

Curriculum

Bachelor of Science

Field of Study

Architecture and Built Environment

New Curriculum, B.E. 2570

Kasetsart University

สภา มก. อนุมัติในการประชุมครั้งที่ 10 / 2569
เมื่อวันที่ 26 มีนาคม 2569

Curriculum Details

Curriculum Bachelor of Science

Field of Study Architecture and Built Environment (International Program)

New Curriculum, B.E. 2570

According to the Higher Education Program Standards B.E. 2565 (A.D. 2022)

Name of Higher Education Institution: Kasetsart University

Department/Faculty/Campus: Faculty of Architecture, Bangkhen

1. Basic Information about the Curriculum

1.1 Curriculum Code and Title

Curriculum Code

Curriculum Title

Thai	หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง (หลักสูตรนานาชาติ)
English	Bachelor of Science Program in Architecture and Built Environment (International Program)

1.2 Degree Name and Field of Study/Major

Full Name (Thai)	วิทยาศาสตรบัณฑิต (สถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง)
Degree Abbreviation	วท.บ. (สถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง)
Full Name (English)	Bachelor of Science (Architecture and Built Environment)
Degree Abbreviation	B.S. (Architecture and Built Environment)

1.3 Major (if any)

None

1.4 Total Credits Required for the Entire Program

Not less than 120 credits

1.5 Curriculum Format

1.5.1 Format	4-year bachelor's degree program (academic)
1.5.2 Language of Instruction	Foreign language (English)
1.5.3 Admission	Admits both Thai and international students
1.5.4 Collaboration with Partner Institutions	A program solely offered by the institution
1.5.5 Degree Conferral	Degree awarded in a single field of study

1.6 Curriculum Status and Curriculum Approval Process

Curriculum Status

- New program scheduled to commence in Semester 1, Academic Year 2027 (B.E. 2570)

Curriculum Approval Process

- Reviewed by the Academic Committee of Kasetsart University in Meeting No. 10/2569 held on (date) 29 ตุลาคม 2569
- Approved by the University Council of Kasetsart University in Meeting No. 10/2569 held on (date) 26 พฤศจิกายน 2569

1.7 Readiness for Public Disclosure of a Quality and Standardized Curriculum

The program will be published as a quality program in accordance with Higher Education Qualifications Standard, 2022 (B.E. 2565) in Academic Year 2029 (B.E. 2572)

1.8 Careers Available After Graduation

1) Designers and analysts of the human living environment, such as User Experience and service design, and well-being related work.
2) Heritage and cultural landscape specialists and coordinators, including conservation and museum work.
3) Building performance and environmental quality analysts, such as green building and Building Information Modeling (BIM)-related work.
4) Researchers and project assistants in architecture, urban, and environmental fields.
5) Consultants or project officers in innovation, digital, and sustainability fields.
6) Community project coordinators and developers in landscape, culture, and environmental fields.
7) Data officers, data-driven designers, and smart city systems specialists for urban development.
8) Project coordinators and design communication specialists, such as interpretation, storytelling, and creative media.

2. Philosophy, Objectives and Learning Outcomes of the Curriculum

2.1 Philosophy of the Curriculum

The program aims to develop graduates with strong interdisciplinary competencies in design, environment, and technology, grounded in real-world contexts, ethical practice, and social responsibility. Through experiential and collaborative learning, students integrate knowledge from architecture, built environment studies, digital innovation, environmental science, cultural heritage, and sustainability to respond to complex global and local challenges. The curriculum is structured around three core principles: Design for Well-Being, which promotes human-centered spatial design that supports health, quality of life, and social inclusion; Heritage Ecosystem, which approaches cultural heritage, vernacular architecture, communities, and cultural landscapes as interconnected and continuously evolving systems; and Building Performance, which develops understanding of climate-responsive design, environmental quality, building efficiency, and digital technologies. Students are encouraged to think critically, work across disciplines, conduct research, and apply design knowledge to improve communities and the environment. The program is not intended as a professional architecture degree leading directly to architectural licensure; instead, it provides flexible design, analytical, technological, and research competencies applicable to diverse careers and further study in the built environment, environmental planning, heritage management, spatial analysis, community development, sustainability, and related creative fields.

2.2 Objectives of the Curriculum

2.2.1 To provide integrated knowledge in architecture and the built environment, combining design, environmental understanding, and digital technology.

2.2.2 To develop analytical thinking, problem solving, and research skills for addressing spatial, social, and environmental challenges.

2.2.3 To build professional competence through experiential, practice-based, and interdisciplinary learning.

2.2.4 To foster ethical awareness, sustainability, and effective communication for work in international and multicultural contexts.

2.3 Program Learning Outcomes (PLOs)

Concept of Curriculum Design

The Bachelor of Science Program in Architecture and Built Environment is designed based on an outcome-based education and backward curriculum design framework. The Program Learning Outcomes are formulated by considering national development strategies, international trends in architecture and the built environment, workforce demands, and

stakeholder expectations, while aligning with the vision, mission, and graduate attributes of Kasetsart University. The curriculum emphasizes integrated and interdisciplinary learning that combines architectural design, built environment studies, environmental analysis, digital technology, and sustainability. Learning and teaching approaches focus on studio-based learning, project-based learning, experiential learning, and problem-based learning, enabling students to develop both theoretical understanding and practical competence. Ethical awareness, social responsibility, and lifelong learning are embedded throughout the curriculum.

In designing the curriculum, alignment with the 20-Year National Strategy (B.E. 2561–2580), the National Education Plan (B.E. 2560–2579), and the Sufficiency Economy Philosophy has been carefully considered, with the aim of producing graduates who can contribute to a secure, prosperous, and sustainable society. The key principles guiding the curriculum design are as follows:

1) Sufficiency Economy Philosophy Principle. The curriculum promotes balanced and integrated development based on moderation, reasonableness, resilience, and good governance. Students are encouraged to apply these principles in architectural and built environment design, planning, and decision making, with consideration for long-term environmental, social, and economic impacts.
2) People-Centered and Community-Oriented Development Principle. The curriculum emphasizes human-centered design and community engagement, aiming to develop graduates who are socially responsible, ethically aware, and sensitive to cultural, social, and environmental contexts. Built Environment is approached as a space that supports well-being, inclusiveness, and quality of life.
3) Sustainability and National Development Vision Principle. In alignment with national goals of security, prosperity, and sustainability, the curriculum prepares graduates to contribute to sustainable urban and rural development, environmental protection, climate resilience, and responsible resource management through architecture and built environment practices.
4) Future-Oriented and Digital Innovation Principle. The curriculum responds to future workforce needs by integrating digital tools, data-informed design, and innovation-driven approaches. Graduates are developed as adaptive and lifelong learners with competencies in digital technology, analytical thinking, and interdisciplinary collaboration suitable for the evolving built environment sector.
5) Inclusive Economic Growth and Social Equity Principle. The curriculum supports inclusive economic development by equipping graduates with skills applicable across

public, private, and community sectors. Emphasis is placed on innovation rooted in local wisdom, cultural landscapes, and creative economies, contributing to reduced inequality and sustainable community development.

The curriculum integrates academic knowledge with practical application through studio-based, project-based, and experiential learning approaches. This design supports the development of professional competence, ethical awareness, and the ability to apply knowledge appropriately in diverse real-world contexts. Furthermore, the curriculum design considers contemporary higher education standards and quality assurance frameworks, including outcome-based education, learner-centered teaching and learning approaches, 21st-century skills, and regional and international frameworks which is the ASEAN University Network Quality Assurance (AUN-QA). These principles ensure that the curriculum is academically robust, socially relevant, professionally accepted, and responsive to changing national and international workforce demands.

2.3.1 External Situations or National/International Workforce Needs

Current national and international contexts indicate a growing demand for professionals in architecture and Built Environment who possess interdisciplinary knowledge, digital competence, and the ability to respond to complex environmental, social, and economic challenges. Rapid urbanization, climate change, environmental degradation, demographic change, and the transformation of cultural and urban landscapes have significantly increased the need for graduates who can integrate design, environmental analysis, technology, and sustainability in built environment practice.

At the national level, Thailand's development directions are guided by the 20-Year National Strategy (B.E. 2561–2580), which aims for the country to become "secure, prosperous, and sustainable" through development based on the Sufficiency Economy Philosophy. This strategy emphasizes integrated development, people-centered growth, innovation, and social equity. These directions require human resources capable of contributing to sustainable cities, resilient communities, environmental quality improvement, and responsible management of natural and cultural resources. Professionals in architecture and Built Environment are therefore expected to play important roles not only as designers, but also as analysts, coordinators, and facilitators working across public, private, and community sectors. The key principles of the national strategy that are directly relevant to workforce development in architecture and Built Environment include:

1) development based on the Sufficiency Economy Philosophy, emphasizing moderation, reasonableness, resilience, and good governance.

2) people-centered development, focusing on well-rounded, knowledgeable, skilled, creative, ethical, and socially responsible individuals
3) National development toward security, prosperity, and sustainability.
4) Preparation for future economic and social transformation through digital-led innovation and lifelong learning, and
5) Economic growth with reduced inequality, driven by local wisdom, cultural capital, and innovation.

Furthermore, the National Education Plan B.E. 2560–2579 (2017–2036) sets a vision for all citizens to receive quality education and lifelong learning aligned with the changes of the 21st century. In this context, higher education is expected to produce graduates who are adaptable, capable of lifelong learning, and equipped with professional competence, ethical awareness, and civic responsibility.

At the international level, the architecture and built environment workforce increasingly demands graduates who can operate in multicultural contexts, communicate effectively in international environments, and adapt to global professional standards. Employers seek graduates with competencies in digital tools, data-informed design, environmental performance assessment, sustainability frameworks, and interdisciplinary collaboration, alongside ethical awareness and social responsibility.

In response to these external situations and workforce needs, the curriculum is designed to equip graduates with integrated knowledge in architecture and the built environment, combining design competence, environmental understanding, and digital literacy. The curriculum aims to prepare graduates who are adaptable, capable of lifelong learning, and able to contribute meaningfully to national and international development in Built Environment sector.

2.3.2 Stakeholder Identification and Methods for Collecting Needs and Expectations

Consistent with the stakeholder classification presented in Section 2.3.6, the curriculum categorizes its key stakeholders into internal and external groups. Internal stakeholders comprise faculty members and current students. External stakeholders comprise employers, academic and professional experts, alumni, and professional organizations. Government and private-sector organizations and community and cultural organizations are included under employers or professional organizations according to their roles. Additional informants, including high school students, guidance counselors, recruitment agencies, and parents, were consulted to provide information on educational demand, program selection, affordability,

recruitment, and learner expectations; however, they were not treated as the primary stakeholder groups used for direct PLO alignment.

Stakeholder needs and expectations were examined through institutional research using a mixed-method curriculum development approach. The research process consisted of four components: document and policy analysis, curriculum benchmarking, focus-group discussions, and an online questionnaire survey.

