

5 Years Structure

Architecture Program

School of Architecture and Design, KMUTT

Name of Program

Bachelor of Landscape Architecture

Degree

Full name: Bachelor of Landscape Architecture,
International Program

Abbreviate name: B.L.A. (Landscape Architecture),
International Program

The Objectives of the Program

- To cultivate a landscape architect who has an extensive and holistic view on technology, ecology, society and political and as a social change agent through the multidisciplinary areas of collaboration
- To cultivate a landscape architect who can apply knowledge and skills in landscape design, research and related fields with responsibilities to humanity, society, and environmental conservation including the differences among social and cultural contexts
- To build up research and academic collaborations with the public and private sectors, including NGOs in the national and international levels

Program Duration

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

Curriculum

Total Program Credits 177 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 140 credits

- Fundamentals Courses 32 credits
- Core Courses 48 credits
- Technology Courses 18 credits
- Supporting Courses 33 credits
- Architectural Elective Courses
not less than 9 credits

Free Elective Courses not less than 6 credits

Landscape Architecture Program

Landscape 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 221	Academic English in International Contexts	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		
Code	Course	Credit*
ARC 116	Design Drawing	3(1-4-6)
ARC 118	Design Fundamentals II	4(1-6-8)
LNG 222	Academic Listening and Speaking In International Contexts	3(3-0-6)
GEN 111	Man and Ethics of living	3(3-0-6)
GEN 241	Beauty of Life	3(3-0-6)
XXX xxx	Free Elective I	3(x-x-x)
Total		19(x-x-x)

Year 2

First Semester		
Code	Course	Credit*
LAN 225	History of Landscape Architecture	3(3-0-6)
LAN 241	Landscape Architectural Design I:6(2-8-12)	
LAN 261	Landscape Materials and Construction	4(2-4-8)
LAN 251	Plant Materials	3(3-0-6)
GEN xxx	Elective I	3(x-x-x)
Total		19(x-x-x)

Second Semester		
Code	Course	Credit*
LAN 211	Landscape Architecture Presentation	3(1-4-6)
LAN 231	Modern Landscape Design and Theory	3(2-2-6)
LAN 242	Landscape Architectural Design II:6(2-8-12)	
LAN 262	Landscape Structure and Construction	4(2-4-8)
LAN 252	Planting Design Principles	3(3-0-6)
LAN 271	Landscape Architectural Experience I 3(S/U)	
GEN 101	Physical Education	1(0-2-2)
Total		23(11-18-38)

Year 3

First Semester		
Code	Course	Credit*
LAN 332	Contemporary Landscape Design and Environmental Sustainability	3(3-0-6)
LAN 343	Landscape Architectural Design III:6(2-8-12)	
LAN 353	Forestry	3(3-0-6)
LAN 363	Landscape System and Technology	4(2-4-8)
GEN xxx	Elective II	3(x-x-x)
Total		19(x-x-x)
Second Semester		
Code	Course	Credit*
ARC 352	Urban Planning	3(2-2-6)
LAN 333	Man and Ecology	3(2-2-6)
LAN 344	Landscape Architectural Design IV:6(2-8-12)	
LAN 372	Landscape Architectural Experience II 3(S/U)	
LAN 381	Sustainable Technology	3(3-0-6)
LNG 321	Academic Reading and Writing In International Contexts	3(3-0-6)
Total		21(12-12-36)

Year 4

First Semester		
Code	Course	Credit*
LAN 445	Landscape Architectural Design V:6(2-8-12)	
LAN 482	Innovative Technology	3(3-0-6)
LAN 494	Professional Practice	3(3-0-6)
GEN 351	Modern Management and Leadership	3(3-0-6)
LAN xxx	Landscape Architectural Elective I 3(x-x-x)	
Total		18(x-x-x)

Second Semester		
Code	Course	Credit*
LAN 446	Landscape Architectural Design VI:6(2-8-12)	
LAN 491	Cooperative Learning	6(0-35-18)
Total		12(2-43-30)

