

Curriculum Details
Master of Architecture Program in Architecture
(Revised Curriculum 2022)

Name of Institution: Silpakorn University
Campus/Faculty/Department: Wang Tha Phra/Faculty of Architecture/Department of Architecture

Number and Title of the Program

Number of the Program: 22500081107575
Title of the Program: Master of Architecture Program in Architecture

Name of Degree and Field of Study

Full name: Master of Architecture (Architecture)
Abbreviation of name: M. Arch. (Architecture)

Major

None

Total Number of Credits

Plan A2 not less than 36 credits
 Plan B not less than 36 credits

Character of the Program

1. **Type of program:** Master's degree

Design Concepts option	Two-year program (may be completed within 1.5 years)
Conservation of Energy and Environment option	Two-year program
2. **Language medium:** Thai and/or English
3. **Student intake:** Thai and foreign students who are able to communicate in Thai and/or English
4. **Collaboration with other institutes:** This program is run exclusively by the organizing institute.
5. **Degree conferred:** Single degree

Career Opportunities after Graduation

1. Architect
2. Lecturer, professor at the level of tertiary education
3. Researcher in public or private organization
4. Other related professions such as consultant in the field of energy conservation for buildings

Objectives of the Program

1. To produce graduates in architecture who possess knowledge in specialized area that may help to enhance the quality of contemporary architecture
2. To increase the number of architectural researches carried out creatively so as to help advance the architectural profession and assist in developing low-carbon and environment-friendly societies
3. To produce graduates who possess ethical qualities in practicing their profession and undertake to constructively foster and develop the society.

Eligibility to Apply

1. Applicants must have completed a 5-year Bachelor's degree program in architecture, or a 4-year program with thesis. Under certain circumstances however, those not meeting such requirement may be admitted to the program at the discretion or approval of the Program Operating Committee.
2. Possess the qualities stipulated under Article 7 of Silpakorn University Graduate Studies Regulations, 2023 and/or subsequent changes thereof.

Number of Credits

Total of not less than 36 credits

Structure of the Curriculum

The Master of Architecture Program in Architecture offers 2 fields of study options: *Design Concepts*, and *Conservation of Energy and Environment*, each with the following study plans to choose from:

(1) Design Concepts option provides 2 choices of study plans

Plan A2

Compulsory courses	a number of	15	credits
Elective courses	not less than	9	credits
Thesis	equivalent to	12	credits
Minimum total of credits throughout the program		36	credits

Plan B

Compulsory courses	a number of	15	credits
Elective courses	not less than	15	credits
Independent Study	equivalent to	6	credits
Minimum total of credits throughout the program		36	credits

- Note:*
- Plan A2 does not require students to take Comprehensive Exam
 - Plan B students are required to take Comprehensive Exam after having studied and passed altogether not less than 18 credits of compulsory and elective courses

(2) Conservation of Energy and Environment option provides 2 choices of study plans

Plan A2

Compulsory courses	a number of	18	credits
Elective courses	not less than	6	credits
Thesis	equivalent to	12	credits
Minimum total of credits throughout the program		36	credits

Plan B

Compulsory courses	a number of	18	credits
Elective courses	not less than	12	credits
Independent Study	equivalent to	6	credits
Minimum total of credits throughout the program		36	credits

Note: - Plan A2 does not require students to take Comprehensive Exam
 - Plan B students are required to take Comprehensive Exam after having studied and passed altogether not less than 18 credits of compulsory and elective courses

Courses

1. Design Concepts group of courses

1.1 Plan A2

Compulsory Courses (15 credits)

261 411	Advanced Architectural Design I	6(1-10-7)
261 412	Advanced Architectural Design II	6(1-10-7)
261 417	Seminar in Architectural Design Research	3(2-2-5)

Elective Courses (not less than 9 credits)

261 410	Research Methodology in Architecture	3(2-2-5)
261 416	Integrated Technology for Buildings	3(3-0-6)
261 430	Individual Study in Architecture	3(1-4-4)
261 431	Seminar in Architecture	3(3-0-6)
261 432	Critical Theory and Design Criticism	3(3-0-6)
261 433	Meaning and Perception in Architecture	3(3-0-6)
261 434	Experimental Design in Architecture	3(3-0-6)
261 435	Advanced Architectural Analysis and Synthesis	3(3-0-6)
261 436	Architecture and Global Cultural Landscape	3(3-0-6)
261 444	Architectural Theory	3(3-0-6)

Apart from the above electives, students may also choose to enroll in any other courses offered by other programs at the Graduate Level, subject to the approval of respective professors responsible for each course, and/or student's academic/Thesis advisor.