Document analysis covered the 20-Year National Strategy, the National Economic and Social Development Plan, the National Education Plan, higher education policies, qualification standards, professional expectations, and Kasetsart University's strategies and desired graduate attributes. Benchmarking was conducted against comparable domestic and international programs to examine curriculum structures, credit requirements, areas of specialization, international learning opportunities, tuition fees, and distinctive academic features.

Data-collection methods were selected according to the roles of the stakeholder groups and the type of information required. Focus-group discussions were used to obtain detailed information concerning expected graduate competencies, professional practices, curriculum content, and the proposed PLOs. The online questionnaire was used to collect broader information concerning preferred curriculum content, learning experiences, digital skills, career expectations, affordability, and factors influencing program selection. Document analysis and curriculum benchmarking provided strategic, institutional, professional, and comparative evidence. The stakeholder groups, data-collection methods, and intended uses of the collected information are summarized below.

Table Illustrating Stakeholder Groups, Data-Collection Methods, and Information Collected

Stakeholder group	Classification	Data-collection method	Implementation and information collected
Internal			
Faculty members	Internal	Focus-group discussion and online survey	Faculty members participated in semi-structured online discussions and completed the questionnaire. Data concerned curriculum direction, disciplinary knowledge, teaching resources, PLO coverage, learning activities, and assessment methods.
Current students	Internal	Student feedback and online survey	Current students enrolled in other related architecture, design, and built-environment programs provided information concerning learning experiences, workload, student

Stakeholder group	Classification	Data-collection method	Implementation and information collected
Internal			
			support, international activities, and expectations regarding curriculum content and flexible learning pathways.
External			
Employers	External	Focus-group discussion and online survey	Employers and professionals from public, private, and development organizations participated in online discussions and the questionnaire. Data concerned expected graduate competencies, professional attitudes, digital skills, employability, and emerging workforce needs.
Academic and professional experts	External	Focus-group discussion and consultation	Experts reviewed the proposed curriculum and PLOs and provided recommendations concerning academic standards, professional relevance, sustainability, technology, and future roles of graduates.
Alumni	External	Online survey and consultation	Alumni from other relevant architecture, design, and built-environment programs provided information concerning the relevance of knowledge and skills to employment, transition to professional practice, career development, and areas requiring further preparation.
Professional organizations	External	Focus-group discussion, consultation, and document analysis	Representatives and relevant professional documents were used to examine professional expectations, ethical responsibilities, standards, and changes affecting architecture and built-environment practice.
High school students	Additional informants	Online survey	Thirty-five high school students interested in architecture and related fields responded to questions concerning preferred content, learning formats, international experiences, career expectations, affordability, and factors influencing program selection.
Guidance counselors and	Additional informants	Focus-group discussion,	Information was collected concerning student interests, recruitment conditions, program

Stakeholder group	Classification	Data-collection method	Implementation and information collected
Internal			
recruitment agencies		consultation, and online survey	image, admission information, tuition fees, and factors affecting the selection of an international program.
Parents of prospective students	Additional informants	Online survey	Information concerned affordability, confidence in the program, student support, career opportunities, and expectations regarding educational quality.

Focus-group discussions followed a semi-structured discussion guide covering graduate attributes, national qualification standards, the appropriateness of the proposed PLOs, curriculum flexibility, professional relevance, and future career roles. Discussions were conducted online, recorded with participants' consent, transcribed, and analyzed through qualitative content analysis. The online questionnaire was administered through Google Forms and distributed through email and academic and professional networks. A total of 82 responses were analyzed using percentages, means, group comparisons, and thematic coding of open-ended responses. The discussion framework addressed four areas:

1. Expected graduate attributes, competencies, and professional attitudes.
2. The relevance of expected competencies to national qualification standards.
3. The appropriateness and coverage of the proposed Program Learning Outcomes.
4. Recommendations concerning curriculum content, learning flexibility, professional relevance, and the future roles of graduates.

The questionnaire comprised eight sections covering respondent characteristics; preferred curriculum content; studio-, project-, and field-based learning; the use of GIS, BIM, AI, and other digital technologies; expected learning experiences; career and further-study expectations; affordability; factors influencing the selection of an international program; and additional recommendations.

Quantitative data were analyzed using percentages, means, and comparisons across stakeholder groups. Qualitative data from focus-group transcripts, consultation notes, and open-ended questionnaire responses were coded and grouped into recurring themes. Findings from the different methods were then compared and synthesized to identify common expectations, differences among stakeholder groups, emerging professional needs, and implications for the PLOs, curriculum structure, course content, learning activities, and assessment methods.

2.3.3 Analysis of Stakeholder Needs in Graduate Production

National and international economic, social, environmental, and cultural changes have increased the importance of knowledge and competencies in architecture and the built environment. Rapid urbanization, climate change, environmental degradation, demographic change, digital transformation, and the transformation of cultural and urban landscapes have generated demand for graduates who can integrate design, environmental analysis, digital technology, and sustainability. These challenges require graduates who can contribute to the planning, design, management, and regeneration of the built environment in ways that enhance resilience, well-being, and long-term sustainability.

At the national level, Thailand's development directions emphasize sustainable development, innovation-driven growth, digital transformation, and people-centered development in alignment with the 20-Year National Strategy (B.E. 2561–2580) and the National Education Plan (B.E. 2560–2579). These directions highlight the need for graduates who are technically and academically competent and capable of interdisciplinary collaboration, ethical decision-making, community engagement, and adaptation to complex social and environmental conditions. Graduates are therefore expected to perform diverse roles as designers, analysts, coordinators, facilitators, researchers, and project developers across public, private, and community sectors.

The needs and requirements obtained from each stakeholder group were compared to identify recurring expectations, group-specific concerns, and emerging professional requirements. The findings were then classified according to the four domains of the Higher Education Qualifications Standards: Knowledge, Skills, Ethics, and Character (KSEC). This process provided a clear linkage between stakeholder needs and the formulation of the five Program Learning Outcomes.

Table Illustrating the Synthesis of Stakeholder Needs and Requirements into KSEC Domains and PLOs

Stakeholder Group	Key Needs and Requirements	KSEC Domain	Resulting PLOs
Internal			
Faculty members	Integrated disciplinary knowledge, research-informed design, digital technologies, appropriate teaching and assessment, and alignment with institutional identity	Knowledge, Skills, Ethics, Character	PLO 1–5

Stakeholder Group	Key Needs and Requirements	KSEC Domain	Resulting PLOs
Internal			
Current students from related programs	Studio-, project-, and field-based learning, digital skills, flexible learning pathways, international experience, communication skills, and learner support	Skills, Character	PLO 2, PLO 3, PLO 5
External			
Employers	Analysis of complex built-environment problems, application of design and digital tools, professional communication, multidisciplinary teamwork, responsibility, and adaptability	Knowledge, Skills, Ethics, Character	PLO 1–5
Academic and professional experts	Strong academic foundations, research and analytical competence, sustainability, environmental responsibility, intercultural sensitivity, professional relevance, and measurable learning outcomes	Knowledge, Skills, Ethics	PLO 1, PLO 2, PLO 4
Alumni of related programs	Practical preparation for employment, application of academic knowledge in professional practice, communication, adaptability, career development, and lifelong learning	Skills, Character	PLO 2, PLO 3, PLO 5
Professional organizations	Professional and ethical standards, social and environmental responsibility, awareness of affected stakeholders, and understanding of changes in professional practice	Knowledge, Ethics, Character	PLO 1, PLO 4, PLO 5
High school students	Hands-on and studio-based learning, digital technologies, international experience, clear career opportunities, and flexible learning choices	Skills, Character	PLO 2, PLO 3, PLO 5
Guidance counselors and recruitment agencies	Clear program identity, admission information, curriculum structure, international opportunities,	Program positioning and learner support	Used to inform curriculum communication and support systems rather

Stakeholder Group	Key Needs and Requirements	KSEC Domain	Resulting PLOs
Internal			
	affordability, and graduate career pathways		than direct PLO alignment
Parents of prospective students	Educational quality, affordability, student support, safety, international opportunities, and employment prospects	Program feasibility and learner support	Used to inform curriculum management and support systems rather than direct PLO alignment

The synthesis showed that needs concerning disciplinary understanding, contextual analysis, sustainability, and research formed the Knowledge domain. Needs relating to design processes, analytical and digital tools, professional communication, and practical application formed the Skills domain. Expectations concerning professional standards, social responsibility, intercultural sensitivity, and environmental impacts formed the Ethics domain. Requirements concerning responsibility, teamwork, self-management, adaptability, and lifelong learning formed the Character domain.

These four KSEC domains were subsequently translated into five assessable competency areas: analytical understanding; application of design, analytical, and digital tools; professional communication; ethical and responsible decision-making; and responsibility, collaboration, and lifelong learning. These competency areas formed the basis of PLO 1–5 and were subsequently aligned with Year Learning Outcomes, CLOs, learning activities, and assessment methods.

PLO 1: Analytical understanding of architecture and the built environment

Employers, academic experts, and professional stakeholders indicated that graduates must understand relationships among people, places, buildings, landscapes, environmental systems, and cultural contexts. They should be able to examine built-environment problems from multiple perspectives rather than treating design as an isolated activity. Concerns relating to climate change, urbanization, public health, cultural continuity, and community development further require graduates to interpret evidence and identify relationships among physical, social, cultural, and environmental conditions.

These needs were synthesized into PLO 1, which requires students to analyze architectural and built-environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships among people, place, and environment accurately. This outcome responds directly to the needs of employers, public agencies,

communities, and academic stakeholders for graduates who can define problems accurately, interpret contextual evidence, and explain relationships among people, place, and environment before proposing interventions.

PLO 2: Application of design, analytical, and digital tools

Stakeholders emphasized that conceptual knowledge must be translated into practical and evidence-based solutions. Employers expect graduates to select and apply tools appropriate to particular project objectives, scales, and constraints. Faculty members and prospective students also expressed strong interest in studio-based, project-based, field-based, and hands-on learning supported by GIS, BIM, parametric design, environmental simulation, digital fabrication, AI, and data-analysis tools.

These findings led to PLO 2, which requires students to apply appropriate design, analytical, and digital tools to develop, evaluate, and present built-environment solutions. The emphasis is not limited to software proficiency. Students must understand why a tool is selected, how its results should be interpreted, and how evidence can inform design decisions. PLO 2 therefore responds to professional demand for graduates who can connect analysis with implementation and adapt their methods to functional, environmental, cultural, and contextual requirements.

PLO 3: Professional and intercultural communication

Employers and professionals identified communication as essential for working with clients, communities, government agencies, consultants, technical specialists, and multidisciplinary teams. Academic stakeholders also emphasized studio critiques, discussions, reports, presentations, and collaborative projects. As an international program, the curriculum must additionally prepare students to communicate in English and work with people from different academic, professional, and cultural backgrounds.

These needs were translated into PLO 3, which requires students to communicate design concepts, analytical findings, and project outcomes clearly and professionally through visual, written, and oral methods, including digital technologies. This outcome ensures that graduates can select communication methods appropriate to different audiences, explain technical and design information, participate in international academic activities, and contribute effectively to collaborative decision-making.

