

Interior Architecture Program

5 Years Structure

Interior Architecture Program

School of Architecture and Design, KMUTT

Name of Program

Bachelor of Architecture Program in Interior Architecture

Degree

Full name: Bachelor of Architecture, (Interior Architecture), International Program

Abbreviated name: B. Arch. (Interior Architecture),
International Program

Objectives of the Program

- To produce students into the professional world of practice and further studies. Continuing developments within the profession can only occur by providing a foundation knowledge in design, science, and technology to young professionals whilst simultaneously stimulating their thinking process and self-direction in developing design innovation.
- To provide the most comprehensive education through the English language program, and to develop an aspiring graduate to be thoroughly trained and adaptable to an international market, as well as be prepared to contribute to the culture, welfare, and reputation of Thailand. To promote research and development leading to the integration of technological applications in interior architecture, and to render technical services on design, consultation, advisory management, and training to government departments and related private sector organizations.

Program Duration

Completion of required credits for full-time program are to be made within a period of 10 semesters or 5 academic years, but not exceeding 20 semesters or 10 academic years.

Curriculum

Total Program Credits **178 credits**

Curriculum Components

General Education Courses **31 credits**

- Health Courses 1 credit
- Integrative Courses 15 credits
- Language Courses 9 credits
- Elective Courses not less than 6 credits

Major Courses **141 credits**

- Fundamentals Courses 35 credits
- Core Courses 47 credits
- Technology Courses 30 credits
- Supporting Courses 20 credits

Architectural Elective Courses not less than 9 credits

Free Elective Courses not less than 6 credits

Interior Architecture Program

Year 1

First Semester		
Code	Course	Credit*
ARC 115	Design Sketch	3(1-4-6)
ARC 117	Design Fundamentals I	4(1-6-8)
ARC 123	History of Art and Design	3(3-0-6)
LNG 105	Academic English for International Students	3(3-0-6)
GEN 121	Learning and Problem Solving Skills	3(3-0-6)
GEN 231	Miracle of Thinking	3(3-0-6)
Total		19(14-10-38)
Second Semester		
ARC 116	Design Drawing	3(1-4-6)
ARC 118	Design Fundamentals II	4(1-6-8)
ARC 125	History of Architecture and Interior Architecture I	3(3-0-6)
LNG 106	Academic Listening and Speaking	3(3-0-6)
GEN 111	Man and Ethics of living	3(3-0-6)
GEN 241	Beauty of Life	3(3-0-6)
Total		19(14-12-38)

Year 2

First Semester		
Code	Course	Credit*
ARC 226	History of Architecture and Interior Architecture II	3(3-0-6)
INA 241	Interior Architectural Design I	4(1-6-8)
ARC 261	Building Materials and Construction Technology I	3(1-4-6)
ARC 271	Structural Design I	3(3-0-6)
ARC 281	Environmental Technology I: Comfort Factors and Thermal Design)	3(3-0-6)
GEN xxx	Elective I	3(x-x-x)
Total		19(x-x-x)
Second Semester		
ARC 231	Theory of Architectural and Interior Architecture	3(3-0-6)
ARC 262	Building Materials and Construction Technology II	3(1-4-6)
ARC 272	Structural Design II	3(3-0-6)
INA 242	Interior Architectural Design II	4(1-6-8)
INA 211	Color, Materials and Presentation	3(1-4-6)
GEN xxx	Elective II	3(x-x-x)
Total		19(14-18-38)

Year 3

First Semester		
Code	Course	Credit*
ARC 382	Environmental Technology II : Architectural Lighting and Acoustics	3(3-0-6)
INA 312	Spatial Perception & Psychology	3(3-0-6)
INA 333	Interior Arch. Project Program. And Space Planning	3(2-2-6)
INA 343	Interior Arch. Design III	6(1-10-12)
INA 373	Interior Arch. Construction and Detailing	3(1-4-6)
INA xxx	Interior Architectural Elective I	3(x-x-x)
Total		21(x-x-x)
Second Semester		
INA 311	Ergonomics/Safety and Human Disabilities	3(2-2-6)
INA 344	Interior Arch. Design IV	6(1-10-12)
INA 352	Lighting Design	3(2-2-6)
INA 363	Interior Architectural Material and Furnishing	3(1-4-6)
INA xxx	Interior Architectural Elective II	3(x-x-x)
XXX xxx	Free Elective I	3(x-x-x)
Total		21(x-x-x)