Note: Students in the Design Concepts option may enroll in 261 410 Research Methodology in Architecture, which is compulsory for students of Conservation of Energy and Environment, as an elective.

Thesis (equivalent to 12 credits)

261 420	Thesis	equivalent to 12 credits
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1.2 Plan B

Compulsory Courses (15 credits)

261 411	Advanced Architectural Design I	6(1-10-7)
261 412	Advanced Architectural Design II	6(1-10-7)
261 417	Seminar in Architectural Design Research	3(2-2-5)

Elective Courses (not less than 15 credits)

261 410	Research Methodology in Architecture	3(2-2-5)
261 416	Integrated Technology for Buildings	3(3-0-6)
261 430	Individual Study in Architecture	3(1-4-4)
261 431	Seminar in Architecture	3(3-0-6)
261 432	Critical Theory and Design Criticism	3(3-0-6)
261 433	Meaning and Perception in Architecture	3(3-0-6)
261 434	Experimental Design in Architecture	3(3-0-6)
261 435	Advanced Architectural Analysis and Synthesis	3(3-0-6)
261 436	Architecture and Global Cultural Landscape	3(3-0-6)
261 444	Architectural Theory	3(3-0-6)

Apart from the above electives, students may also choose to enroll in any other courses offered by other programs at the Graduate Level, subject to the approval of respective professors responsible for each course, and/or student's academic/Independent Study advisor.

Note: Students in the Design Concepts option may enroll in 261 410 Research Methodology in Architecture, which is compulsory for students of Conservation of Energy and Environment, as an elective.

Independent Study (equivalent to 6 credits)

261 422	Independent Study	equivalent to 6 credits
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2. Conservation of Energy and Environment group of courses

2.1 Plan A2

Compulsory Courses (18 credits)

261 410	Research Methodology in Architecture	3(2-2-5)
261 413	Sustainable Architectural Design I	6(1-10-7)
261 414	Sustainable Architectural Design II	6(1-10-7)
261 415	Energy Conscious Building Design	3(2-3-4)

Elective Courses (not less than 6 credits)

261 416	Integrated Technology for Buildings	3(3-0-6)
261 437	Architecture for the Environment	3(2-2-5)
261 438	Introduction to Building Environment Modeling and Analysis	3(2-2-5)
261 439	Advanced Building Environment Modeling and Analysis	3(2-2-5)
261 440	Low Environmental Impact Building Materials	3(2-2-5)
261 441	Natural Ventilation in Architectural Design	3(2-2-5)

261 442	Lighting in Architecture	3(2-2-5)
261 443	Green Building Rating Systems	3(3-0-6)

Apart from the above electives, students may also choose to enroll in any other courses offered by other programs at the Graduate Level, subject to the approval of respective professors responsible for each course, and/or student's academic/Thesis advisor.

Thesis (equivalent to 12 credits)

261 421	Thesis	equivalent to 12 credits
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2.2 Plan B

Compulsory Courses (18 credits)

261 410	Research Methodology in Architecture	3(2-2-5)
261 413	Sustainable Architectural Design I	6(1-10-7)
261 414	Sustainable Architectural Design II	6(1-10-7)
261 415	Energy Conscious Building Design	3(2-3-4)

Elective Courses (not less than 12 credits)

261 416	Integrated Technology for Buildings	3(3-0-6)
261 437	Architecture for the Environment	3(2-2-5)
261 438	Introduction to Building Environment Modeling and Analysis	3(2-2-5)
261 439	Advanced Building Environment Modeling and Analysis	3(2-2-5)
261 440	Low Environmental Impact Building Materials	3(2-2-5)
261 441	Natural Ventilation in Architectural Design	3(2-2-5)
261 442	Lighting in Architecture	3(2-2-5)
261 443	Green Building Rating Systems	3(3-0-6)

Apart from the above electives, students may also choose to enroll in any other courses offered by other programs at the Graduate Level, subject to the approval of respective professors responsible for each course, and/or student's academic/Independent Study advisor.