PLO 4: Ethical, socially responsible, interculturally sensitive, and environmentally responsible decision-making

Government organizations, communities, academic experts, and professional stakeholders emphasized sustainability, climate responsibility, cultural identity, accessibility, social inclusion, and the long-term impacts of built-environment interventions. They expect

graduates to recognize that architectural and spatial decisions affect people, communities, cultural values, resources, and ecosystems. Stakeholders also emphasized that an international curriculum should not separate global knowledge from Thai and local contexts.

These concerns informed PLO 4, which requires students to evaluate architectural and built-environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards. This outcome responds to stakeholder expectations by requiring students to consider who benefits, who may be affected, whether cultural values are respected, whether resources are used responsibly, and whether proposed solutions remain appropriate over time. Ethical and environmental considerations are therefore embedded throughout design and analysis rather than confined to a single course.

PLO 5: Responsibility, teamwork, self-management, and lifelong learning

Employers identified responsibility, time management, teamwork, adaptability, and openness to feedback as essential workplace attributes. Faculty members supported collaborative studios, fieldwork, community engagement, internships, exchanges, and interdisciplinary projects as learning environments in which these competencies can be demonstrated. Rapid technological and professional changes also require graduates to assess their own abilities and continue learning beyond graduation.

These findings led to PLO 5, which requires students to demonstrate responsibility, teamwork, self-management, and lifelong learning through planning, collaboration, self-assessment, and continuous improvement. PLO 5 addresses the needs of employers and institutional stakeholders for graduates who can manage their work, fulfill assigned roles, respond constructively to feedback, adapt to unfamiliar conditions, and work responsibly in diverse local and international settings.

Collectively, the five PLOs translate stakeholder expectations into assessable graduate competencies. PLO 1 establishes the ability to understand and analyze problems; PLO 2 develops the capacity to transform knowledge and evidence into appropriate solutions; PLO 3 ensures that processes and outcomes can be communicated effectively; PLO 4 provides the ethical, cultural, professional, and environmental basis for decision-making; and PLO 5 supports responsible implementation, collaboration, and continued development. Together, they respond to the needs of employers, public agencies, communities, prospective students, academic staff, and Kasetsart University while providing a coherent foundation for curriculum design and assessment.

At the institutional level, the PLOs also align with Kasetsart University's desired graduate attributes, which emphasize personal integrity, responsibility, knowledge creation, and the application of knowledge for societal benefit:

1. Integrity, morality, and ethical responsibility.
2. Determination, diligence, and commitment to professional and personal development.
3. Knowledge creation through critical thinking, creativity, and innovation.
4. Unity and collaboration, including teamwork, adaptability, and the ability to integrate diverse perspectives.

The curriculum has consequently been developed using outcome-based education and backward curriculum design. The PLOs were formulated from external conditions, workforce demands, stakeholder expectations, institutional research findings, and Kasetsart University's mission and desired graduate attributes. The PLOs subsequently guide the curriculum structure, Year Learning Outcomes, CLOs, course content, teaching and learning strategies, and assessment methods.

Institutional research also supports the feasibility and sustainability of graduate production in three areas:

1. Cost-effectiveness: Academic staff, shared facilities, interdisciplinary teaching, and studio- and project-based learning are planned and coordinated to ensure efficient use of available resources.
2. Competitor analysis: Comparable domestic and international programs were examined to benchmark academic standards, identify gaps and distinctive strengths, and avoid unnecessary duplication.
3. Labor-market demand: Findings indicate continuing demand for graduates with integrated competencies in architecture, built-environment analysis, digital technology, environmental responsibility, and sustainability. These findings support the inclusion of the program in the national higher education manpower development plan approved by the Kasetsart University Council.

2.3.4 Determination of Program Learning Outcomes (PLOs)

1. Program Learning Outcomes

PLO 1 (Integrated analysis of the built environment)

Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.

PLO 2 (Design, analytical, and digital application)

Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

PLO 3 (Professional design communication)

Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

PLO 4 (Ethical, cultural, and environmental responsibility)

Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

PLO 5 (Professional responsibility and lifelong learning)

Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

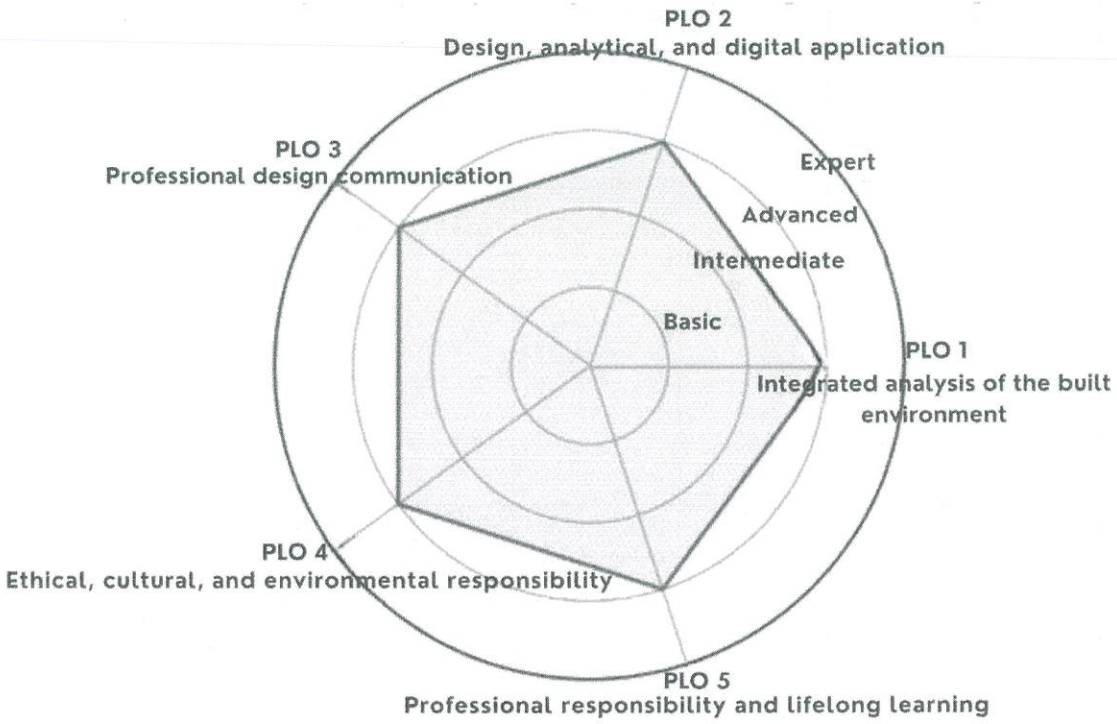
2) Table Illustrating the Determination of Program Learning Outcomes in a Rubric

No.	PLOs	Shorten PLOs	1. Basic	2. Intermediate	3. Advance	4. Expert	Expected Level
1	Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	Integrated analysis of the built environment	**Identify and describe:** Identifies basic built-environment components and describes observable relationships among people, place, and environment using given concepts. Assessment considers factual accuracy, recognition of relevant factors, and correct use of basic terminology.	**Analyze and explain:** Analyzes defined issues using a given framework and explains relationships among physical, environmental, social, and cultural factors. Assessment considers logical organization, appropriate use of evidence, and accuracy of the relationships identified.	**Evaluate and justify:** Critically evaluates complex issues using multiple sources and interdisciplinary perspectives and justifies interpretations by comparing alternatives. Assessment considers depth of analysis, quality of evidence, recognition of interdependencies, and strength of justification.	**Synthesize and formulate:** Synthesizes interdisciplinary knowledge and evidence to formulate original, comprehensive interpretations of complex real-world conditions. Assessment considers originality, systemic understanding, integration of conflicting evidence, transferability across contexts, and professional defensibility.	3
2	Apply appropriate design, analytical, and digital tools to	Design, analytical, and	**Use and reproduce:** Uses basic design,	**Apply and compare:** Applies selected tools to develop design	**Select, integrate, and evaluate:** Independently	**Innovate and optimize:** Integrates advanced or	3

No.	PLOs	Shorten PLOs	1. Basic	2. Intermediate	3. Advance	4. Expert	Expected Level
	develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.	digital application	analytical, or digital tools by following instructions to produce a defined output. Assessment considers procedural accuracy, completeness, basic technical quality, and compliance with specified requirements.	options and compares their performance against given functional, environmental, or contextual criteria. Assessment considers appropriate application, accuracy of outputs, comparison of alternatives, and response to requirements.	selects and integrates appropriate tools to develop and evaluate context-responsive solutions. Assessment considers suitability of tool selection, interoperability, evidence-based evaluation, technical competence, and responsiveness to multiple criteria.	emerging tools to formulate, test, and optimize comprehensive solutions under complex or uncertain conditions. Assessment considers innovation, efficiency, adaptability, validation of results, resolution of competing requirements, and professional feasibility.	
3	Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.	Professional design communication	**Present and describe:** Presents basic ideas and information using prescribed visual, written, or oral formats. Assessment considers basic clarity, accuracy, completeness, legibility, and adherence to the required format.	**Organize and explain:** Organizes and explains design concepts or analytical findings through coherent visual, written, and oral communication. Assessment considers logical structure, consistency across media, appropriate terminology, and audience comprehension.	**Synthesize and communicate:** Synthesizes complex information and communicates professional-level outcomes using media appropriate to the purpose and audience. Assessment considers precision, visual hierarchy, strength of argument, integration of evidence, professional standards, and effective use of digital media.	**Adapt, persuade, and facilitate:** Strategically adapts communication for diverse professional, community, cultural, and international audiences and facilitates informed dialogue or decision-making. Assessment considers persuasiveness, cultural sensitivity, audience engagement, responsiveness to feedback, and effectiveness in complex communication settings.	3
4	Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on	Ethical, cultural, and environmental responsibility	**Recognize and describe:** Recognizes ethical, social, cultural, environmental, and professional issues in a defined situation. Assessment considers	**Explain and apply:** Explains the implications of design decisions and applies given ethical or professional principles to defined cases. Assessment considers relevance of the principles used, recognition of	**Evaluate and justify:** Evaluates alternative decisions against ethical, social, cultural, environmental, and professional criteria and justifies a responsible course	**Establish and advocate:** Establishes an ethical direction for complex or uncertain situations and advocates responsible practice across diverse cultural and international	3