Year 4

First Semester		
Code	Course	Credit*
INA 435	Research Methods for Interior Architecture	3(1-4-6)
INA 445	Interior Arch. Design V	6(1-10-12)
INA 464	Interior Shop Drawing and Detail	3(1-4-6)
INA 496	Code of Conduct for Interior Architecture	3(3-0-6)
GEN 351	Modern Management and Leadership	3(3-0-6)
INA xxx	Interior Architectural Elective III	3(x-x-x)
Total		21(x-x-x)
Second Semester		
INA 446	Interior Arch. Design VI	6(1-10-12)
INA 457	Furniture Design and Workshop	3(1-4-6)
INA 494	Interior Specifications, Cost Estimation and Construction Management	3(2-2-6)
LNG 107	Academic Reading and Writing	3(3-0-6)
GEN 101	Physical Education	1(0-2-2)
XXX xxx	Free Elective II	3(x-x-x)
Total		19(x-x-x)

Year 5

First Semester		
Plan 1: Cooperative Learning		
Code	Course	Credit*
INA 501	Thesis Preparation	3(1-4-6)
INA 591	Cooperative Learning	6(0-35-18)
Total		9(1-39-24)
Plan 2: Architectural Internship		
INA 501	Thesis Preparation	3(1-4-6)
INA 592	Architectural Internship	3(S/U)
INA xxx*	Interior Architectural Elective	3(x-x-x)
Total		9(x-x-x)
Remark: * Select from Interior Architectural Electives which have *.		
Second Semester		
INA 502	Thesis	9(0-18-36)
INA 593	Interior Architectural Seminar	2(0-4-4)
Total		11(0-22-40)

*Credit = Credit Hour (Lecture-Practice-Self Study)

Course Description

General Education Courses 31 Credits

Required Courses 25 Credits

Health Courses 1 Credit

GEN 101 Physical Education 1 (0-2-2)

Prerequisite: none

This course aims to study and practice sports for health, principles of exercise, care and prevention of athletic injuries, and nutrition and sports science, including basic skills in sports with rules and strategy from popular sports. Students can choose one of several sports provided, according to their own interest. This course will create good health, personality and sportsmanship in learners, as well as develop awareness of etiquette of playing, sport rules, fair play and being good spectators.

Integrative Courses 15 Credits

GEN 111 Man and Ethics of Living 3(3-0-6)

Prerequisite: none

This course studies the concept of living and working based on principles of religion, philosophy, and psychology by fostering students' morality and ethics through the use of knowledge and integrative learning approaches. Students will be able to gain desirable characteristics such as faithfulness, social responsibility, respect of others, tolerance, acceptance of differences, self-discipline, respect for democracy, public awareness, and harmonious co-existence.

GEN 121 Learning and Problem Solving Skills 3(3-0-6)

Prerequisite : None

This course aims to equip students with the skills necessary for life-long learning. Students will learn how to generate positive thinking, manage knowledge and be familiar with learning processes through projects based on their interest. These include setting up learning targets; defining the problems; searching for information; distinguishing between data and fact; generating ideas, thinking creatively and laterally; modeling; evaluating; and presenting the project.

GEN 231 Miracle of Thinking 3(3-0-6)

Prerequisite: none

This course aims to define the description, principle, value, concept and nature of thinking to enable developing students to acquire the skills of systematic thinking, systems thinking, critical thinking and analytical thinking. The Six Thinking Hats concept is included. Moreover, idea connection/story line and writing are explored. Examples or case studies are used for problem solving through systematic thinking using the knowledge of science and technology, social science, management, and environment, etc.

GEN 231 Miracle of Thinking 3(3-0-6)

Prerequisite: none

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GEN 351 Modern Management and Leadership 3(3-0-6)

Prerequisite: none

This course examines the modern management concept including basic functions of management—planning, organizing, controlling, decision-making, communication, motivation, leadership, human resource management, management of information systems, social responsibility—and its application to particular circumstances.

Language Courses 9 Credits

LNG 105 Academic English for International

Students 3(3-0-6)

Prerequisite: none

The course aims at developing academic English skills necessary for learners in an international program. The learning and teaching involves the integration of the four language skills, thinking skills and autonomous learning. In terms of reading, the course focuses on academic reading, reading for main ideas, summarizing skills, critical reading and interpretation skills. In terms of writing, the emphasis is on process writing and academic writing to enable learners to effectively use the information gained from reading to support their statements, and to use appropriate citation to avoid plagiarism. Learners are also going to use dictionaries, grammar books, and appropriate information and communication technology to assist their writing. In terms of speaking, the focus is on impromptu situations, oral presentation, and the sharing and exchanging of ideas on issues related to the learners' content areas. In terms of listening, the focus is on listening to English lectures and taking notes.