Year 5

First Semester		
Code	Course	Credit*
Plan 1: Cooperative Learning		
LAN 501	Thesis Preparation	3(1-4-6)
LAN 593	Landscape Architectural Design 6(0-35-18)	
LAN 594	Exhibition and Event Management	3(1-4-6)
LAN xxx	Landscape Architectural Elective II 3(x-x-x)	
XXX xxx	Free Elective I	3(x-x-x)
Total		18(x-x-x)

Second Semester		
Code	Course	Credit*
LAN 502	Thesis	9(0-18-36)
LAN xxx	Landscape Architectural Elective III 3(x-x-x)	
Total		12(x-x-x)

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 for 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 241 Beauty of Life 3(3-0-6)

Prerequisite : None

This course aims to promote the understanding of the relationship between humans and aesthetics amidst the diversity of global culture. It is concerned with the perception, appreciation and expression of humans on aesthetics and value. Students are able to experience learning that stimulates an understanding of the beauty of life, artwork, music and literature, as well as the cultural and natural environments.

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 221 Academic English in International Contexts 3(3-0-6)

Prerequisite: none

The course aims at developing the confidence and 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 reading for main ideas, summarizing skills, critical reading and interpretation skills through the use of real-world content .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 .In terms of speaking, the focus is on sharing opinion and exchanging information on issues related to the learners' content areas or their field of interest .In terms of listening, the focus is on listening to English talks and taking notes from authentic input.

LNG 222 Academic Listening and Speaking in International Contexts 3(3-0-6)

Prerequisite: none

This course aims at developing confidence and academic listening and speaking skills necessary for learners in an international program .The teaching and learning styles involve an integration of English into learners' content areas to enable them to think critically and communicate effectively .Learners will be able to listen to extended speech and lectures in their fields, share ideas and express opinions, conduct an interview for professional, collect data and present a survey project.

LNG 321 Academic Reading and Writing in International Contexts 3(3-0-6)

Prerequisite : LNG 222

The course aims at developing confidence and academic reading and writing skills necessary for learners in an international program .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 experience 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 140 Credits

Fundamentals Courses 32 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.

LAN 225 History of Landscape Architecture 3 (3-0-6)

Prerequisite: none

Explore the historical evolution of gardens and landscapes from ancient times to the classical landscape. Critical analysis of cultural landscapes through the investigation of philosophy, aesthetic, design articulation and social history of landscape architecture in the Eastern and Western traditions.

LAN 211 Landscape Architecture Presentation: Digital Visualization 3 (1-4-6)

Prerequisite: none

Basic knowledge and workflows of digital techniques in landscape architectural representation and graphics, including 3D and rendering software, and the use of CAD/CAM facilities for model making.

LAN 231 Contemporary Landscape Design and Environmental Sustainability 3 (3-0-6)

Prerequisite: none

Introduction to analysis of Modern landscape architecture impacts on man, physical environment and settlement, and ecology. Emphasizing on concepts and developments in landscape architecture design and theory behind: design style, paradigm and background, and landscape architectural design principles, landscape designing and planning process and methodology at various scales.

LAN 332 Contemporary Landscape Design and Environmental Sustainability 3 (3-0-6)

Prerequisite: none

Study the inspiration of sustainable and ecological landscape architecture. Investigate, analysis, and examine landscape architecture roles and strategies towards the sustainability challenges today. This course covers essential concepts and relevant theories of landscape architecture and sustainable development.

LAN 333 Man and Ecology 3 (2-2-6)

Prerequisite: none

Study the inspiration of sustainable and ecological landscape architecture. Investigate, analysis, and examine landscape architecture roles and strategies towards the sustainability challenges today. This course covers essential concepts and relevant theories of landscape architecture and sustainable development.