No.	PLOs	Shorten PLOs	1. Basic	2. Intermediate	3. Advance	4. Expert	Expected Level
	professional and ethical standards.		awareness of affected stakeholders, identification of potential impacts, and understanding of basic principles.	stakeholder interests, and consistency of ethical reasoning.	of action. Assessment considers balance among competing interests, quality of evidence, cultural sensitivity, impact awareness, and defensibility of the decision.	contexts. Assessment considers leadership, anticipation of long-term and unintended impacts, alignment with internationally recognized principles, accountability, and capacity to influence professional practice.	
5	Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.	Professional responsibility and lifelong learning	**Follow and participate:** Follows an assigned plan, completes defined tasks, and participates responsibly under guidance. Assessment considers punctuality, task completion, compliance with agreed roles, receptiveness to guidance, and basic contribution to the team.	**Collaborate and manage:** Collaborates with others and manages assigned tasks within agreed time and resource constraints. Assessment considers reliability, communication within the team, coordination, time management, and constructive response to feedback.	**Plan, manage, and reflect:** Independently plans and manages complex work, contributes effectively to team performance, and uses reflection and feedback to improve outcomes. Assessment considers autonomy, accountability, problem resolution, quality of self-assessment, adaptation, and documented improvement.	**Lead, mentor, and continuously improve:** Leads diverse teams, manages uncertainty and competing responsibilities, supports the development of others, and establishes strategies for continuous professional learning. Assessment considers leadership effectiveness, inclusive collaboration, ethical accountability, resilience, mentoring, and sustained improvement of professional practice.	3

3) Rader Chart for Expected Competency Levels by Program Learning Outcomes



2.3.5 Components Related to Projects or Research, Field Experience, Internship, or Cooperative Education (if any)

1) Requirements Related to Project or Research Work (if any)

1. Brief Description

The project- and research-based component results from the systematic integration of required course groups and their CLOs across the curriculum. Project-based learning is progressively developed through eight project courses, comprising the Design Modules and the Capstone Project sequence, which enable all students to advance from basic spatial exploration to contextual, systems-based, regenerative, and integrated design projects. Research competencies are developed through Research Methods, Individual Study, and related analytical courses, covering problem formulation, literature review, data collection, analysis, synthesis, and evidence-based interpretation. The integration of these course groups ensures that every student progressively applies design and research methods to real-world architectural and built environment issues and demonstrates the combined CLOs through comprehensive project or research outcomes.

2. Learning Outcomes

The learning outcomes are synthesized from the CLOs of the Design Modules I–VI, 01243291 Design and Environmental Research Methods, relevant Individual Study courses,

01243491 Individual Study Preparation for Capstone Project, and 01243492 Capstone Project. Upon completion of these project- or research-related courses, students will be able to:

1. Define and formulate a project or research topic relevant to architecture and the built environment, based on contextual conditions, stakeholder needs, literature, and evidence (Research Methods CLO 1; Individual Study Preparation for Capstone Project CLO 1–2).
2. Apply appropriate design, research, analytical, technical, and digital methods to investigate problems and develop design- or research-based solutions (Design Modules I–VI CLOs; Research Methods CLO 2; Individual Study CLOs 1–2; Capstone Project CLOs 1–2).
3. Integrate and synthesize knowledge and information from multiple disciplines and sources to support decision-making and the progressive development of comprehensive project outcomes (Design Modules V–VI CLOs; Individual Study Preparation for Capstone Project CLOs 2–3; Capstone Project CLOs 1–2).
4. Evaluate design or research decisions and their functional, social, cultural, environmental, ethical, and sustainability impacts (Design Modules III–VI CLOs; Individual Study CLOs 2–3; Capstone Project CLO 4).
5. Manage project development through planning, consultation, iterative improvement, self-assessment, and independent learning (Individual Study Preparation for Capstone Project CLO 2; Individual Study CLOs 4–5; Capstone Project CLO 5).
6. Present and justify project or research processes and outcomes clearly and professionally through appropriate visual, written, digital, and oral formats (Design Modules I–VI communication CLOs; Individual Study presentation CLOs; Individual Study Preparation for Capstone Project CLO 4; Capstone Project CLO 3).

3. Timeframe

According to the study plan

4. Number of Credits

According to the study plan

5. Preparation

Students are supported through structured preparation processes, including assignment of an academic advisor, guidance on topic selection, scheduled consultation sessions, and support in research or project methodology, data collection, analysis, and presentation.

Progress is monitored regularly, and students receive feedback to address academic or technical challenges encountered during the project or research process.

6. Assessment and Evaluation

Assessment and evaluation are based on clearly defined criteria aligned with the learning outcomes. Evaluation methods include assessment of project or research proposals, progress reports, final outputs, presentations, and advisor evaluations. Both process and outcomes are considered to ensure academic rigor, relevance, and professional quality.

2) Component related from Field Experience, Internship, or Cooperative Education (if any)

1. Learning Outcomes of Field Experience, Internship, or Cooperative Education

None

2. Timeframe

None

3. Scheduling and Timetable

None

4. Assessment and Evaluation

None

2.3.6 Table Showing the Alignment of Program Learning Outcomes (PLOs) with Strategic Plans, Institutional Philosophy, and Stakeholder Input

Program Learning Outcomes (PLOs)	National Strategic Plan / Economic Development Plan	Philosophy / Vision / KU Mission	Stakeholder Groups					
			Internal		External			
			Faculty members	Current students	Employers	Experts	Alumni	High School Students
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	✓	✓		✓	✓	✓		
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.	✓	✓	✓		✓	✓		✓

Program Learning Outcomes (PLOs)	National Strategic Plan / Economic Development Plan	Philosophy / Vision / KU Mission	Stakeholder Groups					
			Internal		External			
			Faculty members	Current students	Employers	Experts	Alumni	High School Students
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.		✓	✓		✓		✓	✓
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.	✓	✓	✓		✓	✓		
PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.		✓	✓	✓	✓		✓	✓

2.3.7 Table Showing the Program Learning Outcomes and Learning Outcomes according to the Qualification Standards

Program Learning Outcomes (PLO)	1. Knowledge	2. Skills	3. Ethics	4. Character
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	✓			
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.		✓		
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.		✓		
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social			✓	

Program Learning Outcomes (PLO)	1. Knowledge	2. Skills	3. Ethics	4. Character
responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.				
PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.				✓

2.3.8 Table Showing the Program Learning Outcomes and General Education Learning Outcomes of Kasetsart University, B.E. 2567 (2024)

Program Learning Outcomes (PLO)	General Education Learning Outcomes of Kasetsart University, B.E. 2567 (2024)												
	GELO 1	GELO 2	GELO 3	GELO 4			GELO 5		GELO 6	GELO 7	GELO 8	GELO 9	GELO 10
				GELO 4.1	GELO 4.2	GELO 4.3	GELO 5.1	GELO 5.2					
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	✓	✓											
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.			✓		✓								
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.				✓		✓							

Program Learning Outcomes (PLO)	General Education Learning Outcomes of Kasetsart University, B.E. 2567 (2024)												
	GELO 1	GELO 2	GELO 3	GELO 4			GELO 5		GELO 6	GELO 7	GELO 8	GELO 9	GELO 10
				GELO 4.1	GELO 4.2	GELO 4.3	GELO 5.1	GELO 5.2					
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.									✓		✓		
PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.							✓	✓		✓		✓	

GELO 1 Provide examples from various disciplines and integrate them into learning and university life. (Knowledge - K)

GELO 2 Propose solutions and make decisions using appropriate thinking skills for each situation. (Knowledge - K)

GELO 3 Analyze current situations and plan work effectively with entrepreneurial competencies. (Knowledge - K)

GELO 4 Apply language, communication, and information technology skills in learning and working collaboratively with others.

Sub GELO 4.1 Communicate using language skills in both work and daily life. (Skill - S)

Sub GELO 4.2 Use digital and information technology appropriately and correctly for communication, work, or collaboration. (Skill - S)

Sub GELO 4.3 Communicate or present work using various methods or formats. (Skill - S)

GELO 5 Manage oneself to live and learn effectively.

Sub GELO 5.1 Take care of and manage oneself physically and mentally. (Skill - S)

Sub GELO 5.2 Demonstrate self-worth and appreciation for others, set goals, and maintain mental well-being in daily life. (Characteristic - C)

GELO 6 Demonstrate fundamental morality and ethics in coexisting with others. (Ethics - E)

GELO 7 Self-assess, set goals, plan learning, and evaluate learning progress for self-development. (Characteristic - C)

GELO 8 Apply concepts of good citizenship and sustainable development in daily life or university activities. (Characteristic - C)

GELO 9 Collaborate with others as both leader and follower, recognizing one's roles and responsibilities. (Characteristic - C)

GELO 10 Show pride in being Thai, uphold good cultural values, local wisdom, and national history. (Characteristic - C)

2.3.9 Table Showing Core Competencies of General Education, Kasetsart University, B.E. 2567 (2024)

Program Learning Outcomes (PLO)	Core Competencies of General Education, Kasetsart University, B.E. 2567 (2024)							
	Communication and Information Literacy	Leadership	Entrepreneurship	Critical Thinking Skills	Multiculturalism	Self-Management	Lifelong Learning	Citizenship
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.				✓				
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.	✓		✓	✓				
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.	✓							
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.					✓			✓
PLO 5: Demonstrate responsibility, teamwork, self-		✓				✓	✓	

Program Learning Outcomes (PLO)	Core Competencies of General Education, Kasetsart University, B.E. 2567 (2024)							
	Communication and Information Literacy	Leadership	Entrepreneurship	Critical Thinking Skills	Multiculturalism	Self-Management	Lifelong Learning	Citizenship
management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.								

2.3.10 Curriculum Design Aligned with Program Learning Outcomes

The Bachelor of Science Program in Architecture and Built Environment has been designed using the Backward Curriculum Design approach, starting from the determination of Program Learning Outcomes (PLOs) that reflect national development directions, workforce needs, stakeholder expectations, and the mission of Kasetsart University. The curriculum design process began by defining the competencies expected of graduates upon completion of the program, covering knowledge, skills, ethics, and personal attributes, and then aligning the curriculum structure, courses, learning activities, and assessment methods with these outcomes.

The PLOs provide the main framework for curriculum development. Each PLO is translated into Year Learning Outcomes (YLOs) that define the expected level of student achievement in each year. The YLOs are subsequently mapped to Course Learning Outcomes (CLOs), course content, learning activities, and assessment methods. This alignment establishes a clear progression from PLOs to YLOs and CLOs and ensures that student achievement can be developed and assessed systematically throughout the program.

In response to rapid global changes in environmental conditions, urbanization, digital technology, and socio-cultural dynamics, the program aims to produce graduates capable of analytical thinking, interdisciplinary problem-solving, ethical decision-making, and lifelong learning in architecture and the built environment. The curriculum therefore emphasizes integrative, interdisciplinary, and practice-oriented learning that combines architectural design, built environment studies, environmental analysis, digital tools, cultural and international understanding, sustainability, communication, and professional development.

All five PLOs are developed throughout the curriculum rather than being addressed separately. However, their levels of emphasis and complexity increase progressively according to the curriculum mapping. Foundational courses initially introduce the knowledge, skills, and attributes required by the PLOs. Intermediate courses provide opportunities for application and

integration, while advanced courses require students to evaluate complex issues, justify decisions, and demonstrate independent performance. The Design Modules, research courses, Individual Study courses, Individual Study Preparation for Capstone Project, and Capstone Project serve as major integration points where students demonstrate multiple PLOs through comprehensive project or research outcomes.

