

COURSE DESCRIPTIONS
Bachelor of Architecture (Thai Architecture)
(Five-year professional degree program)
(Revised Curriculum 2003)

DEPARTMENT OF ARCHITECTURE

Core Courses

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| 261 101 | Basic Design | 3(1-6-2) |
| Studio course in basic principles of design composition using elements such as points, lines, directions, shapes and forms so as to develop students' understanding of aesthetics for two and three dimensional designs. | | |
| 261 102 | Architectural Design I | 4(2-6-4) |
| Prerequisite: 261 101* Basic Design | | |
| Studio course in design of space–form and their interrelationship taking into consideration design aesthetics, human scale, and other fundamental factors. | | |
| 261 103 | Architectural Design II | 4(2-6-4) |
| Prerequisite: 261 102* Architectural Design I | | |
| Studio course in design of architectural space–form in relation to their uses and climatic environment. | | |
| Includes study visits. | | |
| 261 104 | Architectural Design III | 4(2-6-4) |
| Prerequisite: 261 103* Architectural Design II | | |
| Studio course in design of architectural space, form, and layout in relation to their uses, climate, and physical surroundings. | | |
| Includes study visits. | | |
| 261 203 | Architectural Training | (non-credit) |
| Having passed and accumulated a minimum of 125 credits by the end of the 4th year, students undertake training with an architectural firm or government agency that has an architectural department for a period of not less than 210 hours or the equivalent, during the summer recess. Assessments will be made on the basis of satisfactory/unsatisfactory performance. | | |



- 261 205 Architectural Practice 3(3-0-6)
Study the principles of architectural practice, office management, project management, regulations, contract documentation, providing professional service, ethics, and relationship with other professions.

Elective courses

Diploma level

- 261 105 Architecture and Environment 3(2-2-5)
Study the influence of the natural environment on architecture and human comfort zone. Implications for the design of buildings that could effectively control the environment, taking into consideration the use of natural energy and energy conservation.
- 261 108 Architectural Presentation 3(1-4-4)
Studio course in architectural presentation using various media and techniques with emphasis on developing personal skills. Involves fieldwork.
- 261 109 Interior Architecture 3(2-2-5)
Study and exercises in design of architectural interiors; establishing suitable volume for spaces and installation of furniture to serve user behavior; design of decor to suit building types; consider related aspects such as colors, materials, patterns, lighting, and furniture design. Includes study visits.

Elective courses

Degree level

- 261 208 Architectural Theories and Concepts 3(3-0-6)
Look at different theories, philosophical thoughts and concepts as well as methods, means and approaches taken from past and present examples that have influence on the diversity of architectural interpretations. Interrelationship with other art fields, technology, and socio-cultural factors affecting creativity, the search for a standpoint, and the trends in architectural movements.
- 261 209 Seminar in Contemporary Architecture 3(2-2-5)
Discussions on developments in contemporary architecture with emphasis on architecture in Thailand whilst taking the urban context, economic and social issues into consideration.



- 261 210 Project Planning and Real Estate Finance 3(3-0-6)
 Study about project planning and financing, making feasibility studies and gathering relevant information for decision making in the architectural design process as well as making investment decisions for real-estate finance.
- 261 211 Architectural Programming 3(2-2-5)
 Students learn about preparing a design program and how it is related to the design process. Includes methods in collecting and analyzing data, establishing user requirements, drawing up a program and proposing terms of reference.
- 261 212 Laws and Regulations in Architecture 3(3-0-6)
 Study and understand the principles of architectural laws and regulations related to design of buildings, urban planning, energy and environment, land division, condominium, as well as professional and other related acts.
- 261 213 Architectural Design in Conservation Areas 3(3-0-6)
 Study the processes involved in the conservation of architecture and sites in connection with designing new buildings so as to produce contemporary architecture appropriate to the existing context.
 Includes site visits.
- 261 214 Applied Photography in Architectural Presentation 3(2-3-4)
 Study the basic principles and mechanisms of a camera; the use of photographic tools; identifying and classifying different types of photographs; creating documentary photographs and composition; methods for designing photo-montage; and collage techniques for architectural presentation.
- 261 215 Building Design Analysis 3(3-0-6)
 Analysis of the design of buildings concerning the design process, building structure, building services such as electrical, plumbing and other systems; construction process and design-related problems.
 Includes study visits.
- 261 216 Individual Study in Architecture 3(1-4-4)
 Students choose a topic of interest and carry out their own study under the guidance of a supervisor.