Core Courses 48 Credits

LAN 241 Landscape Architectural Design I:

Spatial Composition 6 (2-8-12)

Prerequisite: ARC 118

Basics of Landscape architectural design: two-and three-dimensional design, spatial sequence, as applied to small-scale projects, 1-3 buildings, with simple program and context, earth structures and construction materials. Introduced to fundamental principles of landscape design; compositions of landscape components, space and mass, path and transition, human needs and functions. Emphasizing the design process and principals involved in organizing and giving form to outdoor space to create site-specific design.

LAN 242 Landscape Architectural Design II:

Concept to Form and System6 (2-8-12)

Prerequisite: LAN 242

Apply fundamentals of landscape design to small-scale site-planning projects with 3-20 buildings. Introduces basics of data collecting, research and site inventory, user analysis, design process, design principles, construction materials, and a wide array of graphic representation. Explore a variety of conceptual bases for site design, including response to ecological and cultural features, context, and temporal processes; programming requirements and social/behavioral theory; materiality; and design precedents.

LAN 343 Landscape Architectural Design II: Park and Recreation 6 (2-8-12)

Prerequisite: LAN 242

Apply multi-layered site analysis skills, human behavior, environmental psychology and take a critical stance on the assemblage of data of more complex Landscape architectural typologies with more specific constraints considering arrangement of buildings, site systematic and slope engineering system, site circulation, environmental concerns and responsibility and other landscape design elements in public park and recreational projects. Broad range of challenges faced during a design process - from initial

concept and strategic development to design and construction detailing.

LAN 344 Landscape Architectural Design IV:

Studio Plus 6 (2-8-12)

Prerequisite: LAN 343

Articulation of large-scale master plan for urban as well as natural contexts (Part I and II) Broader and macro-scale issues such as urban planning, geography, public policy, public infrastructure, environment, sustainability and politics will be introduced, discussed and analyzed leading to create landscape design that preserve and enhance the tangible as well as intangible quality of the project within contemporary context. **First part** focuses on Cultural Landscape planning and design at the community and neighborhood context. **The second part** focuses on Ecological Landscape planning, emphasis on generating planning and design strategies for urbanization and development that are informed by an understanding of the ecology and culture of the region and based on principles of sustainability. Internal Collaboration with Architecture students will be applied.

LAN 445 Landscape Architectural Design V:

Studio Co-lab 6 (2-8-12)

Prerequisite: LAN 344

This course is an advanced studio projects addressing various aspects of landscape architecture and make up part of the landscape architecture program's interdisciplinary collaboration in an unconventional studio setting. The studios offers an opportunity of learning according to students' individual interest on exploring diverse design directions of (larger scale) projects with great complexity and integration of various factors related to Landscape architectural design. Each student can select his/her own interest project from the following studio Co-Lab tracks: 1. Environmental approach 2. Landscape and Architecture approach 3. Community engagement approach 4. Urban ecological approach 5. Landscape as art narrative approach. Each track is designed to align with the expertise of selected professional landscape company or public organization (Thai or international).

LAN 446 Landscape Architectural Design VI:

Studio Co-lab WIL 6 (2-8-12)

Prerequisite: LAN 445

This intensive project based design studio exposes students to a wide array of landscape scales, types, contexts, and topical issues under work integrated learning program. The studio offers students a supervised off-campus experience in a close collaboration between studio instructors and participating Landscape Architecture offices and industries. This design studio course exposes students to the realities of the landscape architecture profession. LAN446 studio is the first part of the unique 6-months "Landscape Architecture Practice program", containing 3 consecutive courses: LAN 446, LAN 491, and LAN 593.

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

Prerequisite: LAN 446

Learn how to develop individual interest related to contemporary debates surrounding longstanding disciplinary problems. Student position their own projects between or within the present-day manifestations into a landscape architectural question and proposition, how to set up the research conduct and provide the context for student thesis and help move beyond the personal interpretation of "known facts", concluding and culminating all research information into academic documentation formats.