Independent Study (equivalent to 6 credits)

261 423	Independent Study	equivalent to 6 credits
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Study Plans

1. Design Concepts option Plan A2

Year 1, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 411	Advanced Architectural Design I	6(1-10-7)
	Electives	3
Total		9

Year 1, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 412	Advanced Architectural Design II	6(1-10-7)
261 417	Seminar in Architectural Design Research	3(2-2-5)
Total		12

Year 2, Semester 1

Course No.	Course Title	Credits (L-P-E)
	Electives	6
Total		6

Year 2, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 420	Thesis (equivalent to)	12
Total		12

Note: may be completed within 1.5 years

1.2 Design Concepts option Plan B

Year 1, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 411	Advanced Architectural Design I	6(1-10-7)
	Electives	6
Total		12

Year 1, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 412	Advanced Architectural Design II	6(1-10-7)
261 417	Seminar in Architectural Design Research	3(2-2-5)
	Electives	3
Total		12

Year 2, Semester 1

Course No.	Course Title	Credits (L-P-E)
	Electives	6
Total		6

Year 2, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 422	Independent Study (equivalent to)	6
Total		6

Note: may be completed within 1.5 years

2.1 Conservation of Energy and Environment option Plan A2

Year 1, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 415	Energy Conscious Building Design	3(2-3-4)
	Electives	6
Total		9

Year 1, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 410	Research Methodology in Architecture	3(2-2-5)
261 413	Sustainable Architectural Design I	6(1-10-7)
Total		9

Year 2, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 414	Sustainable Architectural Design II	6(1-10-7)
261 421	Thesis (equivalent to)	3
Total		9

Year 2, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 421	Thesis (equivalent to)	9
Total		9

2.2 Conservation of Energy and Environment option Plan B

Year 1, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 415	Energy Conscious Building Design	3(2-3-4)
	Electives	6
Total		9

Year 1, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 410	Research Methodology in Architecture	3(2-2-5)
261 413	Sustainable Architectural Design I	6(1-10-7)
Total		9

Year 2, Semester 1

Course No.	Course Title	Credits (L-P-E)
261 414	Sustainable Architectural Design II	6(1-10-7)
	Electives	6
Total		12

Year 2, Semester 2

Course No.	Course Title	Credits (L-P-E)
261 423	Independent Study (equivalent to)	6
Total		6

Course Descriptions

261 410	Research Methodology in Architecture Types of research, case studies, methods and procedures for application in undertaking architectural research work and academic writing.	3(2-2-5)
261 411	Advanced Architectural Design I Studio work in architectural design; emphasis on design process, from gathering and analyzing information, to formulating concepts and synthesizing ideas into architectural design solutions.	6(1-10-7)
261 412	Advanced Architectural Design II Continuation of Advanced Architectural Design I; emphasis on clarity of concept, design process, analytical process, and synthesis of ideas towards final comprehensive architectural design solutions.	6(1-10-7)
261 413	Sustainable Architectural Design I Studio work on sustainable architectural design projects to demonstrate an understanding of principles underlying climate-sensitive design, energy-conscious design and environment-friendly design.	6(1-10-7)
261 414	Sustainable Architectural Design II Continuation of Sustainable Architectural Design I with emphasis on using computer programs for modeling and analyzing environmental influence in the process of building design; computer modeling software for studying heat transfer, air flow, and lighting, as well as simulating energy performance of buildings.	6(1-10-7)
261 415	Energy Conscious Building Design Influence of natural environment and climate on designing of buildings and creating human comfort conditions; thermal property of building materials; passive and active design strategies; natural ventilation for building and environmental design; lighting design using natural and artificial lighting systems. Field trips required.	3(2-3-4)
261 416	Integrated Technology for Buildings Integrating technical systems into the design of buildings; construction technology, services infrastructure, and mechanical equipment; finding economical means of achieving thermal comfort with regards to health and environment; choosing appropriate systems, and making provisions for installation. Field trips required.	3(3-0-6)