LNG 106 Academic Listening and Speaking

3(3-0-6)

Prerequisite: none

This course aims at developing academic listening and speaking skills necessary for learners in international programs. The teaching and learning styles involve an integration of English with content areas related to the learners' fields. The course aims to enable learners to be able to listen to English lectures in their fields, ask and appropriately respond to questions, share ideas and express opinions, and read and summarize text. Learners will discuss and lead a discussion, make an effective oral presentation, and actively participate in the session.

LNG 107 Academic Reading and Writing 3(3-0-6)

Prerequisite : none

The course aims at developing academic reading and writing skills necessary for learners in international programs. The teaching and learning styles involve an integration of English into learners' content areas to enable them to read academic articles in their chosen fields. Learners will be able to extract main points from the text, purposefully select required information to support their writing, write different forms of reports in their fields, use information obtained from reading and their own experiment in writing an essay, and effectively use references and citations throughout the writing process.

Elective Courses 6 Credits

Select from GEN xxx courses or LNG xxx courses

Major Courses 141 Credits

Fundamentals Courses 35 Credits

ARC 115 Design Sketch 3 (1-4-6)

Prerequisite: none

Varying approaches to freehand drawing are offered to enhance awareness of the world and gain visual confidence. The course includes exercises in still life, figure drawing, and perspective sketching to expose the students to various ways of seeing. Students learn to draw form, objects, and objects in space. The course explores positive and negative space, edges and contours, and the effects of light and shadow. Proportion, details observation, awareness of space and surrounding, and creative problem solving will also be exercised. Media used includes: pencil, pen and ink, charcoal, crayon, pastels and colored pencil.

ARC 116 Design Drawing 3 (1-4-6)

Prerequisite: ARC 115

This course introduces the use of drafting tools, measurement and scale, and typography and lettering. The skills and knowledge include projection drawings: plan, elevation, section, oblique, axonometric, isometric, external view of one and two point perspectives, internal view of one and two point perspectives, and shade and shadow construction of orthographical projected drawing and perspectives. The above drawings projection can be used for research, analysis and representation.

ARC 117 Design Fundamentals I 4 (1-6-8)

Prerequisite: none

This course introduces the practical relevance of a set of nine design principles including Proportion, Asymmetry, Figure & Ground, Transformation, Chance, Dot/Line/Plane, Module, and Idea/Concept/ Reflexivity through structured day-length exercises in combinations of drawing, two-dimensions and three-dimensions. This class emphasizes on skills development, conceptual understanding and good working practice. The assessment is done via brief presentations and teacher advice.

ARC 118 Design Fundamentals II 4 (1-6-8)

Prerequisite: ARC 117

This course introduces visual thinking methodology: Idea/s – Development – Concept – Outcome/ Evaluation, via speculative visual thinking practical assignments involving variable combinations of two dimensions and three dimensions. This class emphasizes on ideas generation, creative thinking, critical evaluation, skills transference, and development across a range of situations. Assignment work is a discussion and evaluation via presentations and critical forum.

ARC 123 History of Art and Design 3 (3-0-6)

Prerequisite: none

This course introduces art historical chronology from early civilizations through to contemporary period in relation to theoretical relevance of nine key principles of design; Proportion; Asymmetry; Figure & Ground; Transformation; Chance; Dot/Line/Plane; Module; Idea/Concept/ Reflexivity. Material is imparted through a combination of lectures, documentary films and illustrated presentations. The written assignments should illustrate a combination of researched art history and individual observation of design principles in relation to local environment.

ARC 125 History of Architecture and Interior Architecture I 3 (3-0-6)

Prerequisite: ARC 123

Overall, historical development of architecture and interior architecture in Western Europe includes development of designed space, furniture and decoration, form, structure and site planning. This course introduces the Prehistoric period & ancient worlds. Classical foundation: Greek and Roman Architecture. Medieval era: Byzantine, Romanesque and Gothic. Renaissance: Return to Antiquity. Baroque: Mid-17th - 18th century Europe. Neoclassicism Romanticism & Picturesque. Transition to Industrial Age. Pioneering architecture of Early 20th Century. Towards Demise of Modernism: architecture in Post-war period. Contemporary architecture: The end of the 20th century.

ARC 226 History of Architecture and Interior Architecture II 3 (3-0-6)

Prerequisite: ARC 125

This course introduces to a relationship between architecture and interior architecture, and ideology in South, East, and Southeast Asia, ranging from prehistoric to pre-colonisation period. It also aims to study two most influential cultures: India and China, Korea and Japan, Mon and Pagan, Srivijaya Kingdom, Ancient Khmer, and Laos and Siam. The focus of analysis is on patterns of interior space, furniture and decoration, form and structure, and site planning. It will also investigate the evolution of Buddhist Stupas in Southeast Asia that cohere with variation of Thai traditional religious architecture.