LAN 502 Thesis 9 (0-18-36)

Prerequisite: LAN 501

Intensive development of a comprehensive landscape design and/or independent design project. This thesis course continues from Thesis Preparation, which covered intensive research and study of thesis and project proposal. 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.

Technology Courses 18 Credits**LAN 261 Landscape Materials and Construction 4 (2-4-8)**

Prerequisite: none

Overview of the various building materials in landscape architecture, their specific characteristics and design implementations. Introduces construction methods for hard surfaces (Roads, walkways/Paths, Squares, Play & Sport fields) and vegetation surfaces and intro to cost estimate.

LAN 262 Landscape Structure and Construction 4 (2-4-8)

Prerequisite: LAN 261

Constructional principles and techniques associated with various building elements in Landscape Architecture. Divided into 3 modules, Module 1 : Structural elements and building methods for small scale constructions. Module 2 : Construction methods of water installations, ponds, and planting pools. Module 3 : Specific design of urban furniture, playground and sport elements. Set up construction drawing using AutoCad and cost estimate report

LAN 363 Landscape System and Technology 4 (2-4-8)

Prerequisite: LAN 262

Students will develop critical / analytical thinking and be able to apply the understanding for technical grading interventions including slope analyses and modifications, ground modeling, topographic mapping conventions, surveying systems and problems solving as applied to built landscapes that integrate to the landscape design.

LAN 381 Sustainability Technology 3(3-0-6)

Prerequisite : none

Importance of sustainable design in built environment and in landscape design with main focuses on innovative technologies employee to fulfill development human comfort factors while minimizing environmental impacts. Energy efficient landscaping (passive design), integrated water resource management, pool system, fountain and related systems, green construction materials, vegetation technology and planting method, green roof and vertical garden and stormwater management.

LAN 482 Innovation Technology 3 (3-0-6)

Prerequisite : LAN 381

Bio-engineering method with focus on sustainability, integrated engineering technology in landscape architecture: technical-biological bank protection, biological slope stabilization techniques, waste water treatment with plants, climate change mitigation, as well as acoustics and landscape lighting.

Supporting Courses 33 Credits**ARC 352 Urban Planning 3 (2-2-6)**

Prerequisite: none

Explaining various definitions and aspects of urbanism or city and planning. Theories and ideas about urban planning profession. Theories and ideas about urban design profession. Formations of European and North American cities. Analyzing historical and cultural contexts of cities in Thailand. Comparing Thai metropolises with those in western sphere. Practice of creating and implementing city planning and policies such as land use planning transportation planning, and open space planning. Management of urban facilities and utilities such as drainage system, waste water treatment, street lighting, road, and public transportation. Introduction to community development and participation process in planning. With reference to case studies of Urban Planning.

LAN 251 Plant Materials 3 (3-0-6)

Prerequisite: none

Importance of plants as design elements in natural and cultural context. The content covers botanical characteristics and field identification of common landscape plants in tropical region.

LAN 252 Planting Design Principles 3 (3-0-6)

Prerequisite: LAN 251

Study of plant material and importance role in ecology. Focusing on exploration of vegetations and their environmental impacts upon conscious design application. This course addresses the development process of planting design, technical drawings, and specification standards of plant materials including considerations for aesthetics, spatial design and plant selection criteria.

LAN 271 Landscape Architectural Experience I
3 (S/U)

Prerequisite: none

This course requires students to participate in one of the offered design-build workshops (DBW) according to their individual interest. Each student can select his/her own interest project from the following workshops: 1.Landform and Planting Design 2. Site Engineering and Water Management 3. Advanced Landscape Construction 4.Ecology & restoration. A two-week intensive module runs during Summer or Winter break.