261 417	Seminar in Architectural Design Research Types of architectural design research, case studies in architectural design, relationship between research and design, and research application in architectural design.	3(2-2-5)
261 420	Thesis Prerequisite: 261 417 Seminar in Architectural Design Research Individual research on an approved topic of interest relating to conceptual design, carried out under the supervision of an advisor.	equivalent to 12 credits
261 421	Thesis (Thesis) Prerequisite: 261 410 Research Methodology in Architecture Individual research on an approved topic of interest relating to energy and environmental design, carried out under the supervision of an advisor.	equivalent to 12 credits
261 422	Independent Study Prerequisite: 261 417 Seminar in Architectural Design Research Independent study on an architectural topic approved by the course committee carried out under the supervision of an appointed advisor.	equivalent to 6 credits
261 423	Independent Study Prerequisite: 261 410 Research Methodology in Architecture Independent study on an architectural topic approved by the course committee and carried out under the supervision of an appointed advisor.	equivalent to 6 credits
261 430	Individual Study in Architecture Individual study on topic of special interest approved by an advisor.	3(1-4-4)
261 431	Seminar in Architecture Seminar on contemporary architecture, their conceptions, thinking and designing processes; principles and concepts concerning architectural and environmental design.	3(3-0-6)
261 432	Critical Theory and Design Criticism Theory, principles and movements relating to architectural thinking and designing process; changes in socio-cultural paradigms affecting design methods and architectural styles of different periods.	3(3-0-6)

261 433	Meaning and Perception in Architecture	3(3-0-6)
	Understanding philosophy and theory related to meaning of architecture and environment, human nature and habitation; factors affecting human perception and behavior at individual as well as socio-cultural levels, that lead to interactions and implications for architectural design.	
261 434	Experimental Design in Architecture	3(3-0-6)
	Philosophy, theory, and practical approaches to experimental design; developing architectural design and using various types of media to express design concepts.	
261 435	Advanced Architectural Analysis and Synthesis	3(3-0-6)
	Research methodology, analysis, and problem identification; various approaches to design-related research.	
261 436	Architecture and Global Cultural Landscape	3(3-0-6)
	Various creative traditions concerning architecture and landscape of different cultural groups; emergence of design approaches in different civilizations; thinking processes, developments and changes concerning cultural environments in different regions of the world.	
	Field trips required.	
261 437	Architecture for the Environment	3(2-2-5)
	Concept of energy conservation; awareness of architectural designs and environmental impact on building occupants' comfort and wellbeing.	
	Field trips required.	
261 438	Introduction to Building Environment Modeling and Analysis	3(2-2-5)
	Fundamental use of computer programs for modeling and analyzing environmental influence in the process of building design.	
261 439	Advanced Building Environment Modeling and Analysis	3(2-2-5)
	Advanced use of computer programs for modeling and analyzing environmental performance and energy efficiency of buildings for the purpose of architectural research or green building assessment.	
261 440	Low Environmental Impact Building Materials	3(2-2-5)
	Techniques for evaluating material properties in terms of impact on the environment; life cycle assessment and other methods of evaluation; criteria for selecting materials and means of installation to reduce environmental impact.	

- 261 441 Natural Ventilation in Architectural Design 3(2-2-5)**
Principles of natural ventilation for design of buildings in tropical climate to provide thermal comfort and conserve energy; use of computing tools to analyze and model the performance of natural ventilation in buildings.
- 261 442 Lighting in Architecture 3(2-2-5)**
Theories and practice for natural and artificial lighting; use of lighting to enhance architectural design with regards to function, comfort, aesthetic quality, energy consumption and environment.
Field trips required.
- 261 443 Green Building Rating Systems 3(3-0-6)**
International and Thai green building rating systems; elements of green building, criteria and assessment methods; design and construction requirements and process for acquiring green building certification.
- 261 444 Architectural Theory 3(3-0-6)**
Western architectural theory in relation to history, socio-cultural conditions and architectural thinking from Ancient Greek up to present day.