

Curriculum Details
Doctor of Philosophy Program in Architecture
(Revised Curriculum 2020)

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

Number and Title of the Program

Number of the Program: 25580081103401
Title of the Program: Doctor of Philosophy Program in Architecture

Name of Degree and Field of Study

Full name: Doctor of Philosophy (Architecture)
Abbreviation of name: Ph.D. (Architecture)

Major

1. Design Theories and Concepts
2. Conservation of Energy and Environment

Total Number of Credits

Plan 1.1 (for holders of a Master degree)	equivalent of	48	credits
Plan 2.1 (for holders of a Master degree)	not less than	60	credits
Plan 2.2 (for holders of a Bachelor degree)	not less than	72	credits

Character of the Program

1. **Type of program:** Doctoral degree

Plan 1.1	3 years
Plan 2.1	3.5 years
Plan 2.2	4 years
2. **Language medium:** Thai with English encouraged in some courses
3. **Student intake:** Thai and foreign students who are able to communicate in Thai
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 (for those with Bachelor of Architecture degree recognized by the Architect Council)
2. Professor and academician in an institute of tertiary education
3. High level researcher in architecture, related arts and culture, energy conservation, with public or private organization.

Objectives of the Program

1. To produce doctoral degree graduates of architecture who have specialized knowledge beneficial towards raising the creative quality of contemporary architecture
2. To increase the number of advanced level architectural researches carried out systematically so as to help further develop the profession for the betterment of environmentally friendly society
3. To produce graduates with potential to help improve and develop the society through their professional practice, and to produce quality teachers who have profound knowledge and understanding of architecture, and are able to provide clear explanations, objective criticisms, and pass on insightful thoughts.

Eligibility to Apply

1. Applicants must possess one of the qualifications prescribed for each type of study plan as follows:

Plan 1.1

- 1) M.Arch. (Architecture) in Design Concepts or Conservation of Energy and Environment, from Silpakorn University, with good study results of not less than 3.50 grade point average
- 2) M.Arch. in an architectural field with thesis and good study results of not less than 3.50 grade point average

Plan 2.1

- 1) Master of Architecture
- 2) Master's degree with thesis in other related disciplines, subject to consideration at the discretion of the Program Operating Committee

Plan 2.2

Bachelor's degree in architecture with good study results of not less than 3.50 grade point average, subject to consideration at the discretion of the Program Operating Committee

2. Passed English proficiency test at the level specified by the Committee of Higher Education or according to that required by Silpakorn University
3. Possess the qualities stipulated under Article 7 of Silpakorn University Graduate Studies Regulations, 2023 and/or subsequent changes thereof.

Number of Credits

Plan 1.1	equivalent of 48 credits
Plan 2.1	not less than 60 credits
Plan 2.2	not less than 72 credits

Structure of the Curriculum

Plan 1.1 Thesis only (equivalent of 48 credits)

Compulsory courses	non-credit	6 credits
Thesis	equivalent to	48 credits
Total number of credits throughout the program		48 credits

Plan 2.1 Minimum of 60 credits

Compulsory courses	non-credit	6 credits
Compulsory courses	a number of	6 credits
Elective courses	not less than	6 credits
Thesis	equivalent to	48 credits
Minimum total number of credits throughout the program		60 credits

Plan 2.2 Minimum of 72 credits

Compulsory courses	non-credit	6 credits
Compulsory courses	a number of	6 credits
Elective courses	not less than	18 credits
Thesis	equivalent to	48 credits
Minimum total number of credits throughout the program		72 credits

Courses**1. Major in Design Theories and Concepts****Plan 1.1****1) Compulsory Courses (non-credit) 6 credits**

261 710	Architectural History and Theory	3*(2-2-5)
261 711	Architectural Theories	3*(2-2-5)

2) Thesis (equivalent to 48 credits)

261 720	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

Plan 2.1**1) Compulsory Courses (non-credit) 6 credits**

261 710	Architectural History and Theory	3*(2-2-5)
261 711	Architectural Theories	3*(2-2-5)

2) Compulsory Courses (6 credits)

261 712	Seminar in Architectural Theory	3(2-2-5)
261 713	Seminar in Architectural Theory and Environment	3(2-2-5)

3) Elective Courses (not less than 6 credits)

261 415	Integrated Technology for Buildings	3(3-0-6)
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	Tectonic Theory, Architectural Details and Materials	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)

261 437	Green Architecture	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)

Apart from the above electives, students may also choose to enroll in any other courses at the Graduate Level offered by other programs of the University, given the approval of student's advisor.

4) Thesis (equivalent to 48 credits)

261 721	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

Plan 2.2

1) Compulsory Courses (non-credit) 6 credits

261 710	Architectural History and Theory	3*(2-2-5)
261 711	Architectural Theories	3*(2-2-5)

2) Compulsory Courses (6 credits)

261 712	Seminar in Architectural Theory	3(2-2-5)
261 713	Seminar in Architectural Theory and Environment	3(2-2-5)

3) Elective Courses (not less than 18 credits)

261 415	Integrated Technology for Buildings	3(3-0-6)
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	Tectonic Theory, Architectural Details and Materials	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)
261 437	Green Architecture	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)

Apart from the above electives, students may also choose to enroll in any other courses at the Graduate Level offered by other programs of the University, given the approval of student's advisor.

