Bachelor of Architecture Program

(B.Arch)

Philosophy

Bachelor of Architecture program (Revised 2012) aims to produce graduates with knowledge in the field of architecture who are ready for the professional practice and able to develop the learning process to apply it in the practice with changes in the future. Furthermore, students will be trained their skills and provided experiences in architecture to be ready for their future works. The program intends to produce graduates who have virtue, morality, and ethics in both their living and working; and understand the situation of the world also the societies that is diverse and constantly changing. The graduates from the program will be able to integrate knowledge and sciences involved in the architectural creative process that is sustainably consistent with locality; and will be desired by the societies and the current job markets.

Program Curriculum and Structure

1) General Studies Courses	**30**	**Credits**
2) Specific Courses	**144**	**Credits**
3) Elective Courses	**6**	**Credits**
Total Required Credits	**180**	**Credits**

Suggested Study Plan

Year 1 Semester 1		**Credits**
000 101	English for Communication	3(3-0-6)
000 153	Local Wisdom	3(3-0-6)
806 111	Principles of Design	4(2-4-6)
806 112	Architecture Presentation	3(1-4-4)
806 113	Architectural Drawing	3(1-4-4)
806 121	History of Eastern Art and Architecture	3(3-0-6)
	Registered credits in total	**19**
	Cumulative credits in total	**19**
Year 1 Semester 2		**Credits**
000 102	English for Academic Purposes I (EAP I)	3(3-0-6)
000 156	Multiculturalism	3(3-0-6)
000 168	Critical Thinking and Problem Solving	3(3-0-6)
806 122	History of Western Art and Architecture	3(3-0-6)
806 131	Basic Architectural Design	4(1-6-5)
806 141	Structure Systems I	3(3-0-6)
806 142	Tropical Architecture	3(2-2-5)
	Registered credits in total	**22**
	Cumulative credits in total	**41**

Year 2 Semester 1		Credits
000 103	English for Academic Purposes I (EAP II)	3(3-0-6)
000 169	Creative Thinking	3(3-0-6)
806 221	Concepts and Theories of Modern and Post Modern Architecture	3(3-0-6)
806 231	Architectural Design I	4(1-6-5)
806 241	Architectural Material & Construction I	2(1-2-3)
806 242	Building Systems I	2(1-2-3)
806 251	Site Planning	3(2-2-5)
	Registered credits in total	**20**
	Cumulative credits in total	**61**
Year 2 Semester 2		**Credits**
000 132	Life and Aesthetics	3(3-0-6)
806 211	General English for Designer	3(3-0-6)
806 222	Architectural Design Theory	3(3-0-6)
806 212	Computer for Architectural Drawing	3(2-2-5)
806 243	Structure Systems II	3(3-0-6)
806 244	Construction Drawing & Specification I	2(1-2-3)
806 232	Architectural Design II	4(1-6-5)
	Registered credits in total	**21**
	Cumulative credits in total	**82**

Year 3 Semester 1		Credits
000 145	Leadership and Management	3(3-0-6)
806 311	Computer for Architecture Presentation	3(2-2-5)
806 321	Thai Architecture	3(2-2-5)
806 331	Architectural Design III	4(1-6-5)
806 341	Architectural Material & Construction II	2(1-2-3)
806 342	Building Systems II	2(1-2-3)
806 XXX	Elective Course in Architecture	3
	Registered credits in total	**20**
	Cumulative credits in total	**102**
Year 3 Semester 2		**Credits**
806 312	Interior Architecture	3(2-2-5)
806 322	Vernacular Architecture I	2(2-0-4)
806 332	Architectural Design IV	4(1-6-5)
806 343	Structure Systems III	3(3-0-6)
806 344	Construction Drawing & Specification II	2(1-2-3)
806 345	Architectural Design for Sustainability	3(2-2-5)

XXX XXX	Elective Course	3
	Registered credits in total	**20**
	Cumulative credits in total	**122**
Year 4 Semester 1		**Credits**
806 421	Vernacular Architecture II	2(1-2-3)
806 431	Architectural Design V	4(1-6-5)
806 441	Architectural Material & Construction III	2(1-2-3)
806 442	Building Systems III	2(1-2-3)
806 451	Landscape Architecture	3(3-0-6)
806 461	Construction Cost Estimate	3(2-2-5)
806 XXX	Elective Course in Architecture	3
	Registered credits in total	**19**
	Cumulative credits in total	**141**
Year 4 Semester 2		**Credits**
000 155	Civic Engagement	3(3-0-6)
806 432	Architectural Design VI	4(1-6-5)
806 452	Urban Context and Architecture	3(3-0-6)
806 462	Construction Management	3(2-2-5)
806 463	Apprentice in Architectural Design	-
806 XXX	Elective Course in Architecture	3
XXX XXX	Elective Course	3
	Registered credits in total	**19**
	Cumulative credits in total	**160**
Year 5 Semester 1		**Credits**
806 531	Architectural Design VII	4(1-6-5)
806 532	Thesis Preparation	3(2-2-5)
806 533	Seminar in Architecture	2(2-0-4)
806 561	Professional Practice	3(3-0-6)
	Registered credits in total	**12**
	Cumulative credits in total	**172**
Year 5 Semester 2		**Credits**
806 534	Thesis in Architecture	8(0-16-8)
	Registered credits in total	**8**
	Cumulative credits in total	**180**