In the early years of study (Years 1–2), the curriculum focuses on establishing foundational knowledge and skills. Students develop basic competencies in analyzing relationships among people, place, and environment (PLO 1); using fundamental design, analytical, and digital tools (PLO 2); and communicating ideas through visual, written, and oral methods (PLO 3). Introductory courses also develop awareness of cultural diversity, ethics, environmental responsibility, teamwork, self-management, and reflective learning (PLOs 4 and 5). Learning activities at this stage emphasize structured learning, guided practice, introductory design exercises, and foundational studio work.

In the intermediate stage (Year 3), students apply and integrate their competencies through contextual, community-based, technical, environmental, and systems-oriented learning. Courses strengthen the analysis of complex-built environment conditions (PLO 1), the selection and application of appropriate design and digital tools (PLO 2), and the structured communication of analytical and design outcomes (PLO 3). Community engagement, international and cultural perspectives, teamwork, and project-based learning further develop ethical and contextual evaluation (PLO 4) and responsibility, collaboration, and self-management (PLO 5).

In the later stage (Year 4), students engage in advanced studios, seminars, Individual Study, and project- or research-based courses. They are expected to integrate interdisciplinary knowledge, evaluate alternative approaches, and justify decisions in response to complex functional, environmental, social, cultural, and international conditions (PLOs 1, 2, and 4). They also communicate comprehensive outcomes professionally (PLO 3) and manage their work through planning, collaboration, reflection, and independent learning (PLO 5). Individual Study Preparation for Capstone Project and Capstone Project provide the principal culminating components through which students demonstrate integrated achievement of all five PLOs.

Throughout the curriculum, teaching and learning strategies are aligned with the PLOs, YLOs, and CLOs through studio-based, project-based, problem-based, seminar-based, research-based, and experiential learning. Assessment methods evaluate both learning processes and outcomes through design projects, analytical work, reports, presentations, portfolios, reflective learning, and professional conduct. Evidence of CLO achievement is progressively consolidated at the YLO level and used to evaluate overall achievement of the PLOs.

Continuous curriculum review is undertaken to ensure that course content, curriculum mapping, teaching strategies, and assessment methods remain current and aligned with stakeholder

needs and qualification standards. This systematic PLO–YLO–CLO alignment ensures that graduates are academically competent, professionally prepared, ethically responsible, and capable of responding to the changing demands of architecture and the built environment at national and international levels.

3. Credit Requirements, Curriculum Structure, Courses, Course Descriptions, and Study Plan

3.1 Total Credit Requirements for Completion of the Program:

Not less than 120 credits

3.2 Curriculum Structure

1) General Education Courses: Not less than 24 credits

Students must complete all three parts of the general education courses:

1. General Education Courses that Develop Kasetsart University Student Attributes 8 credits
2. General Education Courses that Develop Competencies in Three Areas: Not less than 6 credits
   - Communication and Information Skills
   - Leadership
   - Entrepreneurship
3. General Education Courses that Develop Competencies as Specified in the Program Learning Outcomes (PLOs): Not less than 10 credits
   - Critical Thinking
   - Multiculturalism
   - Self-Management
   - Lifelong Learning
   - Citizenship

2) Major Requirement Courses: Not less than 90 credits
   - Required Major Courses: 79 credits
   - Elective Major Courses: Not less than 11 credits

3) Free Electives: Not less than 6 credits

3.3 Courses

1) General Education Courses Not less than 24 credits

Students must complete all three components of the General Education category as follows:

1. General Education Courses that Develop Kasetsart University Student Attributes 8 credits

01999111	Kasetsart Creating Knowledge of the Land	2(2-0-4)
	Foreign Language Courses	6(- -)
	(for the Foreign Language courses under General Education, multiple languages may be taken, totaling 6 credits)	

2. General Education Courses that Develop Competencies in Three Areas Not less than 6 credits

- Communication and Information Skills
- Leadership
- Entrepreneurship

3. General Education Courses that Develop Competencies as Specified in the Program Learning Outcomes (PLOs) Not less than 10 credits

- Critical Thinking
- Multiculturalism
- Self-Management
- Lifelong Learning
- Citizenship

2) Major Requirement Courses Not less than 90 credits

- Required Major Courses 79 credits

01204111	Computer and Programming	3(2-3-6)
01204162	Applied AI for Engineering	3(3-0-6)
01240385	Cultural Heritage Theory	3(3-0-6)
01243111*	Foundations of Architecture and Environment	3(3-0-6)
01243112*	Creative and Design Thinking Theory	3(3-0-6)
01243113*	Culture and History of Built Environment	3(3-0-6)
01243121*	Design Module I : Form and Space	3(1-4-4)
01243122*	Design Module II : Narrative, People and Place	3(1-4-4)
01243141*	Nature of Materials and Structure	3(3-0-6)
01243151*	Visual Communication and Technical Drawing	2 (1-2-3)
01243152*	Digital Tools I : Computer-Aided Design and Visualization	3(3-0-6)
01243221*	Design Module III : Community and Context	3(1-4-4)
01243222*	Design Module IV : Systems and Networks	3(1-4-4)
01243232*	Human-Centered Design for Well-Being	3(3-0-6)
01243241*	Building Technology and Sustainable Materials	3(3-0-6)
01243242*	Healthy Building Performance and Design	3(3-0-6)
01243251*	Architecture and Built Environment Documentation	3(1-4-6)
01243252*	Digital Tools II : BIM and Parametric Design	3(3-0-6)
01243291*	Design and Environmental Research Methods	2(2-0-4)
01243321*	Design Module V : Contextual and Regenerative Design Strategies	3(1-4-4)
01243322*	Design Module VI : Integration and Impact	3(1-4-4)
01243331*	Nature by Design	3(3-0-6)
01243351*	Spatial Analysis and Mapping Methods	3(3-0-6)
01243352*	Impact Assessment and Policy	3(3-0-6)
01243461*	Management and Entrepreneurship in Built Environment	3(3-0-6)

* New course

01243492*	Capstone Project	5(0-10-6)
01243493*	International Seminar on Regenerative Futures and Global Perspectives	1(1-0-4)
	- Elective Major Courses: Not less than 11 credits	
01204261	Introduction to Linear Algebra for Applied AI	1(1-0-2)
01204262	Introduction to Optimization for Applied AI	1(1-0-2)
01204263	Introduction to Statistics for Applied AI	1(1-0-2)
01204264	Introduction to Data Structures and Algorithms for Applied AI	1(1-0-2)
01204265	Introduction to Application Software Development for Applied AI	1(1-0-2)
01204266	Introduction to Data Analysis for Applied AI	1(1-0-2)
01243332*	Design for One Health and Well-Being Studio	3(1-4-4)
01243333*	Future Society Innovation Studio	3(1-4-4)
01243334*	Transdisciplinary Design	3(1-4-4)
01243341*	Energy and Environmental Modeling for High-Performance Design	3(3-0-6)
01243342*	Low Carbon Building	3(3-0-6)
01243343*	Sustainable Building, Construction and Operation	3(3-0-6)
01243371*	Dialogue on global and contemporary challenges in Heritage Studies	3(3-0-6)
01243372*	Adaptive Reuse of Built Heritage	3(3-0-6)
01243373*	Riverine Settlements and Water Heritage Landscapes	3(1-4-4)
01243374*	Heritage Ecosystems : People, Nature and Culture Linkage	3(3-0-6)
01243391*	Cross-cultural Workshop in Architecture and Built Environment	3(3-0-6)
01243392*	Individual study in Heritage Ecosystem	3(1-4-4)
01243393*	Individual study in Building Tech	3(1-4-4)
01243394*	Individual study in Design for Well-Being	3(1-4-4)
01243396*	Body of Knowledge from Overseas Studies	1-15
01243398*	Special Problem	3(3-0-6)
01243491*	Individual Study Preparation for Capstone Project	2 (0-4-4)
(3) Free Elective Courses	**Not less than**	**6 credits**

* New course

3.4 Relationship with Other Curricula/Programs Offered by Other Faculties/Departments within the Institution

3.4.1 Course categories/course groups/individual courses in this program offered by other faculties/departments/programs

- General Education Courses
- Required Major Courses

01204111 Computer and Programming

01204162 Applied AI for Engineering

01240385 Cultural Heritage Theory

- Elective Major Courses

01204261 Introduction to Linear Algebra for Applied AI

01204262 Introduction to Optimization for Applied AI

01204263 Introduction to Statistics for Applied AI

01204264 Introduction to Data Structures and Algorithms for Applied AI

01204265 Introduction to Application Software Development for Applied AI

01204266 Introduction to Data Analysis for Applied AI

3.4.2 Course categories/course groups/individual courses in this Curriculum offered to other faculties/departments/programs

none

3.5 Courses Descriptions

3.5.1 Courses with Curriculum Course Codes

- Courses within the Curriculum

01243111* Foundations of Architecture and Environment 3(3-0-6)

Fundamental concepts of architecture and the built environment. Study of architectural thinking, environmental context, human–environment relationships, and basic principles shaping architectural space. Overview of architectural elements, environmental factors, and the role of architecture in cultural, social, and ecological contexts as a foundation for design.

01243112* Creative and Design Thinking Theory 3(3-0-6)

Theories and principles of creativity and design thinking. Creative processes, problem framing, ideation techniques, and design methodologies. Human-centered design, empathy, systems thinking, and iterative thinking. Application of creative and design thinking theories to architectural and built environment contexts through analysis of case studies.

01243113* Culture and History of Built Environment 3(3-0-6)

Prerequisites : 01243111

Cultural and historical development. Built environment from ancient to contemporary periods. Relationships between society, culture, belief systems, technology. Formation of architecture,

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* New course

settlements, and landscapes. Comparative study of global and regional contexts. Cultural values and historical conditions shape the built environment.

01243121* Design Module I : Form and Space 3(1-4-4)

Fundamental design principles of form and space. Proportion, scale, composition, spatial organization, and relationships between solid and void. Relationships of space to human scale, movement, perception, and architectural experience. Exploration of form and spatial concepts through drawings, models, and basic design exercises.

01243122* Design Module II : Narrative, People and Place 3(1-4-4)

Prerequisites : 01243121

Design exploration focusing on relationships among narratives, people, and places in the built environment. Stories, memories, social practices, everyday life, and cultural diversity influencing spatial meanings. Site observation, contextual reading, user understanding, and stakeholder needs. Translation of narratives and lived experiences into spatial concepts through design exercises.

01243141* Nature of Materials and Structure 3(3-0-6)

Fundamental properties of construction materials and basic structural behavior. Characteristics of natural and synthetic materials. Material performance under loads, basic structural systems, load transfer, and stability. Relationships among material selection, structural principles, and architectural design within built environment contexts.

01243151* Visual Communication and Technical Drawing 2 (1-2-3)

Principles of visual communication for architecture and the built environment. Practice in technical drawing, architectural drafting conventions, scale, proportion, line types, and graphical standards. Development of skills in hand drawing and basic digital drawing to communicate design ideas, spatial information, and technical details accurately and clearly.

