

261 105 Architecture and Environment 3(2-2-5)

Influence of the natural environment on architectural design and human comfort zone. Implications for the design of buildings that could effectively control the environment and conserve energy by natural means.

261 106 Architectural Design IV 5(2-9-4)

Prerequisite: 261 104* Architectural Design III

Studio course in designing medium scale public buildings; organizing relationship between functions; issues concerning architectural character, shape and size of site, environment, continuity and flow of spaces, circulation patterns for internal and external spaces as well as adjacent areas; building codes, structure, construction, and building services systems.

Includes study visits.

261 107 Architectural Design V 5(2-9-4)

Prerequisite: 261 106* Architectural Design IV

Studio course in designing medium to large or extra-large scale public buildings; organizing relationship between functions; issues concerning architectural character, shape and size of site, environment, continuity and flow of spaces, circulation patterns for internal and external spaces as well as adjacent areas; building codes, structure, construction, and building services systems. Extension of 261 106.

Includes study visits.

261 108 Architectural Presentation II 3(1-4-4)

Studio course in architectural presentation using various media and techniques with emphasis on developing individual skills.

Includes study visits.



261 109 Interior Architecture 3(2-2-5)

Design fundamentals for small scale architectural interiors; design of spaces, planes and forms; use of colors; lighting design; selecting materials and types of construction; suitable furniture arrangements to serve basic functional requirements; creating atmosphere and moods to convey certain meanings; using design as an instrument to create spaces that stimulate social interactions.

Includes study visits.

261 110 Model Making 3(2-2-5)

Thinking process and practical means for making architectural models; using study models in the design development process.

261 111 Community Architecture 3(2-2-5)

Basic theory and concept for designing community architecture. Use of architectural design process as a tool for creating sense of community and encouraging human interactions. Using design knowledge as a strategy in developing housing and community projects for people of all status.

Includes study visits.

261 201 Architectural Theories and Concepts 3(3-0-6)

Theories, philosophical thoughts and concepts of various ideological groups; past and present examples of means, approaches and points of view that have influence on the diversity of architectural interpretations; developments in related fields and aspects associated with architectural creativity such as art, culture, technology, and society; searching for a standpoint; architectural trends and movements.



261 202 Architectural Design VI 5(2-9-4)

Prerequisite: 261 107* Architectural Design V

Studio course in designing large and extra-large scale buildings or building complex requiring unique identity and structure with long span; finding information with regards to area requirements, building codes, building services infrastructure and structural systems; making site analysis and exploring design alternatives; application of knowledge and creativity in the process of synthesizing individual design solution; emphasis on design concept, integration of technical systems, and contextual harmony.

Includes study visits.

261 203 Architectural Design VII 5(2-9-4)

Prerequisite: 261 202* Architectural Design VI

Studio course in designing site plan, master plan and buildings for projects with multiple functions and large number of users such as high-rise buildings and community-type complex; establishing the requirements and scope of the project, taking into account building codes, building services infrastructure, and structural options; finding suitable site and carrying out site analysis; practice working in teams throughout the design process in order to produce suitable design solutions for community-type project. Emphasis on creativity in problem-solving and designing in response to various contextual aspects.

Includes study visits.

261 204 Studies of Pre-design Services 3(3-0-6)

Carrying out studies to assist developers in making decisions before engaging in design-stage commitments; selecting project site; related laws and standards. Techniques for collecting data and making analyses with regards to site planning and building design. Factors determining size and quality of the project such as economic feasibility, market potential and environmental constraints; developing terms of reference and conditions for writing up design contract.



261 205 Architectural Training (non-credit)

Students undergo training with an architectural firm or government agency, after having passed and accumulated a minimum of 125 credits, for a period of not less than 210 hours or the equivalent during the summer recess at the end of the 4th year. Assessments will be made on the basis of satisfactory/unsatisfactory performance.

261 206 Architectural Design VIII 5(2-9-4)

Prerequisite: 261 203* Architectural Design VII

Studio course in design dealing with architecture in the context of the community that is undergoing economic, social and cultural developments as well as natural environmental changes; producing architectural design solutions for sustainable urban community.

Includes study visits.

261 207 Architectural Practice 3(3-0-6)

Principles and ethics concerning the architectural profession; related laws and legislations; establishing and managing an office; providing professional services; contract documentation; project management, construction management, and dealing with people of other related professions.