Course Descriptions

000 101 English for Communication 3(3-0-6)

Development of listening, speaking, reading and writing English language skills for communication in social settings.

000 102 English for Academic Purposes I (EAP I) 3(3-0-6)

Development of basic English language skills to help achieve personal and academic goals and to promote life-long learning.

000 103 English for Academic Purposes I (EAP II) 3(3-0-6)

Development of advanced English language skills to help achieve personal and academic goals and to promote life-long learning.

000 132 Life and Aesthetics 3(3-0-6)

Meaning and importance of life and aesthetics, aesthetics in the nature, aesthetics in human being, aesthetics in arts and cultures, values of aesthetics and life, aesthetics development.

000 145 Leadership and Management 3(3-0-6)

Concept and theories of leadership, personalities, characteristics and roles of leadership, team building and team working, principle and theories of management, self management, crisis management, change management, conflict management, strategic management, development of leadership and management.

000 153 Local Wisdom 3(3-0-6)

Concept of local wisdom, local wisdom and ways of life, local wisdom and community development, local wisdom and impact of social and globalization, local wisdom development.

000 155 Civic Engagement 3(3-0-6)

Concept of civic engagement, pattern, context, and factors to consider in each levels of society, roles of individual and others to co-operated in civic engagement, self development for happiness of living in society.

000 156 Multcuralism 3(3-0-6)

Culture and cultural diversity, western culture, eastern culture, This culture and isan culture, impact of cultural changes on society and human way of life.

000 168 Critical Thinking and Problem Solving 3(3-0-6)

Concept of process of critical thinking, knowledge and information searching, reasoning, thinking and decision making, means to develop critical thinking and responding.

000 169 Critical thinking Skill 3(3-0-6)

Concept and theory of creative thinking, component and form of creative thinking process of creative thinking, knowledge and information seeking, creative thinking techniques, developmental process of creative thinking, application in daily life, producing creative work in daily life.

806 111 Principles of Design 4(2-4-6)

Fundamental principles and techniques for 2-dimension and 3-dimension artistic composition i.e. rudimentary elements, element's properties, and compositional techniques.

806 112 Architecture Presentation 3(1-4-4)

Fundamental of drawing by visually present objects. Study presentation techniques (pencil, pen, color pencil, water color, ink color, poster color, and mixed-media) for interior and exterior presentation including other related elements such as human figures, cars, plants, furniture and etc.

806 113 Architectural Drawing 3(1-4-4)

Using drawing tools, principles of architectural drawing, drawing line, and lettering, geometric forms, projection, scale and dimension. drawing of plan, elevation, and section, drawing 3-dimensional isometric, perspective, and principles of shadow drawing.

806 121 History of Eastern Art and Architecture 3(3-0-6)

Study on Eastern civilization history from the Pre-Historic period to Pre-Modern period. Study history through context and culture of value and meaning of achievement of creation in architecture by emphasis in criteria that defined in frame of “design or design process” and “craftsmanship process”.

806 122 History of Western Art and Architecture 3(3-0-6)

Study on Western civilization history from the Pre-Historic period to Pre-Modern period. Study history through context and culture of value and meaning of achievement of creation in architecture by emphasis in criteria that defined in frame of “design or design process” and “craftsmanship process”.

806 131 Basic Architectural Design 4(1-6-5)

Meaning and fundamental criteria of architecture and design. Determining factors, basic steps, and tools in architectural design process.

806 141 Structure System s I 3(3-0-6)

The study of structural systems development in architecture. Criteria and concept in structural design that suites architecture in physical, function, materials and fundamental knowledge in wood structure, steel structure and concrete structure for small building.

806 142 Tropical Architecture 3(2-2-5)

Design principles of tropical architecture in hot-humid climate, fundamental knowledge of relationship of human climate architecture and environment, create thermal comfort with passive design strategies, sun chart and solar calculations including shading equipment design, and other related issues to building and case study.

806 211 General English for Desinger 3(3-0-3)

Basic English language used in design in general and presentation including techniques to communicate concept in design.

806 212 Computer for Architectural Drawing 3(2-2-5)

Using computer technique to create and study architectural form. It’s also drawing of architectural drawing with computer.