ARC 231 Theory of Architecture and Interior Architecture 3 (3-0-6)

Prerequisite: none

Architectural Theory can be a method, an explanation, a poetic suggestion, an elucidation; it might provide the answers to definable problems, or make connections that enrich the understanding of the background from which architecture draws. A comparative study of Architectural theories and discourses along with their implementations from classic to contemporary architecture. Topics include scale and proportion, form and space, perspective, spatial perception, space and time, avant-garde, and utopia.

INA 211 Color, Materials and Presentation 3 (1-4-6)

Prerequisite: ARC 116

Studies include the development of personal skills in making presentations of interior architecture: methods of drawing, rendering, graphics, use of corresponding materials, and new techniques including computer rendering. The course also contains the basics of color and characteristics of surface materials, their applications, technology, and psychological response including the application, theory and practice, in the field of interior architecture.

INA 311 Ergonomics: Safety and Human Disabilities 3 (2-2-6)

Prerequisite: none

The course includes the effects the environment, interiors and furnishings have on the human body; concerns regarding the safety of designs; safety of building systems; maintenance as they affect normal performance; and current information regarding safety and disability laws (basic considerations in design of physically impaired).

INA 312 Spatial Perception & Psychology 3 (3-0-6)

Prerequisite: none

Studies include the review of fundamental concepts of psychology; psychological factors and their impact on human behavior and space; processes of human behavior, perception, cognition and effects and conceptual systems; spatial behavior; and psychological principles in color and form design.

Core Courses 47 Credits

INA 241 Interior Architectural Design I 4 (1-6-8)

Prerequisite: ARC 118

Foundations include spatial design, architectural studies, intervention between body, culture and technology including exploration and investigation on the relationship between interior space and architectural elements. The program in the interior space reflects the architecture of the building by focusing on domestic architecture and its interiors, i.e. spatial relations between personal space and shared space within the home.

INA 242 Architectural Design II 4 (1-6-8)

Prerequisite: INA 241

Foundations include spatial design and architectural studies. Intervention between body, culture and technology. Exploration and investigation on the relationship between interior space and architectural elements: how the program in the interior space reflects the architecture of the building. This includes sketches, physical models, technical drawings, focusing on transitional space between the home and the workplace.

INA 333 Architectural Project Programming 3 (2-2-6) And Space Planning

Prerequisite: none

Studies include the methodology of gathering, analyzing, projecting and synthesizing information as gained through interviews, questionnaires, and observation for the purpose of establishing an interior architecture project's program.

INA 343 Interior Architectural Design II 6 (1-10-12)

Prerequisite: INA 242

Design agenda focusing on complex programs operating within interior space and architectural features, interior architectural design of community space, and interior architectural design of educational space. Emphasis is placed on materials, light, color, mechanical systems, safety, and appropriateness to architectural design.

INA 344 Interior Architectural Design IV 6 (1-10-12)

Prerequisite: INA 343

Studies include specific projects relating to design agenda of complex programs operating within interior space and architectural features, interior architectural design of retail spaces, interior architectural design of hotel, and interior architectural design of workplace. Emphasis is placed on materials, light, color, engineering systems, safety, and appropriateness to architectural design.

INA 445 Interior Architectural Design V 6 (1-10-12)

Prerequisite: INA 344

Studies focus on advanced interior architectural design I that enables students to focus on their own interests relating to the field of interior architecture with his/her selected choice of design studio units. Design development process and related various spatial concerns is on psychology, living and working habits, and specific needs. Emphasis is placed on spatial design potentials in an architectural context with thorough analysis of all related elements, related theoretical studies and application of the knowledge gained from the previous semesters.

INA 446 Interior Architectural Design VI 6 (1-10-12)

Prerequisite: INA 445

Studies focus on advanced interior architectural design II that enables students to focus on their own interests relating to the field of interior architecture with his/her selected choice of design studio units. Design development process and related various spatial concerns is on psychology, living and working habits, and specific needs. Emphasis is placed on spatial design potentials in an architectural context with thorough analysis of all related elements, related theoretical studies and application of the knowledge gained from the previous semesters.

INA 501 Thesis Preparation 3 (1-4-6)

Prerequisite: INA 446

The course covers research, study and design of an interior building type of specific group of spaces. Studies include special application of interior projects with unique requirements, program analysis and organization. Students establish thesis topics, which allow them to be creative and innovative, and the rationale of the proposed projects with supporting information. The project should provide an opportunity to research and explore new directions in Interior Architecture, such as new needs in the way society performs, fresh solutions and new meaning to architectural spaces including new requirements and functions. The project concept will be developed throughout the first semester to be ready for the detailed execution stage in the second semester.

