | 2 |
| 6 | Integration of Design Processes BIM | 3 | | | 3 | |
| 7 | Strategic and Participatory Planning. Theoretical Basics | 2 | | | 2 | |
| 8 | City Centres Design | 6 | | 6 | 6 | |
| 9 | Historical City. Modernisation and Protection Design | 6 | | 6 | 6 | |
| 10 | Urban Rehabilitation | 6 | | 6 | 6 | |
| 11 | Urban Regeneration | 6 | | 6 | 6 | |
| 12 | Design Theory of Central Areas of Cities | 1 | | | 1 | |
| 13 | Urban Regeneration and Cultural Heritage | 1 | | | 1 | |
| 14 | Communication and Technical Infrastructure of the City | 1 | | | 1 | |
| 15 | Seminar. City Centres Design | 1 | | 1 | 1 | |
| 16 | Seminar. Directions in Contemporary Urbanism | 1 | | 1 | 1 | |
| 17 | Seminar. Urban Regeneration and Cultural Heritage | 1 | | 1 | 1 | |
| 18 | Research Methodology | 2 | | 2 | 2 | |
| 19 | Theory of Architectural Design II | 2 | | | 2 | |
| 20 | Architecture Design of Public Building | 6 | | 6 | 6 | |

| No. | Course name | ECTS | Subjects in the field of humanities and social sciences | Elective subjects | Profile items | Classes in a foreign language |
|---|---|---|---|---|---|---|
| 21 | Theory of Spatial Development and Local Planning | 2 | | | 2 | |
| 22 | Spatial and Regional Planning | 2 | | 2 | 2 | |
| 23 | Spatial Planning | 2 | | | 2 | |
| 24 | Theory of Conservation and Archeology | 2 | | | 2 | |
| 25 | Protection of Cultural Heritage | 1 | | | 1 | |
| 26 | Conservation Design | 7 | | 7 | 7 | |
| 27 | Landscape and Natural Environment | 1 | | | 1 | |
| 28 | Seminar. Protection of Cultural Heritage | 1 | | 1 | 1 | |
| 29 | Seminar. Traditional Construction Technique | 1 | | 1 | 1 | |
| 30 | Seminar. Theory of Monument Conservation | 1 | | 1 | 1 | |
| 31 | Selected Issues of Contemporary art Theory and Architecture | 2 | 2 | | 2 | |
| 32 | Foreign Language for Specialist Purposes | 2 | 2 | 2 | | |
| 33 | Intellectual Property Protection, Technology Transfer and Research Results Commercialization | 1 | | | | |
| 34 | Ethics of the Architectural Profession | 1 | | | 1 | |
| 35 | Philosophy and Aesthetics | 1 | 1 | 1 | | |
| 36 | Urban Sociology | 1 | 1 | 1 | | |
| 37 | Communication and Negotiations | 1 | 1 | 1 | | |
| 38 | History of Art | 1 | 1 | 1 | | |
| 39 | Diploma Seminar | 3 | | 3 | 3 | |
| 40 | Final Project | 20 | | 20 | 20 | |
| 41 | Specialist Seminar - Integration of Design Processe | 1 | | | | |

| No. | Course name | ECTS | Subjects in the field of humanities and social sciences | Elective subjects | Profile items | Classes in a foreign language |
|---|---|---|---|---|---|---|
| 42 | Architecture Design | 2 | | 2 | 2 | |
| 43 | Urban Design | 2 | | 2 | 2 | |
| 44 | Conservation Design and Revitalisation | 2 | | 2 | 2 | |
| 45 | Architecture Design Seminar | 1 | | 1 | 1 | |
| 46 | Urban Seminar | 1 | | 1 | 1 | |
| 47 | Conservation Seminar | 1 | | 1 | 1 | |

# ECTS indicators

| Name | Value |
|---|---|
| The total number of ECTS credits that a student must obtain through elective courses (amounting to no less than 30% of the total ECTS credits required to obtain the qualification corresponding to the given level of study) | 60/90 (66.67%) |
| The total number of ECTS credits to be earned by a student through courses in the fields of humanities or social sciences | 4 |
| The total number of ECTS credits that a student must obtain from courses related to research conducted at the university, amounting to more than 50% of the total ECTS credits required to graduate from a given level of study | 81/90 (90%) |