806 221 Concepts and Theories of Modern and Post Modern Architecture 3(3-0-6)

History and development of architectural design theories. Philosophies and design concepts of architects through case studies from Pre-Modern to Post Modern period. To understand the consequence of architecture that shaped from ideas and systematical design process, which are in Western and Eastern culture and history.

806 222 Architectural Design Theory 3(3-0-6)

Development of concepts and architectural theory from style and trend, and case studies from contemporary architecture in western and eastern world.

806 231 Architectural Design I 4(1-6-5)

Design process for small residential building in hot-humid climate, concern with structure and basic building systems.

806 232 Architectural Design II 4(1-6-5)

Design process related to public residential building and small public building with an area less than 2,000 square meters, which has medium complexity in functional concerns. The design emphasizes on tropical design concerning organization of form, interior and exterior spaces including the development of architectural detail design for construction.

806 241 Architectural Material & Construction I 2(1-2-3)

Material, construction, and construction drawing of wood structure, concrete structure, steel structure in architecture for residential or small public building, which has area less than 2000 square meter and up to 4 stories-high.

806 242 Building Systems I 2(1-2-3)

Fundamentals of all engineering systems concerned with low-rise building that are less than 2,000 square meters with height less than 15 meters.

806 243 Structure Systems II 3(3-0-6)

Criteria and concept in structural design for mid-size building, including physical characteristic, function, materials and knowledge in wood structure, steel structure, and concrete structure for mid-size building.

806 244 Construction Drawing & Specifications I 2(1-2-3)

Principle of construction drawing, element of construction drawing, construction document writing, lay-out plan, floor plan, foundation plan, beam plan, section, and elevation. Construction detail, electrical system plan, water supply and sanitary system plans, detail and specifications of building material, for up to 2 story building.

806 251 Site Planning 3(2-2-5)

Principle and technique of site planning process, map interpretation, survey and information analysis for site planning.

806 311 Computer for Architecture Presentation 3(2-2-5)

Techniques in computer generated architectural presentation, 3-dimensional perspective rendering and retouching, composing of presentation plate.

806 312 Interior Architecture 3(2-2-5)

Principles of interior design and decoration for buildings. Technique and construction methods for interior decoration. Materials, dimension, scale used for building's elements and furniture for multi-age users (universal design). Interior construction drawing
and interior presentation.

806 313 Architectural Photography 3(1-4-5)

Architectural photography and presentation through the vision of photography, using of photography device, photograph composition and photograph retouching with computer.

806 321 Thai Architecture 3(2-2-5)

Fundamental knowledge of Thai architecture, concepts and characters of Thai architecture and achieving of architectural creation in each era, principles of symbols and meanings that related to Thai architecture design.

806 322 Vernacular Architecture I 2(2-0-4)

Fundamental knowledge on types, concept, wisdom construction and application of vernacular architecture from case studies in Thailand and foreign countries.

806 331 Architectural Design III 4(1-6-5)

Design and planning of public buildings in relation to site, environment, and existing context in the Northeastern region. The appropriate use of structure and basic building systems are considered.

806 332 Architectural Design IV 4(1-6-5)

Design of mid-rise public buildings, building's area less than 10,000 square meters, appropriate building systems, building regulations, law, and character or identity of the Northeastern region.

806 333 Human Behavior and Architecture 3(3-0-6)

Behavior and perception of human, influence on architectural design in both abstract and physical form, perception analysis process that affect to human behavior, space in architecture, understanding a relationship between perception and architectural design, application of the study's result for design that response to needs and space in architectural.

806 341 Architectural Material & Construction II 2(1-2-2)

Material, construction, and construction drawing of reinforced concrete and steel building, which has area from 2000 square meter to 10,000 square meter and limited to 23 meter high.

806 342 Building Systems II 2(1-2-2)

Engineering systems, structure systems, electrical system, sanitary systems, that concerned with building that has area between 2,000 - 10,000 square meters with height less than 23 meters.

806 343 Structure Systems III 3(3-0-6)

The study of criteria and concept in structural design for prefabricated, high-rise, and long span structure buildings, including physical characteristic, function, materials prefabricated structure and special structure.

806 344 Construction Drawing & Specification II 2(1-2-3)

Principle of construction drawing, element of construction drawing, construction document writing, lay-out plan, floor plan, foundation plan, beam plan, section, elevation, and construction detail. electrical system plan, water supply and sanitary system plans, air-conditioning system plan, fire protection system plan, communication system plan, detail and specification of building material. for medium size building (height from 4-story building up).

806 345 Architectural Design for Sustainability 3(2-2-3)

Principles theories and concepts of sustainable architecture/green architecture, methods for achieving sustainable design, resource conservation such as material water and energy, life cycle design of building including criteria for evaluation of high energy
efficiency and low environmental impacts.