DEPARTMENT OF RELATED ARTS IN ARCHITECTURE

Core Courses

- 262 101 Basic Delineations 3(2-2-5)
Introduces the use of technical drawing instruments and practical applications. Students learn to draw objects of various shapes and sizes as well as basic Thai architectural elements. Fundamental principles and exercises in perspective drawing of spaces and forms, projection of shades and shadows, and rendering techniques to illustrate atmosphere in presentation work.
- 262 102 Drawing and Painting 3(1-4-4)
Students learn to develop skills in the use of drawing pencils, ink, and colors. Includes drawing outdoors on location, and application of rendering techniques to express ideas in architectural presentation.
- 262 103 History of Thai Architecture I 3(2-2-5)
Study of architecture in Thailand from Draravati period (6th-10th century) to Early Rattanakosin period (19th century). Attention is given to the influences of ancient civilizations, which affected the Southeast Asian region.
Includes study visits.
- 262 104 History of Thai Architecture II 3(2-2-5)
Study the history of architecture in Thailand from the period of King Mongkut, or Rama IV (1851-1868), to the present day in terms of style and cultural influences affecting Thai architectural characteristics.
- 262 105 Thai Architectural Design I 4(2-6-4)
Look at the beliefs and practices associated with building domestic and vernacular architecture according to each region of Thailand. Emphasis on proportion, styles, materials and structure in design applications. Studio exercises in design and drafting.
Includes study visits.
- 262 106 Thai Traditional Arts and Crafts 3(2-2-5)
Study the background of traditional arts and crafts used in Thai architecture such as lime stucco, wood carving, mirrored glass mosaic, mother of pearl inlay, lacquered and gilded ornamentation for example, so as to understand the interrelationship between such work and architecture, as well making appropriate choices for their applications.



- 262 107 Drawing of Thai Ornammentation 3(1-4-4)
Study the origin and derivation of Thai ornamental patterns and structure of their designs. Exercises in creating, drawing and delineation.
- 262 108 Thai Architectural Design II 4(2-6-4)
Prerequisite: 262 105* Thai Architectural Design I
Study ideologies, concepts and construction of traditional religious architecture in Thailand. Emphasis on forms, proportion, structure, architectural elements and materials. Application of such to design and drafting exercises.
Includes study visits.
- 262 110 History of Architecture from Neoclassicism to Modernism 3(3-0-6)
Study the development of western architecture from the neo-classic period of the 18th century to the period of the modern movement in the first half of the 20th century and subsequent developments to the end of the century.
- 262 111 Principles of Thai Architecture 3(1-4-4)
Look at factors influencing styles in Thai Architecture and character of different types of buildings from residential to religious such as houses, temples, chapels, pagodas, stupas, etc. in terms of planning and details.
- 262 201 Thai Architectural Design III 5(2-9-4)
Prerequisite: 262 108* Thai Architectural Design II
Study the concepts and identity of Thai architecture in order to develop and apply them to architectural design for contemporary use. Takes into consideration technical aspects such as structure, construction methods, building service systems and environmental conditions. Application of such to design and drafting exercises.
Includes study visits.
- 262 202 Thai Architecture Conservation Field Work Training 3(0-6-3)
This course focuses on the process of documenting historical buildings for the purpose of conserving national art and culture, together with assignments in measured drawing. A study of modern theories and principles in architectural conservation is included.



- 262 203 Thai Architectural Design IV 5(2-9-4)
 Prerequisite: 262 201* Thai Architectural Design III
 Study the concepts and identity of Thai architecture in order to develop and apply them to the design of public buildings serving large number of users. Takes into consideration factors relating to economy, society, technology, construction and structural systems as well as environmental context. Application of such to design and drafting exercises.
 Includes study visits.
- 262 204 Order and Proportion in Thai Architecture 3(2-2-5)
 Study and analysis of Thai Architectural designs, concepts and methods of creativity based on tradition, culture, social integration and crafting techniques. Case studies are also looked at.
- 262 205 Thai Architectural Design V 5(2-9-4)
 Prerequisite: 262 203* Thai Architectural Design IV
 Study the concepts and identity of Thai architecture in order to apply to the design of contemporary Thai architecture and site planning appropriate to social and economic aspects of community environment. Application of such to design and drafting exercises.
 Includes study visits.
- 262 206 Seminar in Thai Architecture 3(2-2-5)
 Discussions on various topics concerning Thai architecture, particularly in issues relating to concepts in design, aims and intentions, problems and obstacles relevant to each case. Written reports are required at the end of the debates.
- 262 207 Thesis Preparation 3(0-6-3)
 Prerequisite: 261 203* Architectural Training
 The course is aimed at information gathering and analysis by each student in an approved topic in order to set up a program for the final architectural design project to be undertaken in the Thesis course.