## Methods of verifying and assessing learning outcomes

Assessing the learning outcomes achieved requires the use of a variety of assessment methods, appropriate to the categories of knowledge, skills and social competences to which these outcomes relate. The selection of appropriate tools also depends on the specific nature of the course and the format of the classes, and is described in each course description. The achievement of the required learning outcomes is assessed by means of:

1. written work (exams, tests, reports, essays, projects, posters, dissertations, written assessments, etc.),
2. oral presentations (oral knowledge tests, public speaking, e.g. project defence, delivering a paper, presentations, etc.),
3. practical and/or project-based tasks (group and individual),
4. observation and assessment of students' participation during classes,
5. self-assessment and peer assessment by students (particularly in the case of group projects),
6. project defence and discussion preceding the actual assessment of the project
7. competency examination and final examination.

Assessment may be formative (partial, conducted repeatedly during the course) and/or summative (final assessment). The final assessment result is given on the currently applicable grading scale.

For project-based courses, these will be:

- project defence and discussion, which precede the actual assessment. The final mark also takes into account interim work, written examinations and the student's level of creativity;
- an examination in design theory covering not only the subject matter of the project selected within the course but also the subject matter of projects forming part of the course or module;
- in the case of seminars that are thematically linked to the main design course, the primary form of assessment is the presentation and defence of the validity of the assumptions adopted for the architectural design within the scope of the course (structures, services, building physics, etc.). Additional elements for verifying knowledge and skills may include, in this case: a presentation, a knowledge test, an essay, a report or other written work.
- In the case of specialist seminars in the fields of architecture, urban planning, conservation of historic buildings or regeneration, verification and assessment should be based on presentations, written work, and observations and evaluation of the student's participation in classes.

For courses in the history of architecture and courses in the theory of architecture and art, the verification and assessment of learning outcomes will be based on:

- for lectures: a written and/or oral examination;
- for seminars: a presentation, a presentation with defence, a written assignment, and observation and assessment of the student's participation in classes.

For group-based courses or those carried out in groups within the urban planning section (e.g. the module Architectural Design I. Integration of Design Processes (BIM), Urban Design I, Design of Public Buildings, Spatial and Regional Planning, Conservation Project), verification and assessment will be based on:

- for the collaborative part of the project: written assignments and presentation boards,
- for the individual part of the project: project defence and discussion, which will precede the actual assessment of the project.

Obtaining a pass grade is equivalent to achieving the learning outcomes set for the course. The course is credited and entered into the ZSID system by the course lecturer or a person authorised by them.

Furthermore, the verification of the achievement of the intended learning outcomes takes place as a result of classroom observations, which constitute one of the procedural elements of the education quality assurance system and the internal verification of learning outcomes at the course level at the Lodz University of Technology. The systematic observation report includes, amongst other things, documentation of the alignment of the class topics with the course syllabus and the intended learning outcomes, as well as the alignment of the methods used to assess learning outcomes.

The University's Education Quality Committee has also developed and implemented a student survey concerning the evaluation of the entire educational cycle, in which students can express their views on the curriculum and the methods used to assess learning outcomes.

For the Architecture programme, international education standards set out in EU directives also apply (Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005, together with subsequent updates, including the amendments introduced by Directive 2013/55/EU), as well as the recommended international standards of UNESCO and the International Union of Architects (UIA) (UNESCO/UIA Charter for Architectural Education, Tokyo, October 2011, updated in July 2023). These documents set out the key

requirements for establishing the content and problem hierarchy in terms of knowledge, skills and social competences that should be acquired during studies in the field of Architecture.

This allows us to conclude that the learning outcomes for the Architecture and Architecture programmes at the second-cycle level (together with the annex to the aforementioned Regulation of the Ministry of Science and Higher Education on second-cycle characteristics – Annex III: Second-cycle characteristics of learning outcomes for qualifications at levels 6 and 7 of the Polish Qualifications Framework, enabling the acquisition of engineering competences) meet all the requirements of the Polish Qualifications Framework (KRK) for general academic studies. Graduates of the Architecture programme at the Lodz University of Technology acquire full engineering competences entitling them to the title of Master of Science in Architecture – for second-cycle studies.

## Professional internships

Not applicable.