LAN 372 Landscape Architectural Experience II
3 (S/U)

Prerequisite : none

This course requires students to participate in one of the offered collaborative workshop modules according to their individual interest. Module I: International workshops abroad in collaboration with partner universities (global networking). Module II: Collaborative Design workshops in Bangkok. Module III: Collaborative Workshops in Thailand, on-site collaborative studio workshop with local partners and communities. Each two week intensive module runs during summer or winter break in collaboration with a partner university and / or in collaboration with local partners and key professionals from different fields.

LAN 353 Forestry **3 (2-2-6)**

Prerequisite: none

Forest ecology, forest types and benefits, aerial photo interpretation for forest mapping and land use: mapping, scaling, and analysis of environment and topography including soils, water, air, minerals and plants, national park and forest reserves, forest fire benefit and protection, forest plantation and community forest, forest for recreation, principle of management and planning of forest recreation areas.

LAN 491 Cooperative Learning **6 (0-35-18)**

Prerequisite: LAN 445

Accumulate knowledge and direct experiences needed for professional career including construction drawing, drafting design, site construction, professional practice skills in public or private landscape architecture design-related industries.

LAN 494 Professional Practice **3 (3-0-6)**

Prerequisite: none

Understanding the emerging role of professional landscape architect, professional ethics, licensure, professional services, business developments, contracts and project management, construction cost estimation, professional procedures, office management, collaborative ventures, and related laws and regulations.

LAN 593 Landscape Architectural Design and Criticism
3 (0-6-6)

Prerequisite : none

Exploring and assessing from history to current state of theory, idea, concepts and design approaches in landscape architecture and related design disciplines such as art, ecology, geography, architecture and anthropology, including design inspiration, influences, narrative and explanatory theories to method of implementation and the con-sequence results.

LAN 594 Exhibition and Event Management
3 (2-2-6)

Prerequisite: none

Share and exhibit the outcome of individual Cooperative Learning experience (LAN446 + LAN 491) in 2-weeks intensive seminar and design-build workshop at the beginning of Year 5. Practice the basics of professional exhibition design and create a specific event program including Dialogue platform: Panel discussion, lectures by guests and students to accompanying their exhibition.

*****Landscape Architectural Elective Courses Not less than 9 Credits**

LAN 321 Analysis of Western Landscape Architecture and Historical Parks**3 (2-2-6)**

Prerequisite : none

Analyze and evaluate Western Landscape architecture site (Europe). Deeper understanding of Western Landscape Architecture in context with art, architecture, and Urbanism throughout history. Preliminary reading on the cities and region, Various assignments (sketching, research, short presentations), and to-be-visited places prior to the study trip will be required.

LAN 322 Analysis of Contemporary Urbanism
3 (2-2-6)

Prerequisite : none

Advanced, interdisciplinary collaboration study trip exposes student to a wide array of case studies in Planning, Urban Design, and Landscape Architecture, including sustainable development, the interplay between open space and built form, the rehabilitation of existing areas as historic districts, commercial corridors, and the improvement of squatter settlements, city expansions and new towns, housing, mixed-use developments, and areas of new centrality, the improvement of open space systems, and site-specific interventions of parks, plazas, streetscape and gardens.

LAN 323 Cultural Landscape **6 (2-2-6)**

Prerequisite: none

Theory and methodology associated to cultural landscape. Understand its value, sense of place, influence of culture and natural contexts in creating identity of human settlement and built environment, adaptive use in new contents. Introduction to cultural landscape conservation strategy and management.

LAN 451 Analysis of ecological Interconnections
3 (3-0-6)

Prerequisite: none

This educational journey and workshop explores a sequence of sites that illustrates the changing geology and topography of the regional physiographic provinces. Analysis of the inter-connections between the underlying geology, topography, hydrology, soils, vegetation, wildlife, and human interventions will reveal patterns reflecting process and demonstrate key ecological principles.

LAN 452 Park and Recreation **6 (2-2-6)**

Prerequisite: none

Introduction to types of public space, history and trends, human behavior in built environment, environmental psychology, urban contexts related to public space, law and management, the development of idea for public park.