261 208 Thesis Preparation 3(0-6-3)

Prerequisites: 261 203* Architectural Design VII

261 204* Pre-Design Study Service

261 205* Architectural Training

Students prepare terms of reference through systematic analytical process and write up a program for a design project to be carried out in the following thesis course.



261 209 Thesis 9(0-18-9)

Prerequisites: 261 201** Architectural Theories and Concepts

261 206* Architectural Design VIII

261 208* Thesis Preparation

Passed and accumulated a minimum of 140 credits

Students carry out design work for approved project proposed at the end of Thesis Preparation course, under the advice of assigned supervisors and assessors.

261 210 Seminar in Contemporary Architecture 3(2-2-5)

Discussions on developments in contemporary architecture with emphasis on architecture in Thailand; issues also include economic and social factors related to urban and community environment.

261 211 Building Environment Simulation 3(2-2-5)

Use of various computer programs for modelling and analyzing environmental influences affecting the design of buildings; topics include lighting, temperature, ventilation and acoustics; exercises in using simulation software to assist in designing and understanding environmental design theory; making most efficient use of available simulation software.

261 212 Laws and Regulations in Architecture 3(3-0-6)

Principles of architectural laws and regulations governing the design of buildings; analyses and applications for use in professional practice.

261 213 Building Design Analysis 3(3-0-6)

Analyzing the design of buildings based on design process and concepts of the designers together with their form-creating techniques; comparative look at different groups of architects in terms of creativity, ideology and socio-cultural environment; providing students with inspiration and deeper understanding of architecture.

Includes study visits.



- 261 214 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.
- 261 215 Cross-cultural Workshop in Architectural Design** **3(2-2-5)**
 Concepts, principles, analyses and problem identification with regards to designing under different cultural contexts. Organized workshop to improve students' design skills and abilities.
 Includes study visits.
- 261 216 Green Buildings** **3(3-0-6)**
 Architectural design associated with energy and environmental issues; building lifespan and factors affecting building design in overcoming environmental problems; related laws and standards; application of appropriate building materials and technology for architectural design, site planning, and landscape architecture.
 Includes study visits.
- 262 102 Basic Delineations** **3(1-4-4)**
 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 for illustrating general atmosphere in presentation work.
- 262 104 Architectural Presentation I** **3(1-4-4)**
 Developing skills in the use of drawing pencils, ink, and different color mediums; drawing on location; application of rendering techniques for expressing ideas in architectural presentation.
 Includes study visits.



262 105 Thai Architectural Design 3(2-3-4)

Thoughts, beliefs and practices associated with constructing domestic and vernacular buildings in each region of Thailand. Emphasis on unique characteristics in terms of proportion, styles, materials and structure in design applications; exercises in designing and drafting.

Includes study visits.

262 108 History of Thai Architecture I 3(3-0-6)

Architecture in Thailand from Dvaravati period (6th - 10th century) to Early Rattanakosin period (19th century); influences of ancient civilizations on architecture in the Southeast Asian region.

Includes study visits.

262 109 Thai Ornaments in Architecture 3(1-4-4)

Origin and derivation of Thai ornamental patterns and structure of their designs. Exercises in drawing and creating patterns; developments in Thai style ornamental patterns and analyses of their applications in Thai architecture; developing skills in designing patterns and motifs for decorative purposes.

Includes study visits.

262 111 History of Thai Architecture II 3(3-0-6)

History of architecture in Thailand from the period of King Mongkut, or Rama IV (1851-1868), to the present day; styles and cultural influences affecting Thai architecture.

Includes study visits.

262 115 Architecture as a Culture Context in Asia 3(3-0-6)

Cultural origins of architectural creativity reflecting the outlook of builders and users; social systems, rituals, beliefs and religions influencing architectural creations; understanding architecture, people, and cultures in the Asian region.