# Characteristics of the course

## Graduate profile

Graduates of this programme are prepared to take up employment in the construction and architectural sectors, both in Poland and abroad. They can pursue careers in architectural practices and engage in professional activities in the fields of architectural and urban design. They can plan their professional development in construction and building supervision, as well as in the interior design sector. Architecture graduates are prepared to collaborate with specialists from other fields: technical, humanities and artistic.

Following a professional internship, graduates may apply for a licence to practise independently in the construction industry without restriction, in the field of architecture. They are also prepared to undertake third-cycle studies.

## The relationship between the field of study and the university's strategy

In accordance with Resolution No. 39/2024 of the Senate of the Lodz University of Technology dated 26 June 2024 on the adoption of the Strategy of the Lodz University of Technology for the years 2025–2030, the university’s mission is to build a sustainable research university with a strong academic community, ensuring freedom of research and discussion as well as modern education, and developing local and global cooperation and innovation for the benefit of society, the economy and the world.

In line with the university’s mission, the Faculty aims to educate highly qualified specialists in the fields of architecture and urban planning, capable of meeting the challenges of the 21st century, particularly in the area of new engineering techniques and technologies, thereby fulfilling, amongst other things, the University’s objectives regarding its impact on the social environment. The skills acquired at the Faculty will enable them to achieve professional success, whilst their knowledge, social competences and ability to engage in lifelong learning will give them an advantage in competing in the labour market.

Acting in accordance with its stated objective, the Faculty of Civil Engineering, Architecture and Environmental Engineering at the Technical University of Łódź has developed an educational concept for the architecture programme, with a focus on a high standard of education and a modern curriculum. It aims to enable graduates to introduce advanced techniques and technologies into engineering practice and to utilise them innovatively. One element of achieving these goals is to increase the coverage of issues related to sustainable development within the curriculum, which is a key objective of the University’s strategy. The Faculty also endeavours to actively collaborate with external and internal stakeholders to respond to both market needs and student requirements.

These activities are closely linked to the University’s objectives regarding education, students and internationalisation.

The Faculty consistently and promptly implements all procedures planned at the Rector’s level to ensure modern and efficient management.

With this in mind, the Faculty’s strategy involves conducting innovative research in collaboration with domestic and foreign universities and research institutions, as well as cooperation with industry. The Faculty also considers the adaptation of education to the needs of the regional labour market to be a strategic objective. This is evidenced by ongoing contact with internal and external stakeholders (entrepreneurs, civil servants, social organisations, associations and professional bodies), with whom the direction of changes in the architecture degree programme is consulted.

## Educational objectives and employment and continuing education opportunities

The primary aim of the programme is to educate graduates – Master of Engineering in Architecture – and prepare them for professional practice. This will enable them to participate competently in activities aimed at shaping the spaces that form the framework of life for individuals and social groups, and to engage in creative professional work across a range of tasks in the fields of architecture and urban planning, the regeneration of urban structures, and the conservation of historic buildings. It will prepare them for working both independently and in teams, as well as for collaborating with specialists from other fields: technical, humanities, natural sciences, economics and the arts; and for coordinating activities within the framework of planning, designing and implementing assigned project tasks. Graduates of this programme with a Master’s degree are prepared for creative engineering work, and after completing a professional internship – to apply for professional qualifications in the field of architecture with unlimited scope, upon obtaining which they will be authorised to practise architecture independently. They also acquire the competence to conduct research in the fields of architecture and urban planning, including the ability to undertake third-cycle studies.

### Description of the process and outcome of consultations on the proposed study program with the socio-economic environment

The program presented in this description—Architecture, full-time seccond-cycle studies—is a revised version of the program previously offered at the Faculty of Civil Engineering, Architecture and Environmental Engineering. It has been adapted to comply with the provisions of the Act of July 20, 2018 – Law on Higher Education and Science (Journal of Laws 2018, item 1668), the Regulation of the Minister of Science and Higher Education of July 18, 2019 on the Education Standards for the Profession of Architect (Journal of Laws 2019, item 1359), and the Resolution of the Senate of Lodz University of Technology of April 20, 2020 concerning the establishment of guidelines for study program councils for the development of first- and second-cycle programs.