INA 502 Thesis 9 (0-18-36)

Prerequisite: INA 501

This course continues from Thesis Preparation, which covered intensive research and study of the thesis and project proposal. At this stage, the concept is well developed for the project ready for design execution. Students demonstrate resolution of the proposals showing a logical progression from the schematic through to finalization and detailed execution, utilizing the design strategies established in previous stages. This studio class includes sketch problems, all aspects of graphic identification and presentation, research application, review process, applying knowledge gained from previous courses and corresponding use of computer aided programs.

Technology Courses 30 Credits

ARC 261 Building Materials and Construction Technology I 3 (1-4-6)

Prerequisite: none

This course introduces the principal construction materials such as wood and masonry regarding their properties: physical characteristics, qualifications and proper applications for building construction. Wood substituted materials will also be introduced in the course. The course focuses on the principles of construction for wood and masonry for small to medium-scale buildings. All building components: foundations, column, floor, wall, stairs, and roof will be covered through lectures, drafting project, and field trip. The basic skill and technical drawing techniques, conventional symbols of the materials and also cover to fulfill professional skill for students.

ARC 262 Building Materials and Construction Technology II 3 (1-4-6)

Prerequisite: ARC 261

Introduction of principal construction materials such as concrete and steel regarding their properties: physical characteristics, qualifications and proper applications for building construction. Basic application of construction materials focuses on materials commonly used for non-structural, building envelope and insulations regarding their properties: physical characteristics, qualifications and proper applications for building construction will be covered through lectures, and field trip. Small scale construction technique and building accessories will also be introduced in the course. The course also focuses on basic building system and appropriate use in buildings with different scales. Students will learn and practice the basic skill of construction drawing of reinforced concrete construction and basic detailing. The skills and technical drawing techniques will be conducted in building components such as: foundation, column, floor, wall, door & window, stairs, roof, as well as related building systems such as electrical and sanitary works.

ARC 271 Structural Design I 3(3-0-6)

Prerequisite: None

An introductory study of the property of non-metallic and metallic materials such as stone, glass, fiberglass, plastic, timber and cellular: iron, steel, and also composite materials. Examples are drawn from architecture and industrial products. This course discusses properties of the materials that results in their strengths: behaviors of the materials under forces such as elasticity and stiffness, deformation, cracks and dislocation, buckling of structural members: responses of the materials to their environments such as temperature and moisture. Another main focus is on basic properties, mechanical properties, and behavior of structural materials; wood, masonry, concrete, and steel. Basic structural analysis implemented in architecture is also discussed in the course.

ARC 272 Structural Design II 3(2-2-6)

Prerequisite : ARC 271

The emphasis of this course is on engineering qualities of building components that are foundation, column, floor, wall, and roof. Each component is considered according to nature of materials from which they were made. Students will learn a variety of construction methods by which the building components can be built: construction detailing: appraisals of the components in terms of engineering, functional performance, aesthetic: constructions. It discusses advantages and disadvantages: the building components that are built from different materials. Examples are drawn from either existing buildings or students' design projects.

ARC 281 Environmental Technology I: Comfort Factors and Thermal Design 3 (3-0-6)

Prerequisite : None

Concept of carbon footprint and importance of sustainable design are introduced. The main focus is on comfort factors and thermal control. Psychometric Chart is used as a tool. Heat gain factors include internal and external, as well as solar geometry, sun-earth relationship and solar impact on buildings. Concepts of passive and active design include orientation and site design fundamentals, zoning and layout strategies, effects from landscape and surroundings, shading design and effect of natural ventilation. Thermal performances of building components are introduced such as heat transfer modes, K, U value, SC, SHGC, OTTV and RTTV.

ARC 382 Environmental Technology II: Architectural Lighting and Acoustics 3 (3-0-6)

Prerequisite : ARC 281

This course introduces students to the basic physical principles, design implications and performance of environmental design focusing on the behavior of light and sound within and around buildings. The study covers relevant aspects of artificial light, daylight and acoustics that affect the psychological and physiological experience of buildings, performance metrics, and design strategies to equip students with the ability to design and modify the building fabric to enhance the environmental performance of designed spaces. The lighting study also includes lighting systems, lighting efficiency, lighting for a variety of building types, and different constraints of lighting concerning atmosphere and visibility. Energy management for lighting in buildings with reference to user's requirements, electrical circuit, equipment and health and safety issue. The second part of the course studies acoustics and architecture. It includes a study of nature of sound, sound quality and the influence of sound on architectural design: Noise control and protection for interior space and open-air environment, propagation of sound, noise reflection and absorption, applications of the knowledge on architectural design.