- 262 118 Principles of Thai Architecture** **3(1-4-4)**
 Factors influencing styles in Thai architecture of residential and religious nature; analyzing different types of buildings in terms of planning, architectural characteristics and details.
- 262 119 Thai Traditional Arts and Crafts** **3(2-2-5)**
 Background of traditional arts and crafts in Thai architecture; decorative lime stucco molding, wood carving, mirrored glass mosaic, mother of pearl inlay, perforated paper, lacquered and gilded decorations; making appropriate choices for ornamental applications.
 Includes study visits.
- 262 121 Delineations in Thai Architecture** **3(1-4-4)**
 Drawing course focusing on various types of Thai architecture; analyzing different structural forms and architectural details that are practical for construction.
- 262 202 History of Architecture from Egypt to Baroque** **3(3-0-6)**
 Developments in Western architecture from Prehistory to the period of Baroque in the 18th century.
- 262 204 History of Architecture from Neoclassicism to Modernism** **3(3-0-6)**
 Development of Western architecture from the Neo-classic period in 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.
- 262 210 Contemporary Asian Architecture** **3(3-0-6)**
 Designs and developments of contemporary architecture in Asia with emphasis on those in ASEAN countries; design process and other relevant factors such as environment, technology, economics, and social and cultural contexts.



- 262 214 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 approval and guidance of a supervisor.
- 262 215 Building Re-use and Rehabilitation** **3(2-2-5)**
 Architectural conservation principles and practices concerning rehabilitation of registered buildings, historic buildings, and old buildings in various contexts to suit present-day requirements. Topics include renovation, re-use, additions and adaptations as well as designing new buildings in old contexts.
 Includes study visits.
- 262 216 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 group study under the approval and guidance of assigned supervisor/s.
- 263 101 Materials and Construction I** **3(2-3-4)**
 Origins, properties and uses of timber, brick, stone, iron, aluminum, metallic and non-metallic building materials; methods of construction for small-scale timber buildings; exercises in drafting and construction working drawings.
 Includes study visits.
- 263 102 Mathematics** **3(3-0-6)**
 Fundamental course in mathematics dealing with calculus of functions, differentiation, integration, and constants; practical applications for problem solving in architectural design.



263 107 Construction III 3(2-3-4)
(Construction III)

Prerequisite: 263 106* Construction II

Construction methods for iron and steel building structures; methods for dealing with different building components under different conditions; exercises in working drawings and model making.

Includes study visits.

263 108 Structural Systems in Architecture II 3(3-0-6)

Prerequisite: 263 105* Structural Systems in Architecture I

Using basic principles of statics for making structural analysis; calculating loads and acting forces, reacting forces, bending moments, shear and other forces; drawing shear and bending moment diagrams; influence lines; deflection theory, and behavior of various structural components under external forces.

Includes study visits.

263 109 Construction IV 3(2-3-4)

Prerequisite: 263 107* Construction III

Design and construction methods for high-rise / large buildings; structural systems and building services systems. Exercises in working drawing, documentation, specification writing, and model making.

Includes study visits.

263 110 Mechanical Equipment 3(3-0-6)

Principles concerning mechanical equipment systems in buildings; allowing spaces for air conditioning system, plumbing and sanitary system, electrical system, lighting system, lightning protection system, fire protection system, communication and security systems. Fundamentals of good acoustic design for buildings. Related laws and regulations concerning inspection of building equipment and energy conservation.

Includes study visits.



- 263 111 Structural System in Architecture III** **3(3-0-6)**
 Prerequisite : 263 108* Structural Systems in Architecture II
 Behavior and design of various building components for timber-frame structures, steel structures, and reinforced concrete structures.
 Includes study visits.
- 263 113 Concrete Technology in Architecture** **3(2-3-4)**
 Methods for selecting and storing materials and aggregates to be used in mixing concrete; determining mixing ratio; methods for setting up boxing, molding, pouring and curing concrete; designing special textural effects, and pre-casting.
 Includes study visits.
- 263 114 Computer in Architecture** **3(2-3-4)**
 Introduction to computer programming and packaged software for assisting in architectural design and presentation.
- 263 202 Industrialized Building** **3(2-3-4)**
 Application of industrialized building systems to reduce time and cost in design and construction process as well as improve construction quality; different types of building products and construction joints.
 Includes study visits.
- 263 204 Individual Study in Building Technology** **3(1-4-4)**
 Students choose a topic of interest concerning building technology, and carry out their own study under the guidance of a supervisor.
- 263 205 Cost Estimation** **3(2-2-5)**
 Principles of cost estimation and valuation; estimation process, basis of estimate, labor costs, quantity survey, bill of materials and bill of quantities; direct costs, indirect costs, cost index and comparing costs of building components.