The Faculty’s strategy includes conducting innovative research in cooperation with domestic and international universities and research institutions, as well as collaboration with industry. A strategic goal of the Faculty is also to align the education it provides with the needs of the regional labor market. This is evidenced by ongoing communication with both internal and external stakeholders (entrepreneurs, government officials, local authorities, and professional associations), who are consulted on the directions of change in the Architecture program.

Currently, the Institute and Faculty have signed cooperation agreements with a number of external stakeholders, including the Municipal Urban Planning Office, the Łódź Regional Chamber of Architects, and the Łódź Branch of the Society of Polish Town Planners (TUP).

It is worth noting that the Architecture program was subject to consultation in 2019 regarding both general and specialized education. Since the changes introduced primarily concern the modification of existing courses in terms of scope and the inclusion of requirements resulting from the need to align the curriculum with the Education Standards for the Profession of Architect, it can be concluded that the feedback gathered during earlier consultations remains relevant to the current version of the program.

In addition, the Institute authorities are engaged in ongoing cooperation with various administrative units and enterprises. Long-term activities include collaboration with Tubądzin S.A. (student workshops, conferences, study visits, collaboration within educational modules, and support for the Institute's publishing activities), as well as extensive cooperation with several municipalities, including Rzgów, Kolumna, Uniejów, Zadzim, and Sulejów, as well as those associated with the Cittaslow network. Particularly important is the long-standing and wide-ranging collaboration with the City of Łódź in the area of urban revitalization.

As part of its scientific-research and teaching cooperation with domestic and international academic and research institutions, the unit organizes various initiatives such as workshops, conferences, symposia, and research programs. The experience, information, and knowledge gained through these activities have a significant impact on the design of the curriculum and the content of courses delivered.

As part of the consultation process, focus group interviews were conducted with professional representatives, job market requirements were analyzed, and available EU-wide sectoral studies for the architecture profession were taken into account. The program was also developed based on consultations with representatives of professional organizations such as SARP (Association of Polish Architects), TUP (Society of Polish Town Planners), and the Chamber of Architects of the Republic of Poland, which oversees access to the profession in accordance with the Act of December 15, 2000 on Professional Self-Governments of Architects and Civil Engineers. The results of these consultations were incorporated into the development of course content, in accordance with the Regulation of the Minister of Science and Higher Education of July 18, 2019, on the Education Standards for the Profession of Architect.

### Description of competencies expected from a candidate applying for admission to studies

In accordance with the applicable admission resolution for a given academic year.

### The unit organizing education

Faculty of Civil Engineering, Architecture and Environmental Engineering

## Education program

# Semester 1

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Theory of Architectural Design I | Lecture: 30 | 2 | Exam | Obligatory |
| Architectural Design in Downtown Context | Tutorials: 15<br>Project work: 75 | 6 | Graded assignment | Obligatory subjects to choose from |
| Structures in Modern Architecture | Seminar: 5<br>Project work: 15<br>Lecture: 15 | 2 | Graded assignment | Obligatory |
| Selected Issues of Sustainable Design | Project work: 15 | 1 | Graded assignment | Obligatory |
| Modern Technologies and Building Installations in the Context of Sustainable Design | Project work: 15<br>Lecture: 15 | 2 | Graded assignment | Obligatory |
| Integration of Design Processes BIM | Laboratory classes: 45<br>E-learning: 10 | 3 | Graded assignment | Obligatory |
| Strategic and Participatory Planning. Theoretical Basics | Lecture: 30 | 2 | Graded assignment | Obligatory |
| Elective Courses 1 Urban Design | | 6 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| City Centres Design | Tutorials: 15<br>Project work: 60 | 6 | Graded assignment | Optional |
| Historical City. Modernisation and Protection Design | Tutorials: 15<br>Project work: 60 | 6 | Graded assignment | Optional |
| Urban Rehabilitation | Tutorials: 15<br>Project work: 60 | 6 | Graded assignment | Optional |
| Urban Regeneration | Tutorials: 15<br>Project work: 60 | 6 | Graded assignment | Optional |
| Design Theory of Central Areas of Cities | Lecture: 15 | 1 | Exam | Obligatory |