INA 363 Interior Architectural Material and Furnishing 3 (1-4-6)

Prerequisite: None

Material and furnishing for interior architecture design. Material properties. Material and furnishing classification for Interior construction and decoration. Type of material. Design application for functional purpose and decoration purpose.

INA 373 Interior Architecture Construction and Detailing 3 (1-4-6)

Prerequisite: ARC 262

Studies include the study and exercises of more intricate constructions and details of architectural building, with emphasis on interior detailing and materials.

INA 457 Furniture Design and Workshop 3 (1-4-6)

Prerequisite: INA 311

Studies include the examination and process of furniture design and development; technical aspects of furniture construction; hands-on application of wood joinery, metal application, and plastic molding and production.

INA 464 Interior Shop Drawing and Detailing 3 (1-4-6)

Prerequisite: ARC 262

Studies include the procedure in detailed drawings for the construction of other related works including field studies on some exemplary projects in order to develop insights into realistic situations.

Supporting Courses 20 Credits

INA 352 Lighting Design 3 (2-2-6)

Prerequisite: ARC 382

Studies include the application of typical lighting systems into complex interior architectural projects; basic theatre lighting design as applied to museums, clubs, etc. advanced lighting systems and their applications.

INA 435 Research Methods for Interior Architecture 3 (1-4-6)

Prerequisite: none

This course outlines important relations between research and design works for interior architecture students. The coursework introduces students to the variety of 'research methods' which can and may induce creativity and innovation in the field of design and architecture. The course encourages students to learn and to try-out different research methods which are relevant to their research interests and design. This course is designed to help senior students: (1) formulate the topic of their thesis; (2) find suitable methods of inquiry to investigate a particular issue, problem, or question; and (3) use relevant information to produce incisive projects and thesis.

INA 494 Interior Specifications, Cost Estimation and Construction Management 3(2-2-6)

Prerequisite: none

Studies include the research, cost analysis and detailed specification for all elements of the interior environment; production and labor standard; material and labor estimation for interior construction; schematic outlines, preliminaries for approval, bidding process and alternatives; analysis and synthesis of bids; segmented awards and follow through. Studies also include cost estimation according to materials prices, wages, instruments and management costs in various types of buildings; factors that influence initial costs, i.e. construction contract liability, special specification contract liability, special specifications, and labor. The course also includes introduction into the business aspects of construction management; organizational and financial concerns during entry into business and continued operation; interior architects, architects, engineers and builders relationships; organization of their work; construction planning and control by critical path method; contracts and tendering; control tools; construction laws and regulations; safety in construction.

INA 496 Code of Conduct for Interior Architecture
3(3-0-6)

Prerequisite: none

Studies professional ethics, which includes codes of ethics and conducts, architect's responsibilities, the evolution of the profession and today's career options etc. Laws involving architectural practice; namely, building controls and professional controls. Others may involve zoning environmental protection, and energy conservation laws, etc. Liability in faulty design will also involve tort and criminal law. It will also cover architectural practice including forming organizational management teams, design contracts, work process, preparation of bidding, contract and construction documents, roles and responsibilities of an architect as a designer in construction project.

INA 591 Cooperative Learning **6 (0-35-18)**

Prerequisite: INA 446

This course requires students to participate in interior architecture design-related industries according to individual interest for six months. It allows students to see the working process in different organizations to develop responsibility and self-confidence from working with other people, to accumulate knowledge and direct experiences needed for their interior architectural design project in the final semester. At the end of the program, students will be able to decide what kind of work they would like to participate after graduation.

INA 592 Cooperative Learning **3 (S/U)**

Prerequisite: INA 446

Supervised field experience in architectural offices. Understanding the practice of Architecture. Minimum of 2-month -full-time internship in architecture or relevant design office.

INA 593 Interior Architectural Seminars **2 (0-4-4)**

Prerequisite: none

Studies include the discussion of interior architecture projects and their problems in construction, with professional and industry practitioners. Students will be expected to know and understand basic concepts and design philosophy, which are reasonable and relevant in all Interior Architectural construction systems.

***Elective Courses Not less than 9 Credits

ARC 329 Analysis of Contemporary Architecture
3 (2-2-6)

Prerequisite: none

Study of development in all aspects involved in the emergence of contemporary architecture systematically. Analyze and collect all findings using different types of media such as drawings, media such as drawing, models or digital media. In each semester, architecture of a country is selected to be working models.