01243152* Digital Tools I : Computer-Aided Design and Visualization 3(3-0-6)

Prerequisites : 01243151

Fundamental digital tools for architectural and built environment design. Computer-aided drafting, three-dimensional modeling, and visualization. Drawing accuracy, digital information management, and digital workflows. Communication of design ideas through digital media and visual presentations.

01243221* Design Module III : Community and Context 3(1-4-4)

Prerequisites : 01243122

Architectural and built environment design studio focusing on community and context. Analysis of social, cultural, environmental, economic, and spatial contexts. Community-based design approaches, site investigation, mapping, and ethical stakeholder engagement with sensitivity to cultural diversity. Interpretation of local identity and knowledge. Development of design concepts and spatial proposals responsive to community needs.

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* New course

01243222* Design Module IV : Systems and Networks 3(1-4-4)

Prerequisites : 01243221

Design studio focusing on systems and networks in architecture and built environment. Analysis of spatial, social, infrastructural, ecological, and technological systems. Relationship between buildings, urban networks, mobility, utilities, information flows, and environmental systems. Integration of multi-scale systems into architectural and built environment design through analytical mapping and design experimentation.

01243232* Human-Centered Design for Well-Being 3(3-0-6)

Principles of human-centered design for physical, psychological, and social well-being. Relationships among users, human behavior, space, and environmental conditions. Environmental psychology, user research, universal design, accessibility, safety, and comfort. Health-supportive environments, products, and services at building, community, urban, and public-space scales. Design for older adults, therapeutic environments, healing gardens, and urban agriculture. Evaluation of case studies and design approaches according to well-being and inclusion criteria.

01243241* Building Technology and Sustainable Materials 3(3-0-6)

Prerequisites : 01243141

Building technology, building components, construction systems, and sustainable materials. Material properties and applications, construction methods, and technical and environmental performance. Material selection criteria concerning durability, climate suitability, maintenance, adaptability, resource efficiency, embodied carbon, and life-cycle impacts. Technical documentation for building design and construction.

01243242* Healthy Building Performance and Design 3(3-0-6)

Prerequisites : 01243241

Principles of healthy buildings focusing on performance-based assessment of indoor environmental quality. Relationship between environment and occupant health. Design and analysis of air quality, thermal comfort, lighting, and acoustics based on international standards, using simulation and measurement to support design.

01243251* Architecture and Built Environment Documentation 3(1-4-6)

Documenting architecture and Built Environment constructed in timber, stone, brick, and concrete. Reading and interpretation of historical architectural drawings and documents. Comparison of historical evidence with existing physical conditions. Organization and communication of information through manual and digital representational media.

01243252* Digital Tools II : BIM and Parametric Design 3(3-0-6)

Prerequisites : 01243152

Building Information Modeling (BIM) and parametric design for architecture and the built environment. Principles of data-driven design, digital modeling, information management, and interdisciplinary coordination. Application of BIM in design development, documentation, collaboration,

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* New course

and building performance simulation. Rule-based design and parametric tools for design option generation, exploration of system relationships, and design refinement at building and built environment scales.

01243291* Design and Environmental Research Methods 2(2-0-4)

Concepts and research methods in design and built environment studies. Formulation of research problems and questions. Literature review, qualitative and quantitative methods, data collection methods, and basic data analysis. Environmental and spatial analysis, research ethics, and application of research findings in design and planning processes.

01243321* Design Module V : Contextual and Regenerative Design Strategies 3(1-4-4)

Prerequisites : 01243222

Contextual design studio at building, community, urban, and landscape scales. Concepts and principles of regenerative design. Relationships among ecological, cultural, social, and economic systems. Contextual research, systems analysis, stakeholder engagement, climate-responsive design, and ecological restoration concepts. Development of spatial strategies promoting regeneration, resilience, cultural continuity, and long-term adaptability.

01243322* Design Module VI : Integration and Impact 3(1-4-4)

Prerequisites : 01243321

Advanced design studio integrating knowledge of design, well-being, heritage ecosystems, building performance, digital technology, environmental analysis, and research. Analysis of complex-built environment problems and contexts. Development of comprehensive, evidence-based design projects. Assessment of social, cultural, environmental, and economic impacts. Management of the design process and presentation of project outcomes according to professional standards.

01243331* Nature by Design 3(3-0-6)

Concepts and scope of landscape architecture. Landscape thinking and relationships between landscape, architecture, and site context. Landscape design process including site analysis, concept development, spatial composition, planting strategies, and material selection. Contemporary issues including climate-responsive design, sustainable and resilient landscapes, urban wellbeing, biodiversity, and cultural landscapes. Case studies across scales from gardens to urban parks and regional landscape systems. Collaboration between landscape architects and other built environment professionals.

01243332* Design for One Health and Well-Being Studio 3(1-4-4)

Integrated design studio. One Health concept linking human, animal, and environmental health. Development of design projects promoting well-being at building, community, and landscape scales. Studio-based analysis and design practice.

01243333* Future Society Innovation Studio 3(1-4-4)

Design studio. Innovation for future societies. Exploration of emerging technologies, living patterns, and urban systems. Development of concepts and prototypes through studio-based design processes.

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* New course

01243334* Transdisciplinary Design 3(1-4-4)

Design studio. Concepts and processes of transdisciplinary design integrating knowledge from art, science, technology, and society. Analysis of complex problems, collaborative and cross-disciplinary working methods, development of concepts and prototypes, and communication of solutions in real-world contexts.

01243341* Energy and Environmental Modeling for High-Performance Design 3(3-0-6)

Principles of energy and environmental modeling. Analysis of building energy, thermal performance, lighting, and ventilation. Utilization of digital simulation tools to support high-performance building design. Application of analytical results in design decision-making.

01243342* Low Carbon Building 3(3-0-6)

Concepts and principles of low-carbon buildings. Life-cycle carbon assessment of buildings. Materials, technologies, and building systems for reducing greenhouse gas emissions. Application in sustainable design and construction.

01243343* Sustainable Building, Construction and Operation 3(3-0-6)

Principles of sustainability in building design and construction. Construction processes, resource management, and building operation. Maintenance and energy management for long-term sustainability.

01243351* Spatial Analysis and Mapping Methods 3(3-0-6)

Prerequisites : 01243251

Principles and methods of spatial analysis and mapping. Collection and management of spatial data. Interpretation of the physical, environmental, social, cultural, and historical characteristics of places. Field surveys, geographic information systems, thematic mapping, overlay analysis, participatory mapping, and interpretation of spatial patterns and change. Use of spatial data, maps, and visual media to support built environment design, planning, and decision-making.

01243352* Impact Assessment and Policy 3(3-0-6)

Principles of environmental, heritage, social, and economic impact assessment. Analysis of public policy and planning processes. Application to project development and policy-related decision-making.

01243371* Dialogue on global and contemporary challenges in Heritage Studies 3(3-0-6)

Examination of global and contemporary challenges in heritage studies. Climate change, urban development, conflict, and community issues. Critical discussions and case studies in heritage contexts.

01243372* Adaptive Reuse of Built Heritage 3(3-0-6)

Concepts and principles of adaptive reuse of built heritage. Integration of conservation and new uses. Analysis of heritage values, regulations, and community context. Application in design projects.

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* New course

01243373* Riverine Settlements and Water Heritage Landscapes 3(1-4-4)

Concepts of riverine and water-based heritage landscapes. Ecological, cultural, and living systems along waterways. Relationships between communities, cities, and rivers. Heritage-based analysis and design in water-related contexts.

01243374* Heritage Ecosystems : People, Nature and Culture Linkage 3(3-0-6)

Concepts of heritage ecosystems and the linkages between people, nature, and culture in heritage landscapes. Analysis of cultural landscapes, ecological systems, and community practices. Relationships between heritage, environment, and society. International case studies and applications of ecosystem-based approaches in heritage conservation, planning, and design.

01243391* Cross-cultural Workshop in Architecture and Built Environment 3(3-0-6)

Learning through practice-based workshops with international institutions or participants in architecture and built environments. Cross-cultural exchange of knowledge, ideas, and experiences. Design processes, interdisciplinary teamwork, field-based investigation, analysis of social, cultural, and environmental contexts. Development of design concepts and presentation in international settings.

01243392* Individual study in Heritage Ecosystem 3(1-4-4)

Independent study on heritage ecosystems. Analysis of cultural heritage, heritage landscapes, and relationships between heritage, communities, and the environment under academic supervision.

01243393* Individual study in Building Tech 3(1-4-4)

Individual study in building technology. In-depth investigation of building systems, energy, materials, and performance under faculty supervision to prepare for advanced research or projects.

01243394* Individual study in Design for Well-Being 3(1-4-4)

Individual study in design of health and well-being of users and the environment, integrating the concepts of well-being, One Health, and human-centered design.

01243395* Study Abroad 1-6

Learning and self-development from courses taken in oversea university. Credit equivalence according to Kasetsart University regulation.

01243396* Body of Knowledge from Overseas Studies 1-15

Knowledge in architecture and environment built at the bachelor's degree level taken in overseas universities or institutes. Credit equivalence according to Kasetsart University regulation.

01243398* Special Problem 3(3-0-6)

Study and research in architecture and built environment at the bachelor's degree level and compile into a written report.

01243461* Management and Entrepreneurship in Built Environment 3(3-0-6)

Principles of management and entrepreneurship in built environment sector. Business development, project management, and innovation in professional practice.

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* New course

01243491* Individual Study Preparation for Capstone Project 2(0-4-4)

Preparation for capstone work. Development of research topics, methods, and conceptual frameworks in consultation with an advisor.

01243492* Capstone Project 5(0-10-6)

Prerequisites : 01243322

Capstone project integrating knowledge and skills acquired throughout the program. Development of a design or research project demonstrating student competency under faculty supervision.

01243493* International Seminar on Regenerative Futures and Global Perspectives 1(1-0-4)

International academic seminar focusing on regenerative futures, sustainability, and global perspectives. Knowledge exchange with international scholars and professionals.

- Service courses/courses in the General Education category

None

3.5.2 Courses with course codes from other curricular

01204111 Computer and Programming 3(2-3-6)

Basic structure of modern computer systems; data representation in computers; algorithmic problem solving; program design and development methodology; introductory programming using a high level programming language; programming practice in computer laboratory.

01204162 Applied AI for Engineering 3(3-0-6)

Fundamentals of AI and AI techniques. Basics of machine learning and neural networks. Current AI technology. Data in AI cycles. Applications of AI technology for solving engineering problems. Social impact of AI and ethical issues.

01204261 Introduction to Linear Algebra for Applied AI 1(1-0-2)

Vectors and vector spaces. Matrices and matrix representations of linear systems. Linear transformations. Solution of linear systems. Eigensystems. Singular value decomposition.

01204262 Introduction to Optimization for Applied AI 1(1-0-2)

Derivatives and optimization. Partial derivatives. Gradient descent. Applications to AI.

01204263 Introduction to Statistics for Applied AI 1(1-0-2)

Random variables and probability. Univariate data. Descriptive statistics. Probability and empirical distributions. Sample mean distribution. Confidence intervals. Hypothesis testing. Multivariate data and correlation. Experimental design and evaluation.