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Urban Regeneration and Cultural Heritage | Lecture: 15 | 1 | Graded assignment | Obligatory |
| Communication and Technical Infrastructure of the City | Lecture: 15 | 1 | Graded assignment | Obligatory |
| Elective Courses 2 Theory of Urban Planning and Cultural Heritage Protection | | 1 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| Seminar. City Centres Design | Seminar: 15 | 1 | Graded assignment | Optional |
| Seminar. Directions in Contemporary Urbanism | Seminar: 15 | 1 | Graded assignment | Optional |
| Seminar. Urban Regeneration and Cultural Heritage | Seminar: 15 | 1 | Graded assignment | Optional |
| Research Methodology | Seminar: 15<br>Lecture: 15 | 2 | Graded assignment | Obligatory subjects to choose from |
| **Sum** | **450** | **30** | | |

# Semester 2

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Theory of Architectural Design II | Lecture: 30 | 2 | Exam | Obligatory |
| Architecture Design of Public Building | Tutorials: 15<br>Project work: 60 | 6 | Graded assignment | Obligatory subjects to choose from |
| Theory of Spatial Development and Local Planning | Lecture: 30 | 2 | Exam | Obligatory |
| Spatial and Regional Planning | Project work: 30 | 2 | Graded assignment | Obligatory subjects to choose from |
| Spatial Planning | Project work: 30 | 2 | Graded assignment | Obligatory |
| Theory of Conservation and Archeology | Lecture: 15 | 2 | Exam | Obligatory |
| Protection of Cultural Heritage | Lecture: 15 | 1 | Graded assignment | Obligatory |

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Conservation Design | Tutorials: 15<br>Project work: 60 | 7 | Graded assignment | Obligatory subjects to choose from |
| Landscape and Natural Environment | Lecture: 15 | 1 | Graded assignment | Obligatory |
| Elective Courses 3 Conservation Seminar | | 1 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| Seminar. Protection of Cultural Heritage | Seminar: 15 | 1 | Graded assignment | Optional |
| Seminar. Traditional Construction Technique | Seminar: 15 | 1 | Graded assignment | Optional |
| Seminar. Theory of Monument Conservation | Seminar: 15 | 1 | Graded assignment | Optional |
| Selected Issues of Contemporary art Theory and Architecture | Seminar: 15<br>Lecture: 15 | 2 | Graded assignment | Obligatory |
| Foreign Language for Specialist Purposes | Tutorials: 45 | 2 | Graded assignment | Obligatory subjects to choose from |
| **Sum** | **405** | **30** | | |

# Semester 3

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Intellectual Property Protection, Technology Transfer and Research Results Commercialization | Lecture: 10 | 1 | Graded assignment | Obligatory |
| Ethics of the Architectural Profession | Lecture: 10 | 1 | Graded assignment | Obligatory |
| Elective Courses 4 Supplementary Courses | | 1 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| Philosophy and Aesthetics | Seminar: 10 | 1 | Graded assignment | Optional |
| Urban Sociology | Seminar: 10 | 1 | Graded assignment | Optional |

| Course | Number of hours | ECTS points | Form of verification | Obligatory |
|---|---|---|---|---|
| Communication and Negotiations | Seminar: 10 | 1 | Graded assignment | Optional |
| History of Art | Seminar: 10 | 1 | Graded assignment | Optional |
| Diploma Seminar | Seminar: 45 | 3 | Graded assignment + exam | Obligatory subjects to choose from |
| Final Project | Diploma Thesis: 0 | 20 | Pass | Obligatory subjects to choose from |
| Specialist Seminar - Integration of Design Processe | Seminar: 15 | 1 | Graded assignment | Obligatory |
| Elective Courses 5 | | 2 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| Architecture Design | Project work: 30 | 2 | Graded assignment | Optional |
| Urban Design | Project work: 30 | 2 | Graded assignment | Optional |
| Conservation Design and Revitalisation | Project work: 30 | 2 | Graded assignment | Optional |
| Elective Courses 6 | | 1 | Graded assignment | Obligatory group |
| Student chooses 1 subject | | | | |
| Architecture Design Seminar | Seminar: 10 | 1 | Graded assignment | Optional |
| Urban Seminar | Seminar: 10 | 1 | Graded assignment | Optional |
| Conservation Seminar | Seminar: 10 | 1 | Graded assignment | Optional |
| **Sum** | **130** | **30** | | |