LAN 453 Advanced Ecological Design **3 (2-2-6)**

Prerequisite: none

Topics in ecological design and new technologies related to contemporary landscape architecture. The courses explore topics such as ecology, sustainability, habitat restoration, hydrology, green roof and green architecture technology, soil technology, and other techniques pertinent to the construction of ecologically dynamic, functioning landscapes, large-scale land reclamation projects, Restoration Ecology, and Sustainable Developments

LAN 454 Arboretum Management: Understanding Plants **3 (3-0-6)**

Prerequisite: none

Study plants from an organismal perspective, an applied/practical perspective, an aesthetic perspective, an environmental perspective, and an evolutionary perspective. Utilizing the plant collection of the BKT Arboretum as a living laboratory and the expertise of arboretum staff. Session topics integrate both theoretical and hands-on practical work.

LAN 455 Advanced computer Applications in Landscape Architectural Design **3 (1-4-6)**

Prerequisite: none

Introduces students to a specific Landscape Architecture Computer Programs. Produce professional communication materials.

LAN 456 Advanced digital media in Landscape Architectural Design **3 (1-4-6)**

Prerequisite: none

Advanced instruction in the uses and applications of various digital media, including Geographical Information Systems (GIS), 3-D modeling, video animation, and the use of Drones. This course focuses on the nature and use of raster-oriented Geographic Information Systems (GIS) for the analysis and synthesis of spatial patterns and processes (Modeling Geographic Space).

LAN 457 Landscape Construction Management and Cost Estimate **3 (1-4-6)**

Prerequisite: none

Principles of Landscape Construction Management Strategy including, Project scheduling, Project and operate budgets, Prepare for meetings, Material Markets, Field project management , On-site visit, Maintenance strategy. Cost estimate and set up standard report in Construction spread sheet.

LAN 551 Special Topic Study **3 (1-4-6)**

Prerequisite: none

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

LAN 552 Individual study **3 (0-6-6)**

Prerequisite: none

Advanced elective studio provides opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, and/or guest professors are invited to run these course. Collaborative options (between Landscape and the Departments of Architecture) are offered across the School.

LAN 553 Independent Study **3 (1-4-6)**

Prerequisite: none

Independent study course undertaken in any year. Provide highly motivated students who have demonstrated their ability to work independently with the opportunity to pursue topics that extend the boundaries of the curriculum. For permission, students must prepare a written proposal in the preceding semester and apply for approval from the faculty.

ARC 125 History of Architecture and Interior Architecture I

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

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.

ARC 330 Analysis of Western and Architecture 3 (2-2-6)

Prerequisite: none
The course provides the opportunity for students to analyze and evaluate western art and architecture directly on site. Various assignments (sketching, research, short presentations) in museums and specific architecture project sites will enable students to get a deeper understanding of western art and architecture throughout history.

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 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 processes 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.

CMD 364 Web Design 3 (2-2-6)

Prerequisite: none

This course introduces students to the web design and development lifecycle. The course focuses on theory, tools, techniques and standard in the design phase including layout design, interface design, components of web e.g. typography, color, media, contents, etc. It also covers the standards and trend in modern web design such as responsive web design (RWD) and other modern concepts in web design. The practical exercises cover the usage of tools and techniques in design a web including the implementation of design into a real web site using a current available instant web implementation tools.

CMD 365 Web Development for Designer 3 (1-4-6)

Prerequisite: none

This course introduces students to the web design and development lifecycle. The course focuses on theory, tools, techniques and standard in the design phase including layout design, interface design, components of web e.g. typography, color, media, contents, etc. It also covers the standards and trend in modern web design such as responsive web design (RWD) and other modern concepts in web design. The practical exercises cover the usage of tools and techniques in design a web including the implementation of design into a real web site using a current available instant web implementation tools.

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.

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.

Free Electives Not less than 6 Credits