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* New course

01204264 Introduction to Data Structures and Algorithms for Applied AI 1(1-0-2)

Basic data structures. Algorithms. Analysis of algorithm complexity. Sorting and searching. Algorithmic problem solving.

01204265 Introduction to Application Software Development for Applied AI 1(1-0-2)

Introductory software development process. Basic concepts of database systems. Data manipulation and searching.

01204266 Introduction to Data Analysis for Applied AI 1(1-0-2)

Dataset acquisition and manipulation. Exploratory data analysis. Analysis of multivariate data. Data visualization.

01240385 Cultural Heritage Theory 3(3-0-6)

Conservation and protection in contemporary society. History, philosophy, international charter, and public policies. Architectural and urban heritage evaluation and conservation. Modern architecture conservation and adaptive reuse. Historic districts, historic urban landscape. Traditional villages, vernacular architecture, cultural landscape. Cultural mapping and interpretation. Case studies and discussion.

3.6 Table of expected Course Learning Outcomes (CLOs) by academic year mapped to Program Learning Outcomes (PLOs)

Program Learning Outcomes (PLOs)	Learning Outcomes by Year of Study			
	Year 1	Year 2	Year 3	Year 4
	Course Code	Course Code	Course Code	Course Code
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	Required Major Courses 01243111, 01243112, 01243113, 01243122, 01243141 Elective Major Courses —	Required Major Courses 01243221, 01243222, 01243232, 01243241, 01243242, 01243251, 01243291 Elective Major Courses	Required Major Courses 01240385, 01243321, 01243322, 01243331, 01243351, 01243352 Elective Major Courses 01243332, 01243333, 01243334, 01243341, 01243342, 01243343, 01243371, 01243372, 01243373, 01243374, 01243391, 01243392, 01243393, 01243394, 01243396	Required Major Courses 01243461, 01243492, 01243493 Elective Major Courses 01243491
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.	Required Major Courses 01204111, 01243111, 01243112, 01243121, 01243122, 01243141,	Required Major Courses 01204162, 01243221, 01243222, 01243232, 01243241, 01243242, 01243251,	Required Major Courses 01240385, 01243321, 01243322, 01243331, 01243351, 01243352	Required Major Courses 01243461, 01243492 Elective Major Courses 01243491

Program Learning Outcomes (PLOs)	Learning Outcomes by Year of Study			
	Year 1	Year 2	Year 3	Year 4
	Course Code	Course Code	Course Code	Course Code
	01243151, 01243152 Elective Major Courses —	01243252, 01243291 Elective Major Courses	Elective Major Courses 01243332, 01243333, 01243334, 01243341, 01243342, 01243343, 01243372, 01243373, 01243374, 01243391, 01243392, 01243393, 01243394, 01243398	
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.	Required Major Courses 01243121, 01243122, 01243151, 01243152 Elective Major Courses —	Required Major Courses 01243221, 01243222, 01243241, 01243242, 01243251, 01243252, 01243291 Elective Major Courses	Required Major Courses 01243321, 01243322, 01243331, 01243351, 01243352 Elective Major Courses 01243332, 01243333, 01243334, 01243341, 01243342, 01243343, 01243371, 01243372, 01243373, 01243374, 01243391,	Required Major Courses 01243461, 01243492, 01243493 Elective Major Courses 01243491

Program Learning Outcomes (PLOs)	Learning Outcomes by Year of Study			
	Year 1	Year 2	Year 3	Year 4
	Course Code	Course Code	Course Code	Course Code
			01243392, 01243393, 01243394, 01243396	
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.	Required Major Courses 01243113, 01243122 Elective Major Courses —	Required Major Courses 01243221, 01243232, 01243242 Elective Major Courses —	Required Major Courses 01243321, 01243322, 01243352 Elective Major Courses 01243332, 01243333, 01243334, 01243342, 01243343, 01243371, 01243372, 01243373, 01243374, 01243391, 01243392, 01243394	Required Major Courses 01243461, 01243492, 01243493 Elective Major Courses 01243491
PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.	Required Major Courses — Elective Major Courses —	Required Major Courses 01243252 Elective Major Courses —	Required Major Courses 01243322 Elective Major Courses 01243332, 01243333, 01243334, 01243372, 01243373, 01243374, 01243391, 01243392,	Required Major Courses 01243461, 01243492, 01243493 Elective Major Courses 01243491

Program Learning Outcomes (PLOs)	Learning Outcomes by Year of Study			
	Year 1	Year 2	Year 3	Year 4
	Course Code	Course Code	Course Code	Course Code
			01243393, 01243394, 01243396	

3.7 Meaning of Course Code Numbers

The course code in the Bachelor of Science Program in Architecture and Built Environment consists of eight digits, with the following meanings:

Digits 1–2 (01)	refers to: Bangkhen Campus
Digits 3–5 (243)	refers to: Architecture and Built Environment Major
Digit 6	refers to: Year of study
Digit 7	has the following meanings:
0	= Courses for students outside the major
1	= Basic and theoretical courses in Architecture and Built Environment
2	= Design practice courses
3	= Well-Being and sustainability-related courses
4	= Science, building technology and innovation courses
5	= Arts, skills, and tool-based courses
6	= Professional practice and design business courses
7	= Heritage specialized courses
9	= Capstone project, research, special topics, seminars, and special problems
Digit 8	refers to: Course sequence within each group

3.8 Study Plan

Year 1, Semester 1		Credits (Lecture-Practice-Self-study Hours)
01243111	Foundations of Architecture and Environment	3(3-0-6)
01243112	Creative and Design Thinking Theory	3(3-0-6)
01243121	Design Module I : Form and Space	3(1-4-4)
01243151	Visual Communication and Technical Drawing	2(1-2-3)
01999111	Kasetsart Creating Knowledge of the Land	2(2-0-4)
	Foreign Language	3(- -)
	General Education Courses that Develop Competencies as specified in the Program Learning Outcomes (PLOs)	2(- -)
Total		18(- -)

Year 1, Semester 2		Credits (Lecture-Practice-Self-study Hours)
01243141	Nature of Materials and Structure	3(3-0-6)
01204111	Computer and Programming	3(2-3-6)
01243113	Culture and History of Built Environment	3(3-0-6)
01243122	Design Module II : Narrative, People and Place	3(1-4-4)
01243152	Digital Tools I : Computer-Aided Design and Visualization	3(3-0-6)
	General Education Courses that Develop Competencies as specified in the Program Learning Outcomes (PLOs)	3(- -)
Total		18(- -)

Year 2, Semester 1		Credits (Lecture-Practice-Self-study Hours)
01243251	Architecture and Built Environment Documentation	3(1-4-6)
01204162	Applied AI for Engineering	3(3-0-6)
01243291	Design and Environmental Research Methods	2(2-0-4)
01243221	Design Module III : Community and Context	3(1-4-4)
01243241	Building Technology and Sustainable Materials	3(3-0-6)
	Foreign Language	3(- -)
	General Education Courses that Develop Competencies as specified in the Program Learning Outcomes (PLOs)	2(- -)
Total		19(- -)

Year 2, Semester 2		Credits (Lecture-Practice-Self-study Hours)
01243222	Design Module IV : Systems and Networks	3(1-4-4)
01243232	Human-Centered Design for Well-Being	3(3-0-6)
01243242	Healthy Building Performance and Design	3(3-0-6)
01243252	Digital Tools II : BIM and Parametric Design	3(3-0-6)
	General Education Courses that Develop Competencies as specified in the Program Learning Outcomes (PLOs)	3(- -)
Total		15(- -)

Year 3, Semester 1		Credits (Lecture-Practice-Self-study Hours)
01243331	Nature by Design	3(3-0-6)
01243351	Spatial Analysis and Mapping Methods	3(3-0-6)
01243321	Design Module V : Contextual and Regenerative Design Strategies	3(1-4-4)
	Elective Major Courses	3(- -)
	General Education Courses that develop competencies in three areas	3(- -)
Total		15(- -)

Year 3, Semester 2		Credits (Lecture-Practice-Self-study Hours)
01243352	Impact Assessment and Policy	3(3-0-6)
01240385	Cultural Heritage Theory	3(3-0-6)
01243322	Design Module VI : Integration and Impact	3(1-4-4)
	Elective Major Courses	3(- -)
	Free Elective	3(- -)
	General Education Courses that develop competencies in three areas	3(- -)
Total		18(- -)

Year 4, Semester 1		Credits (Lecture-Practice-Self-study Hours)
01243461	Management and Entrepreneurship in Built Environment	3(3-0-6)
	Elective Major Courses	5(- -)
	Free Elective	3(- -)
Total		11(- -)

Year 4, Semester 2		Credits (Lecture-Practice-Self-study Hours)
01243492	Capstone Project	5(0-10-6)
01243493	International Seminar on Regenerative Futures and Global Perspectives	1(1-0-4)
Total		6(1-10-10)

4. Learning Process Management

The Bachelor of Science Program in Architecture and Built Environment is designed in alignment with Kasetsart University's educational philosophy, which emphasizes learning through real-life experience, knowledge integration, and lifelong learning. The learning process reflects the university's mission and vision of developing graduates with academic excellence, ethical awareness, and the ability to contribute to sustainable national and global development, as well as the faculty's vision of producing graduates who can critically engage with real-world spatial, environmental, and social challenges.

The curriculum adopts an outcome-based education framework and a backward curriculum design approach. Program Learning Outcomes (PLOs) are first defined in response to national strategies, professional expectations, and stakeholder needs. These PLOs are then translated into Yearly Learning Outcomes (YLOs), which are further operationalized into Course Learning Outcomes (CLOs). This hierarchical alignment ensures coherence and continuity in student learning progression from Year 1 to Year 4.

Teaching and learning activities emphasize active and experiential learning. These include studio-based learning, project-based learning, problem-based learning, field studies, site investigations, seminars, and community or practice-oriented projects. Such activities enable students to connect theoretical knowledge with practical application, encouraging integrative thinking across architecture, built environment studies, environmental analysis, digital technology, and sustainability. Learning activities are designed to gradually increase in complexity, supporting students' development from foundational understanding to advanced application and synthesis.

Assessment and evaluation are aligned with the intended learning outcomes at each level. Authentic assessment methods are employed, such as design projects, portfolios, presentations, reports, reflective journals, and group work, to evaluate students' knowledge, skills, ethics, and personal attributes. Both formative and summative assessments are used to monitor student progress, provide feedback, and support continuous improvement in learning. Learning outcome achievement is reviewed at the course, yearly, and program levels to ensure that students meet the expected standards.

The learning process management system also emphasizes monitoring and quality assurance. Student learning outcomes are tracked annually through course evaluations, performance reviews, and feedback from instructors and stakeholders. These results are used to refine teaching strategies, update course content, and enhance curriculum effectiveness. Through this structured and integrative learning process, the program ensures that all students achieve the expected CLOs, YLOs, and PLOs, while developing the capacity for lifelong learning and professional growth in the field of architecture and the built environment.