4) Thesis (equivalent to 48 credits)

261 722	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

2. Major in Conservation of Energy and Environment

Plan 1.1

1) Compulsory Courses (non-credit) 6 credits

261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)

2) Thesis (equivalent to 48 credits)

261 720	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

Plan 2.1

1) Compulsory Courses (non-credit) 6 credits

261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)

2) Compulsory Courses (6 credits)

261 716	Fundamentals for Advanced Research in Architecture and Environment	3(2-2-5)
261 717	Statistics for Architectural Research	3(2-2-5)

3) Elective Courses (not less than 6 credits)

261 415	Integrated Technology for Buildings	3(3-0-6)
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	Tectonic Theory, Architectural Details and Materials	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)
261 437	Green Architecture	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)

Apart from the above electives, students may also choose to enroll in any other courses at the Graduate Level offered by other programs of the University, given the approval of student's advisor.

4) Thesis (equivalent to 48 credits)

261 721	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

Plan 2.2**1) Compulsory Courses (non-credit) 6 credits**

261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)

2) Compulsory Courses (6 credits)

261 716	Fundamentals for Advanced Research in Architecture and Environment	3(2-2-5)
261 717	Statistics for Architectural Research	3(2-2-5)

3) Elective Courses (not less than 18 credits)

261 415	Integrated Technology for Buildings	3(3-0-6)
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	Tectonic Theory, Architectural Details and Materials	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)
261 437	Green Architecture	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)

Apart from the above electives, students may also choose to enroll in any other courses at the Graduate Level offered by other programs of the University, given the approval of student's advisor.

4) Thesis (equivalent to 48 credits)

261 722	Thesis	equivalent to 48 credits
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Note: * denotes non-credit courses that are evaluated in terms of S or U

Study Plans

1. Major in Design Theories and Concepts

Plan 1.1

Year 1 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 710	Architectural History and Theory	3*(2-2-5)
261 720	Thesis (equivalent to)	9
Total		9

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 711	Architectural Theories	3*(2-2-5)
261 720	Thesis (equivalent to)	9
Total		9

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	9
Total		9

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	9
Total		9

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	6
Total		6

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	6
Total		6

Note: * denotes non-credit courses that are evaluated in terms of S or U

*Major in Design Theories and Concepts (continued)***Plan 2.1****Year 1 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 710	Architectural History and Theory	3*(2-2-5)
261 712	Seminar in Architectural Theory	3(2-2-5)
	Elective	3
Total		6

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 711	Architectural Theories	3*(2-2-5)
261 713	Seminar in Architectural Theory and Environment	3(2-2-5)
	Elective	3
Total		6

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	12
Total		12

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
Total		9

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
Total		9

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
Total		9

Year 4 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
Total		9

*Major in Design Theories and Concepts (continued)***Plan 2.2****Year 1 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 710	Architectural History and Theory	3*(2-2-5)
261 712	Seminar in Architectural Theory	3(2-2-5)
	Elective	6
Total		9

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 711	Architectural Theories	3*(2-2-5)
261 713	Seminar in Architectural Theory and Environment	3(2-2-5)
	Electives	6
Total		9

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Elective	3
Total		12

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Elective	3
Total		12

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
Total		9

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
Total		9

Note: * denotes non-credit courses that are evaluated in terms of S or U

*Major in Design Theories and Concepts (Plan 2.2 continued)***Year 4 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	6
	Total	6

Year 4 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	6
	Total	6

2. Major in Conservation of Energy and Environment

Plan 1.1

Year 1 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 720	Thesis (equivalent to)	9
Total		9

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)
261 720	Thesis (equivalent to)	9
Total		9

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	9
Total		9

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	9
Total		9

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	6
Total		6

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 720	Thesis (equivalent to)	6
Total		6

Note: * denotes non-credit courses that are evaluated in terms of S or U

*Major in Conservation of Energy and Environment (continued)***Plan 2.1****Year 1 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 716	Fundamentals for Advanced Research in Architecture and Environment	3(2-2-5)
	Elective	3
	Total	6

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)
261 717	Statistics for Architectural Research	3(2-2-5)
	Elective	3
	Total	6

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	12
	Total	12

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
	Total	9

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
	Total	9

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
	Total	9

Year 4 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 721	Thesis (equivalent to)	9
	Total	9

*Major in Conservation of Energy and Environment (continued)***Plan 2.2****Year 1 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 714	Seminar in Energy and Environmental Conservation I	3*(2-2-5)
261 716	Fundamentals for Advanced Research in Architecture and Environment	3(2-2-5)
	Electives	6
	Total	9

Year 1 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 715	Seminar in Energy and Environmental Conservation II	3*(2-2-5)
261 717	Statistics for Architectural Research	3(2-2-5)
	Electives	6
	Total	9