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| 262 208 | Thesis | 9(0-18-9) |
| | Prerequisites: 262 207* Thesis Preparation and accumulated a minimum of 140 credits | |
| | This architectural design course follows the approved program formulated in the Thesis Preparation course. The final designs are required to express Thai characteristics and be in harmony with local art and culture context. The thesis is undertaken individually and conducted under the supervision of appointed advisors and committee. | |

Elective courses

Diploma level

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| 262 109 | History of Architecture from Egypt to Baroque | 3(3-0-6) |
| | This course looks at the developments in western architecture from prehistory to the Baroque period in the 18 th century. | |
| 262 112 | Contemporary Visual Art | 3(2-3-4) |
| | A study of contemporary visual art focusing on the exploration of new techniques and experimentation in creating new art forms. | |
| 262 113 | Model Replica of Building | 3(1-4-4) |
| | Study the methods of collecting and documenting architectural information according to the process involved in architectural conservation with practical exercise culminating in drafting and making model replica of selected building/s. Includes study visits. | |
| 262 114 | Delineations in Thai Architecture | 3(1-4-4) |
| | Studio drawing course concentrating on delineation of various types of Thai architecture dealing with style, structure, and details which are used for the purpose of construction. | |
| 262 115 | Thai Ornaments in Architecture | 3(1-4-4) |
| | A study of the developments in Thai style ornamental patterns and analysis of their applications in Thai architecture. Students learn to develop skills in designing patterns and motifs for decorative purposes. | |



Elective courses

Degree level

- 262 209 History of Architecture in China and Japan 3(3-0-6)
A study of historical developments in architecture and landscape architecture of China and Japan from past to present.
- 262 210 Photography in Architecture 3(2-2-5)
Study the use of different photographic equipments and instruments, lighting, composition, and techniques in photographing architecture, as well as the process involved in developing, printing, and enlarging photographs.
Includes study visits.
- 262 211 Individual Study in Thai Architecture 3(1-4-4)
Students choose a topic of interest in the area of Thai architecture and conduct their own study under the guidance of a supervisor.
- 262 212 Group Study in Thai Architecture 3(1-4-4)
Students form teams and choose topic of interest in the area of Thai architecture and conduct their own study as a group under the guidance of assigned supervisor/s.

DEPARTMENT OF ARCHITECTURAL TECHNOLOGY

Core Courses

- 263 101 Materials and Construction I 3(2-3-4)
Study of the properties and uses of various different building materials. Introduction to methods of construction for small building structures with exercises in working drawings.
Includes study visits.
- 263 102 Mathematics 3(3-0-6)
Fundamental course dealing with calculus of functions, differentiation, integration, and constants, with practical applications.
- 263 103 Materials and Construction II 3(2-3-4)
Prerequisite: 263 101**Materials and Construction I
Study of the properties and uses of building materials that are products of the industrial process. Further study of construction methods for small building structures with exercises in working drawings.
Includes study visits.



- 263 104 Construction I 3(2-3-4)
 Prerequisite: 263 103 *Materials and Construction II
 Study the techniques of construction, joint details and components for small building structures using wood and other materials. Basic building service systems for small scale buildings with exercises in working drawings.
 Includes study visits.
- 263 105 Structures I 3(3-0-6)
 Prerequisite: 263 102 **Mathematics
 Study the properties of structural material and components under acting forces. Look at the definition and theories of different units of forces. A study of different structural systems and how they work. Acting loads, load transfer, structural stability, causes of damage and failure, suitability and soundness of structural designs, and design by rough estimation.
- 263 106 Construction II 3(2-3-4)
 Prerequisite: 263 104 *Construction I
 Study of construction techniques for reinforced concrete structures and methods for dealing with different parts of the building in different situations with exercises in working drawings.
 Includes study visits.
- 263 107 Construction III 3(2-3-4)
 Prerequisite: 263 106* Construction II
 Study the construction methods for steel and metal building structures and methods for dealing with different parts of the building for different situations with exercises in working drawings.
 Includes study visits.
- 263 108 Structures II 3(3-0-6)
 Prerequisite: 263 102** Mathematics
 Application of statistics for simple structural analysis, calculating loads and reaction forces, bending moments, shear force, etc. Drawing shear diagrams and bending moment diagrams. Look at the various structural components reacting under external forces.



- 263 110 Mechanical Equipment 3(3-0-6)
 Study the design principles for lighting, plumbing and drainage systems. Working of air conditioning systems. Study the fundamentals of good acoustic design for buildings.
- 263 201 Structures III 3(3-0-6)
 Prerequisite: 263 108* Structures II
 Principles of design for various components of timber-frame structures, steel structures, and reinforced concrete structures.