- 263 206 Construction Management** **3(3-0-6)**
 Principles of construction management; planning, management tools and decision making; construction problems involving architects, engineers and other related professions.
- 263 207 Computer Aided Architectural Design I** **3(2-3-4)**
 Use of computer technology for architectural drafting; work standards and systemizing drawings and documents.
- 263 208 Computer Aided Architectural Design II** **3(2-3-4)**
 Techniques for creating 3D modelling and 3D visualization; emphasis on using computer for studying architectural spaces and forms.
- 263 209 Individual Study in Computer Application in Architecture** **3(1-4-4)**
 Students choose a topic of interest concerning computer programs and programming techniques to assist in the different stages of architectural design process and carry out their own study under the guidance of a supervisor.
- 263 210 Building Innovation Technology** **3(3-0-6)**
 Concept and application of building technology innovation. Innovations concerning structural systems, construction systems, building envelope systems, building services systems, and facility management systems. Includes study visits.
- 263 211 Building Diagnosis** **3(3-0-6)**
 Causes and effects of building deterioration; techniques for dealing with deterioration of building structure, building envelope, and building services. Includes study visits.



- 263 212 Architectural Design for Confronting Disasters** **3(3-0-6)**
 Concepts for designing durable architecture that can withstand geohazards, landslides, earthquakes, floods, tsunamis, storms, fire and other natural disasters.
- 263 213 Architectural Acoustics** **3(3-0-6)**
 Theory of sound; design principles for good acoustic quality in connection with building forms, materials, structures, and mechanical systems; reduction and prevention of noise interference; audio and acoustical equipment. Use of computer software for simulating room acoustics; case studies of auditoriums, concert halls, theaters, and cinemas.
 Includes study visits.
- 264 101 Site Planning** **3(2-3-4)**
 Process and factors involved in site planning; exercises in design and site planning for architectural projects.
- 264 102 Landscape Architecture** **3(2-2-5)**
 Prerequisite: 264 101* Site Planning
 Landscape design and its interrelationship with architecture and site planning; influence of the natural environment, ecology, and human behavior; studio exercises in site planning and grouping of buildings to create harmony between architecture and landscape.
 Includes study visits.
- 264 201 Evolution of Human Settlements** **3(3-0-6)**
 Setting up of human settlements through the ages, from past to present; influencing factors affecting urban changes; impact of social and economic developments on urban growth and physical characteristics.



- 264 202 Introduction to Urban Planning** **3(3-0-6)**
 Role, importance, and purpose of urban planning; planning process and methods; implementation of plans; study of land use, traffic, transportation, infrastructure, and environment in order to understand how the urban system works.
 Includes study visits.
- 264 203 Environment and Human Behavior** **3(3-0-6)**
 Structure of the relationship between people and their physical surroundings; perception and cognition of the environment; territoriality, interpersonal space, and defensible space behaviors.
- 264 204 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 their own study under the guidance of assigned supervisor.
- 264 205 Design for Sustainable Environment** **3(3-0-6)**
 Concept of sustainable development and its application as the basis for designing sustainable environment; issues concerning unity and harmony between architecture, community and city.
- 264 206 Sustainable Community Development** **3(1-4-4)**
 Various aspects of community and basic principles for developing sustainable community; analyses of relationship between internal and external factors affecting the community; fieldwork involving design and planning for selected community.
 Includes study visits.
- 264 207 Urban Design** **3(1-4-4)**
 Aspects of urban design associated with architecture; various components of the urban environment and context; exercises in urban design projects.



- 264 208 Field Study in Urban Design and Landscape Architecture 3(1-4-4)**
Selected case studies of urban design and landscape architecture; understanding the relationship between architecture and other urban aspects of the built environment; gaining direct experience of places through field excursions both within the country and abroad.
Includes field trips.
- 265 201 English for Architecture I 3(2-2-5)**
Exercises in reading articles on architecture and related disciplines; writing summaries and giving verbal presentations to express opinions in class.
- 265 202 English for Architecture II 3(2-2-5)**
Exercises in reading articles on architecture and related disciplines; summarizing important points, writing articles, abstracts and reports; quoting, referencing and citations.