Year 2 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Elective	3
	Total	12

Year 2 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Elective	3
	Total	12

Year 3 Semester 1

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Total	9

Year 3 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	9
	Total	9

*Major in Conservation of Energy and Environment (Plan 2.2 continued)***Year 4 Semester 1**

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	6
	Total	6

Year 4 Semester 2

Course No.	Course Title	Credits (L-P-E)
261 722	Thesis (equivalent to)	6
	Total	6

Note: * denotes non-credit courses that are evaluated in terms of S or U

Course Descriptions

261 415	Integrated Technology for Buildings	3(3-0-6)
	Integrating technical systems into the design of buildings; construction technology and mechanical equipment; finding economical means of achieving thermal comfort with regards to health and environment; choosing appropriate systems and making provisions for installation that are efficient and in harmony with the building and site.	
	Field trips required.	
261 431	Seminar in Architecture	3(3-0-6)
	Seminar on contemporary architecture, their conceptions, thinking and designing processes; principles and concepts concerning architectural and environmental design.	
261 432	Critical Theory and Design Criticism	3(3-0-6)
	Theory, principles and movements related to architectural thinking and designing process; changes in socio-cultural paradigms affecting design methods and architectural styles of different periods.	
261 433	Meaning and Perception in Architecture	3(3-0-6)
	Understanding philosophy and theory in meaning of architecture and dwellings, human nature and architecture; factors affecting human perception and behavior at individual as well as socio-cultural levels of interaction and implications for architectural design.	
261 434	Tectonic Theory, Architectural Details and Materials	3(3-0-6)
	Philosophy, theory, and practical approaches to the art of construction; developing architectural details and using various types of materials 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; design approaches adopted by different civilizations; thinking process, developments and changes concerning the cultural environment in different regions of the world.	
	Field trips required.	
261 437	Green Architecture	3(2-2-5)
	Concept of energy conservation, environmental awareness in architectural design, and comfort and wellbeing of building occupants.	
	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)**
 Theory and 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 strategies in buildings.
- 261 442 Lighting in Architecture 3(2-2-5)**
 Theories and practice for natural and artificial lighting; use of lighting to enhance architecture with regards to function, comfort, aesthetic quality, energy consumption and environment.
 Field trips required.
- 261 710 Architectural History and Theory 3(2-2-5)**
Non-credit course with evaluation in terms of S or U
 Architectural history, theories and concepts from Greek to Neoclassic periods; comparing architectural designs of different periods; analysis and comparative methods for studying architecture of each period, focusing on the relationship between history and theory of architecture.
- 261 711 Architectural Theories 3(2-2-5)**
Prerequisite: 261 710 Architectural History and Theory
Non-credit course with evaluation in terms of S or U
 Architectural theories and concepts from Neoclassic to Contemporary periods; analysis and comparative methods for studying architecture of each period, focusing on the relationship between theory and practice.

- 261 712 Seminar in Architectural Theory 3(2-2-5)**
 Make inquiries through use of information technology; presentation and discussion of topics studied, together with literature reviews concerning architectural theories and concepts.
- 261 713 Seminar in Architectural Theory and Environment 3(2-2-5)**
 Make inquiries through use of advanced information technology; presentation and discussion of topics studied, together with literature reviews concerning architectural and environmental theories and concepts.
- 261 714 Seminar in Energy and Environmental Conservation I 3(2-2-5)**
Non-credit course with evaluation in terms of S or U
 Make inquiries through use of information technology; presentation and discussion of topics studied, together with literature reviews concerning energy and environmental conservation in buildings.
- 261 715 Seminar in Energy and Environmental Conservation II 3(2-2-5)**
Prerequisite: 261 714 Seminar in Energy and Environmental Conservation I
Non-credit course with evaluation in terms of S or U
 Inquiry, discussion and evaluation of research methodology concerning energy conservation in buildings.
- 261 716 Fundamentals for Advanced Research in Architecture and Environment 3(2-2-5)**
 Preparing research proposal; use of information technology for gathering, processing and analyzing data; writing reports and articles; techniques for presentation and discussion of findings and results; preparing papers and articles for publication in local and international journals.
- 261 717 Statistics for Architectural Research 3(2-2-5)**
 Using statistics in architectural research; variables and hypothesis; research design; data collection and analysis; descriptive statistics; inference statistics; choosing appropriate statistical test for architectural research; analysis and interpretation of data; application of statistical software package.
- 261 720 Thesis equivalent to 48 credits**
 Individual research on a topic relating to architecture and environment carried out systematically to produce new knowledge under the supervision of a thesis supervisor.
- 261 721 Thesis equivalent to 48 credits**
 Individual research on a topic relating to architecture and environment carried out systematically to produce new knowledge under the supervision of a thesis supervisor.

261 722

Thesis**equivalent to 48 credits**

Individual research on a topic relating to architecture and environment carried out systematically to produce new knowledge under the supervision of a thesis supervisor.