Elective Courses

Diploma level

- 263 109 Construction IV 3(2-3-4)
 Prerequisite: 263 107* Construction III
 Study the construction of high rise buildings and complexes. Structural systems and building service systems with exercises in working drawing, documentation and specification writing.
 Includes study visits.
- 263 111 Concrete Technology in Architecture 3(2-2-5)
 Study methods involved in choosing materials and aggregates used in forming concrete, preserving mixture, calculating mixture ratio, boxing, pouring and curing methods; design for special textural effects, and pre-casting.
- 263 112 Computer in Architecture 3(2-3-4)
 Fundamentals, and use of computer and software for architectural design and presentation.
- 263 113 Architectural Finishings 3(3-0-6)
 Study of materials and construction methods for architectural finishings such as terrazzo, gravel, ceramic tiles; painting, molding, plastering and grooving, floor and wall texturing etc. Drawing up details and specifications for finishings. How to apply finishings to design components in terms of line, color, texture, and proportion.



Elective Courses

Degree level

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| 263 205 | Cost Estimation | 3(2-2-5) |
| | Study of basic principles for estimating construction cost. Standard rates for construction and labor. Quantity surveying of materials and equipments. Maintaining cost control and bidding. | |
| 263 206 | Construction Management | 3(3-0-6) |
| | Study issues involved in construction management planning, management tools and decision making. Look at the relationship between architects, engineers and other related professions. | |
| 263 207 | Computer Aided Architectural Design I | 3(2-3-4) |
| | Prerequisite: 263 112* Computer in Architecture Study the application of computer in architectural drawings. Performance standards and systemizing drawings. | |
| 263 208 | Computer Aided Architectural Design II | 3(2-3-4) |
| | Prerequisite: 263 207* Computer Aided Architectural Design I Study methods for creating 3D modeling and 3D visualization. This course emphasizes on the application of computer in studying architectural spaces and forms. | |
| 263 209 | Individual Study in Computer Application in Architecture | 3(1-4-4) |
| | Prerequisite: 263 207* Computer Aided Architectural Design I Application of CAD software to an architectural design project of individual student's interest. | |

DEPARTMENT OF URBAN DESIGN AND PLANNING

Core Courses

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| 264 101 | Site Planning | 3(2-3-4) |
| | Study the process and factors involved in site planning together with exercises in design relating to architectural projects. | |



- 264 201 Landscape Architecture 3(2-2-5)
 Prerequisite: 264 101 Site Planning**
 Study in landscape design and its interrelationship with architecture and site planning taking the natural environment, ecology, and human behavior into consideration. Studio exercises in site planning or designing groups of buildings that integrates architecture and landscape.
 Includes study visits.
- 264 203 Introduction to Urban Planning 3(3-0-6)
 Look at the role, importance, and purpose of urban planning, process and methods involved, as well as the implementation of plans. Learn about landuse, traffic, transportation, infrastructure, and environment so as to understand the workings of the urban system.
 Includes study visits.

Elective Courses

- 264 202 Evolution of Human Settlements 3(3-0-6)
 Look at the setting up of settlements from past to present, factors affecting urban changes, and effects of socioeconomic changes on the development of urban physical characteristics.
- 264 204 Design and Ecosystem 3(2-2-5)
 Look at the importance of the ecosystem, its balance and interrelationship with Man, and designing architecture in the ecological context.
- 264 205 Design for Sustainable Environment 3(2-2-5)
 Look at the concept of sustainable development and its application to environmental design at the scale of the city, community, and specific project site.
- 264 206 Environment and Human Behavior 3(3-0-6)
 Study the structure of the relationship between humans and the physical environment; perception and cognition of the environment; territoriality, interpersonal space, and defensible space behaviors.
- 264 207 Universal Design 3(2-2-5)
 Study with exercises in the design of buildings and surroundings that facilitate use and access for the physically handicapped or disabled.



264 208 Individual Study in Landscape Architecture and Urban Design 3(1-4-4)
Students choose a topic of interest concerning landscape architecture and urban design, and carry out the study individually under the guidance of assigned supervisor.

Faculty of Architecture

265 101 English for Architecture 1 3(2-2-5)
Prerequisite: 080 178** English 2
English readings and conversation in architecture and related fields. Students also learn to write summary of important points in preparing for presentation of work. Includes discussion of ideas and expressing opinions in English.

265 102 English for Architecture 2 3(2-2-5)
Prerequisite: 265 101** English for Architecture 1
English readings and conversation in architecture and related fields. Students learn to write abstract, synopsis, articles and reports as well as systematic way of documenting sources of reference in English.