ARC350 Professional Communication and Presentation
3 (2-2-6)

Prerequisite: none

The content of this course is comprised of two different yet closely interrelated parts: visual and verbal presentation. The visual part introduces various tools and techniques for visual presentation including building up image library, mood board, material catalogues, diagramming technique as well as presentation lay-out and composition of presentation. The verbal part includes how to organize the content and put them in a clear and comprehensible order, selection of information, preparation of space and equipment as well as how to handle criticism.

ARC357 Information Technology for Architects and Designers
3 (2-2-6)

Prerequisite: none

This course focuses on information technology that can be applied to use in architectural and design works. The course covers the topics of management of computer in architectural and design office, data management, applied internet and modern communication. It also covers the current technology that will be applied in architecture and design works. Students will have practical exercises and experiments with applying information technology in their work.

ARC 358 Design for Sustainable Tourism Development
3(2-2-6)

Prerequisite: none

The course will emphasize on the idea and concept of sustainable development that supports tourism industry as well as concerns of environmental awareness. The course will cover the definition and concept of sustainable development, suitability study of factors related and the exploration of planning and/or design that is suitable for tourism development in valuable socio-environmental area. The course will mainly study from the real case.

ARC 421 Studies in Contemporary City **3 (3-0-6)**

Prerequisite: none

An introduction to the foundation of city and urban theory. The class focuses on the observation and the analysis of the contemporary city, which covers both the physical and imaginative dimension. This class also looks at some influential schools of thought from Modernism to Postmodernism, which play important role in the city evolution. The class also provides some critical thoughts and perspectives on the cultural studies that relates to the existing city context.

ARC 435 Thai Architectural Studies 3 (2-2-6)

Prerequisite: none

A study of buildings of non-religious types and human settlements in Thailand. It uses historical and survey methods in order to develop a working understanding of the relationship between creation of architecture and its local context. It introduces students to a variety of topics ranging from: ritual and beliefs related to buildings; materials, constructions and design formulae for 'traditional' residential buildings; Bamboo houses: agricultural buildings, farms and granary; non-religious building in the temple; Pavilion (Sa-la), spiritual houses, terminal buildings and markets. It also includes human settlements in mountaineer, riverine, coastal, borderline and habitats.

ARC 436 Architectural Conservation: An introduction 3 (1-4-6)

Prerequisite: none

An introduction to the concepts of conservation and their applications on ways in which peoples manage their built environments. Examples are drawn from Europe and Thailand. This course comprises three sections. The first of which is concerned with the development of rationales behind conservation practices in Europe and other regions around the world: the essence of the international conservation charters (UNESCO) and their weaknesses. The second section introduces students to conservation process including documentation and techniques used in building conservation. The last section discusses the idea of area conservation and the subsequent controversy over decision to conserve. The study is conducted with lectures, group discussions, and individual case study.

ARC 455 Computer in Architectural Design 3 (1-4-6)

Prerequisite: none

The use of computer in architectural design, exhibition, communication and searching of various methodologies that could be applied in the design process by emphasizing in the creation of architectural space.

ARC 457 Housing 3 (2-2-6)

Prerequisite: none

The study focuses on standards and classifications of residential units, including the procedure, regulations and guiding concept in providing living accommodation for the community. The study includes problems affecting peoples' accommodation both in urban and rural areas. Instruments, building codes, occupancy standards, and zoning by-laws are examined.

ARC 459 Music Appreciation 3 (3-0-6)

Prerequisite: none

Studies include characteristics of classical musical instruments, musical development of pattern and form, guidelines for appreciation of classical music from both Eastern and Western cultures.

ARC 497 Introduction to Facilities Management 3 (3-0-6)

Prerequisite: none

Facilities Management includes different aspects of professional fields; for example, space planning, basic programming, project management, cost estimation and control, work planning, design process administration, maintenance and management.

INA 314 Aesthetics 3 (2-2-6)

Prerequisite: none

An investigation into appreciation of design philosophy in form and other elements and the meaning of aesthetic values in relation to other elements of architecture and interior architecture.

INA 315 Visual Design 3 (2-2-6)

Prerequisite: none

Study and carry out experiments in visual design by using lines, shapes, forms, surface texture, color, proportion and scale, based on principles of design such as unity, balance, contrast and harmony; accentuation of design elements both in two and three dimensional design work. Emphasis is made on the fundamental principles, interrelationships of all branches of visual arts, and the applications into interior architectural design, in view of future applications to wide range of design disciplines.

INA 317 Introduction to Painting 3 (1-4-6)

Prerequisite: none

To learn basic color and brush manipulations and terminology, the use of glazes, varnishes, media, building and stretching canvases, preparation of alternative supports. To encourage the development of a personal creative sensibility and analytic abilities through critiques and discussions. To encourage increased visual literacy and the capacity to evaluate and describe works of art. To demonstrate and develop variety of space and color relationships. To produce work employing various compositional strategies.