806 346 Lighting Design in Architecture 3(1-4-4)

Study, design and experiment on natural and artificial lighting design in architecture.

806 351 Introduction to Urban Design 3(3-0-6)

General knowledge in urban design, evolution, concepts and theories, fundamental. elements in urban design, urban contextual survey and analysis, key issues and urban design proposal presentation and case studies in urban design.

806 361 Regulation and Building Code 3(3-0-6)

Principle and method of regulations and building code that apply for architecture design and planning, building code of design for building safety and universal design code of practice.

806 362 Individual Study 3(0-6-3)

Individual study on selected architectural topics.

806 421 Vernacular Architecture II 2(1-2-3)

Architectural design with respect to context of local environment and resources, in particular of Northeastern region.

806 422 Contemporary Thai Architecture 3(3-0-6)

Thai contemporary architecture, Physically and culturally analysis, Elements that effect atmosphere interior and exterior spaces, Forms or characters that influence on psychologically perceptions, linkages between building and landscape, examples of new architectural synthesis process for searching of some particular characteristic or elements for design of Thai contemporary for Thai context.

806 423 Advanced Architectural Design Theory 3(2-2-5)

Understanding formation of knowledge and truth related to architectural context, judgment and basic knowledge, Analysis of philosophy that is conceptual base in architecture, analysis and synthesize concepts in architectural design process.

806 424 Architectural Design Theory Discourse 3(2-2-0)

A Study, analysis and synthesis of diverse architectural theories resulted from variety influences.

806 431 Architectural Design V 4(1-6-5)

Design of public building, highly complicate in function, medium-height building with area more than 10,000 square meters and more than 23 meters high. The design concerns with community and environments impacts, regulation and building code, building systems, tropical design, and sustainable design.

806 432 Architectural Design VI 4(1-6-5)

Design process related to public residential building, large public building which is complicated in functional concerns an area more than 10,000 square meters and more than 23 meters high, the design emphasizes on regulations and building code, building systems, tropical design and design for sustainability including the development of architectural detail design for construction.

806 433 Special Topic in Architecture 3(2-2-5)

Study, analysis, and synthetic of particular subjects in architecture.

806 441 Architectural Material & Construction III 2(1-2-3)

Material and Construction for extra-large building and high-rise building. Reinforced concrete structure and long-span steel structure. Modular construction system and prefabrication. Architectural and related engineering drafting.

806 442 Building Systems III 2(1-2-3)

All engineering systems concerned with high-rise building and large building, including electrical system, air-conditioning system, sanitary system, fire protection system, communication system, and elevator system.

806 451 Landscape Architecture 3(3-0-6)

Fundamental principle, scope, pattern and history of landscape architecture, theory and design concept, landscape design process, elements of landscape architecture and plant, material, landscape design and management that related to architectural design.

806 452 Urban Context and Architecture 3(3-0-6)

General knowledge in urbanization, urban elements, urban key issues, urban process and implementation measures that influence the design of architecture, and also the urban survey and analysis techniques and case studies of urban design and planning projects that related to architectural design in sustainable urban context.

806 461 Construction Cost Estimate 3(2-2-5)

Principle and method for quantities survey and cost estimate of material, labors, and operating cost, standard method of measurement, work beak down structure and documentation for purpose bidding.

806 462 Construction Management 3(2-2-5)

Principle and method of construction management, construction planning, construction supervision and inspection.

806 463 Apprentice in Architectural Design -

Job training in architectural design or related issues, at least 200 hours of training in a summer semester by an approval of B.arch. Program Administration Committee.

806 464 Construction Project Planning 3(2-2-5)

Construction management, Techniques and construction planning, Construction schedule control, construction cost and quality control, construction planning for pre-fabrication construction system.

806 465 Real Estate Feasibility Study 3(2-2-5)

Concept, theory and principle that related to real estate feasibility study, project risk management, monitoring and evaluation project including application for government /private sector projects.

806 531 Architectural Design VII 4(1-6-5)

An integrated architectural design and planning process of multi-use buildings concerning site selection, their impacts to city with a basic analysis of project feasibility.

806 532 Thesis Preparation 3(2-2-5)

A study of different aspects related to architectural thesis, data analysis for architectural programming and design process for thesis.

806 533 Seminar in Architecture 2(2-0-4)

Seminar on issues related to designs and architecture.

806 534 Thesis in Architecture 8(0-16-5)

Architectural design process bases on architectural program that is integrated knowledge from various perspectives from Thesis Preparation and explicit convey architectural knowledge.

806 561 Professional Practices 3(3-0-6)

Architecture professional practice, ethic, professional regulation, method of thinking and problem solving, Principle and practical method for architects.