INA 318 Interior Architectural Perspective Drawing 3 (1-4-6)

Prerequisite: none

The course is aimed to develop the ability to draw and sketch a 3-dimensional image of interior architectural project including other methods such as orthographical projection as well as basic coloring and shading will be introduced for the needs of visual communication. The course is designed for students to be equipped with theoretical knowledge and hands on experience in using different media techniques such as pencil, pen, ink, color plate, marker, etc. Students will also be asked to develop individual project for interior architectural project presentation.

INA 326 Thai Ornament 3 (2-2-6)

Prerequisite: none

Studies include detailed decorative elements, which are used as special features in Thai architecture both for interior and exterior design. The study includes field surveys and studio design works.

INA 411 Advanced Presentation Method 3 (1-4-6)

Prerequisite: INA 211

Studies include the development of personal skills in advance presentations of work, competition quality presentations, psychology, criticism, client selection deliberations, case studies, video presentations, combined media presentations, and contact with respective field practitioners.

INA 412 Advanced Computer Applications in Interior Architectural Design 3 (1-4-6)

Prerequisite: INA 211

Studies include the introduction into the use of advanced Computer Aided Design software and its application to interior architectural design and presentation and experience in using existing software tools and exploration of computer graphics media. Emphasis is placed on advance interior architectural drafting, drawing (2 and 3 dimensional) and rendering, animation, file establishment with corporate users, and computer-aided design software use.

INA 451 Interior Graphics 3 (1-4-6)

Prerequisite: none

Studies include composition of elements, type marks symbols, signage, logos etc. Emphasis is made on design development from the initial concept to the use of photographic art. History of events and application of a design theme will be applied to the design.

INA 452 Exhibition Design 3 (1-4-6)

Prerequisite: none

Studies include the design and construction of permanent and knock-down display units for exhibitions, exercises in design and construction of units with the use of a wide range of considered; budget allocation, installation, systems, and typical packaging, handling and transportation methods.

INA 453 Garden Design for Interior Architecture 3 (1-4-6)

Prerequisite: none

Studies include a variety of plants in architectural settings used as interior and exterior decoration of buildings. Emphasis is on their biological nature, environmental effect, reproduction methods maintenance and appropriate utilization.

INA 454 Special Topic Study I 3 (x-x-x)

Prerequisite: none

Special study about an architecture topic that is adjusted to individual needs.

INA 455 Special Topic Study II 3 (x-x-x)

Prerequisite: none

Special study about an architecture topic that is adjusted to individual needs.

INA 456 Special Topic Study III 3 (x-x-x)

Prerequisite: none

Special study about an architecture topic that is adjusted to individual needs.

INA 495 Professional Sales and Marketing 3 (2-2-6)

Prerequisite: none

Studies include the range of interior architectural services; preparation of proposals for client; public relations by using media, competition and creation of image for the projects; areas of most productive and profitable markets; exploration into the process, services and materials available for the on-going exercises of project acquisition. Benefits of professional peer societies are examined for their usefulness toward the end of professional sales.

INA 497 Interior Architectural Case Studies and Fieldtrips 3 (1-4-6)

Prerequisite: none

The study is to familiarize students with basic concepts, design philosophy and design analysis in various aspects relating to commercial interior planning, design and construction. This is done by way of visiting real sites. In addition to normal class procedures, students have to do their own self-experiments, discussion and research.

INA 553 Independent Study I 3 (1-4-6)

Prerequisite: none

The primary purpose of an independent study course is to provide students with the opportunity to explore a special study topic that is not available through regular course offered. The topic is of mutual interest to the faculty and the student.

INA 554 Independent Study II 3 (1-4-6)

Prerequisite: none

The primary purpose of an independent study course is to provide students with the opportunity to explore a special study topic that is not available through regular course offered. The topic is of mutual interest to the faculty and the student.

INA 596 Business Management and Ministration 3 (2-2-6)

Prerequisite: none

Studies include a fundamental understanding in business management; codes of professional practice; basic principles in management; guiding concepts in management; corporate cost accounting; design and construction documentation; office administration procedures, and corresponding interior architectural responses to corporate needs.

IND 339 Photography 3 (1-4-6)

Prerequisite: none

Principles of Photography. Processes of Photography. Tools and techniques exploration. Artistic and aesthetic self-expression through photography.

INA 431 Behavioral Analysis and Design 3 (2-2-6)

Prerequisite: none

Human perception, cognitive and behavioral reactions. Human interactions with machines, product and environments. Application to design.

Free Electives Not less than 6 Credits