Program Learning Outcomes, Strategies, and Assessment Methods for Learning Management

Program Learning Outcomes (PLO)	Learning Management Strategies	Learning Management Assessment Methods
PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.	Integrated and interdisciplinary learning through lectures, seminars, case studies, field observation, site analysis, environmental studies, analytical mapping, and studio-based activities. Learning progresses from identifying basic conditions to analyzing and evaluating complex relationships among people, place, and environment.	**Authentic evidence:** site-analysis assignments, analytical maps, case-study reports, environmental analyses, written examinations, and project reports. **Tools:** analytic rubric, report-assessment form, observation checklist, and examination scoring guide. **Rubric criteria:** accuracy of information, identification of relevant factors, depth of analysis, explanation of relationships, integration of interdisciplinary evidence, and justification of conclusions. Students must support analytical claims with site data, literature, measurements, maps, or other relevant evidence.
PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.	Studio-based, project-based, problem-based, and experiential learning. Students use drawings, physical and digital models, GIS, BIM, simulation, mapping, and other analytical tools through iterative processes of problem definition, option development, testing, evaluation, and refinement.	**Authentic evidence:** design projects, technical drawings, models, simulations, BIM or GIS outputs, prototypes, portfolios, and studio juries. **Tools:** design-project rubric, technical-performance checklist, digital-output rubric, portfolio rubric, and jury evaluation form. **Rubric criteria:** appropriateness of selected tools, technical accuracy, integration of methods, responsiveness to functional and contextual requirements, evaluation of alternatives, design development, and feasibility of solutions. Both

Program Learning Outcomes (PLO)	Learning Management Strategies	Learning Management Assessment Methods
		process documentation and final outputs are assessed.
PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.	Communication practice through design critiques, seminars, academic writing, visual representation, group discussions, oral presentations, digital media, and peer feedback. Students learn to select communication formats appropriate to different academic, professional, community, and international audiences.	**Authentic evidence:** oral presentations, design juries, visual boards, drawings, diagrams, digital media, written reports, portfolios, and seminar presentations. **Tools:** presentation rubric, visual-communication rubric, academic-writing rubric, portfolio rubric, and peer-feedback form. **Rubric criteria:** clarity and structure, accuracy, visual hierarchy, quality of written and oral communication, appropriate use of media, professional presentation, response to questions, and adaptation to the intended audience. Peer assessment may supplement, but does not replace, instructor assessment.
PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.	Ethics, social responsibility, cultural diversity, environmental impacts, international perspectives, and professional standards are integrated into lectures, studios, seminars, community engagement, case studies, and reflective discussions. Students examine alternative decisions and justify their positions using relevant evidence and standards.	**Authentic evidence:** case analyses, reflective essays, stakeholder analyses, impact assessments, design-justification reports, policy reviews, and project proposals. **Tools:** ethical-reasoning rubric, reflective-writing rubric, impact-assessment rubric, stakeholder-engagement checklist, and design-justification rubric. **Rubric criteria:** recognition of affected groups and ethical issues, cultural sensitivity, consideration of social and environmental impacts, application of professional or international principles, comparison of alternatives, use of evidence, and

Program Learning Outcomes (PLO)	Learning Management Strategies	Learning Management Assessment Methods
		justification of decisions. A reflective essay must contain a clear position, supporting evidence, critical reflection, and implications for future decisions.
PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.	Team projects, studio collaboration, seminars, project planning, consultation, learning journals, peer learning, and reflective practice. Students assign roles, establish work plans, monitor progress, respond to feedback, conduct self-assessment, and improve their work throughout the learning process.	**Authentic evidence:** group projects, process logs, meeting records, individual contribution records, learning journals, progress reports, self-assessments, peer assessments, and revised work. **Tools:** teamwork rubric, individual-contribution rubric, self-management checklist, reflective-learning rubric, peer-assessment form, and advisor observation record. **Rubric criteria:** responsibility, fulfillment of assigned roles, quality of contribution, collaboration, time and resource management, response to feedback, problem resolution, self-assessment, and evidence of improvement. Group products and individual performance are scored separately to ensure fair assessment.

5. Readiness and competency of Faculty members

The Bachelor of Science Program in Architecture and Built Environment ensures that program leaders, core faculty members, and instructors possess appropriate academic qualifications, professional experience, and teaching competence in accordance with Kasetsart University regulations, national curriculum standards, and relevant professional expectations in architecture and the built environment. The program places emphasis on outcome-based education, interdisciplinary learning, and experiential learning aligned with the university's philosophy of learning through real-life experience, knowledge integration, and lifelong learning. A systematic plan has been established to support faculty readiness, continuous professional development, and effective instructional management to ensure that students achieve the intended Program Learning Outcomes (PLOs).

5.1 Readiness and Competency of Faculty Members

5.1.1 Faculty Members

The program has established measures to ensure that faculty members are academically and professionally prepared to deliver the curriculum and support student learning. Faculty members responsible for teaching and supervising students possess expertise in architecture, built environment studies, environmental analysis, sustainability, digital design, and related fields, and are capable of integrating theory with practice in teaching and learning activities.

The program also benefits faculty members with specialized expertise across key domains of architecture and the built environment, including architectural design, urban and landscape studies, environmental and climate-responsive design, cultural heritage and conservation, riverine and waterfront landscapes, sustainable tourism and community-based development, digital design technologies, spatial analysis and geographic information systems (GIS), and built environment data analysis. These areas of expertise support the program's three guiding principles.

- First, design for well-being emphasizes human-centered environments that promote health, comfort, and quality of life through thoughtful spatial and environmental design.
- Second, the heritage ecosystem principle highlights the understanding of cultural landscapes, traditional knowledge, and community-based heritage as integrated systems connecting people, place, and environment.
- Third, building performance focuses on the evaluation and optimization of environmental performance, energy use, and climate responsiveness through analytical and digital tools.

Together, these specializations allow faculty members to integrate interdisciplinary perspectives, real-world problem solving, and applied research into teaching and studio activities, strengthening students' ability to address contemporary challenges in architecture and the built environment.

5.1.1.1 Instructional Management for Achieving Learning Outcomes

Instructional management is designed to ensure alignment between teaching activities, assessment methods, and the intended learning outcomes of the program. Key practices include:

1. Orientation and communication sessions are organized to ensure that faculty members clearly understand the Program Learning Outcomes (PLOs), Yearly Learning Outcomes (YLOs), and Course Learning Outcomes (CLOs), as well as their roles in supporting outcome-based education.
2. Faculty members collaboratively develop course syllabi and learning plans using constructive alignment and backward curriculum design, ensuring coherence between learning activities and assessment methods.
3. Teaching and learning approaches emphasize studio-based learning, project-based learning, field-based learning, and experiential learning to support achievement of learning outcomes.
4. Faculty members engage in reflective teaching practices, including self-evaluation and peer exchange, to continuously improve instructional strategies and student learning support.

5.1.1.2 Academic and Professional Expertise

The program promotes continuous development of academic and professional expertise among faculty members through the following measures:

1. Faculty members are encouraged and supported to participate in academic training, professional seminars, workshops, conferences, and study visits at the national and international levels.
2. The program supports the development of teaching and assessment competencies related to outcome-based education, digital learning tools, design studios, and interdisciplinary instruction.
3. Faculty members are encouraged to engage in research, creative works, and academic services related to architecture, built environment, sustainability, and community development, ensuring that teaching content remains current and relevant.
4. Knowledge sharing and exchange of good practices among faculty members are promoted to enhance teaching quality and curriculum implementation.

5.1.1.3 Faculty Development Plan

The program has established a faculty development plan to ensure that teaching and supervision effectively support student achievement of the intended learning outcomes. The plan includes:

1. Preparation for New Faculty Members

   1.1 Orientation for new faculty members covering program objectives, curriculum structure, Program Learning Outcomes (PLOs), teaching responsibilities, and assessment practices.

   1.2 Training in outcome-based education, instructional design, studio teaching methods, and student assessment aligned with learning outcomes.

   1.3 Support for research initiation, including mentoring and opportunities to collaborate with experienced researchers.

2. Ongoing Development for Program Faculty

   2.1 Annual instructional development activities focusing on teaching innovation, digital tools, studio pedagogy, and interdisciplinary learning.

   2.2 Academic development through encouragement and support for scholarly work, research publications, and academic promotion.

   2.3 Research and innovation development through internal and external funding opportunities and support for national and international publications.

   2.4 Development of academic advising and student supervision skills through participation in training programs and advisor seminars.

5.1.2 Name, Surname, Academic Position, And Educational Qualifications of Faculty Members responsible for the curriculum

No.	Academic Position	Name – Surname	Educational Qualifications
1	Assistant Professor	Kuanchai Kakaew	Master of Architecture (Building Technology), CHULALONGKORN UNIVERSITY, TH, 2007 Bachelor of Architecture (Architecture), KASETSART UNIVERSITY, TH, 2000
2	Associate Professor	Patiphol Yodsurang	Doctor of Philosophy (World Heritage Studies), UNIVERSITY OF TSUKUBA, JP, 2017 Master of World Heritage Studies, UNIVERSITY OF TSUKUBA, JP, 2011 Bachelor of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 2006
3	Lecturer	Pornpas Siricururatana	Doctor of Philosophy (Architecture), THE UNIVERSITY OF TOKYO, JP, 2021 Master of Engineering (Architecture), THE UNIVERSITY OF TOKYO, JP, 2011 Bachelor of Engineering (Architecture), THE UNIVERSITY OF TOKYO, JP, 2009
4	Assistant Professor	Suchon Mallikamarl	Doctor of Technical Sciences (Architecture), VIENNA UNIVERSITY OF TECHNOLOGY, AT, 2018 Master of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 2007 Bachelor of Architecture (Architecture), KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG, TH, 2002
5	Assistant Professor	Thitiwoot Chaisawasaree	Master of Architecture (Architectural Conservation), CHULALONGKORN UNIVERSITY, TH, 2000 Bachelor of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 1997

5.1.3 Name, Surname, Academic Position, Educational Qualifications, Academic Works of Faculty Members responsible for the curriculum, Curriculum Faculty Members, Instructors or Guest Lecturers

1) Faculty Member Responsible for the Curriculum and Curriculum faculty members

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
1	Aracha Krasae-in Assistant Professor Doctor of Science (Technopreneurship and Innovation Management), CHULALONGKORN UNIVERSITY, TH, 2015 Master of Marketing (Marketing), THAMMASAT UNIVERSITY, TH, 2004 Bachelor of Industrial Design (Industrial Design), CHULALONGKORN UNIVERSITY, TH, 1999	**Research** 1. The study of food vendor's selling space and equipment management in urban flea markets, 2025 2. An examination of the gastronomic landscape in riverside cities of Thailand, 2025		01243112 01243291 01243121 01243122 01243152 01243111 01243333 01243461 01243491 01243492
2	Chanikarn Yimprayoon Associate Professor Doctor of Philosophy (Architecture), UNIVERSITY OF MICHIGAN, US, 2012 Master of Science, GEORGIA INSTITUTE OF TECHNOLOGY, US, 2002 Bachelor of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 1997	**Research** Indoor Air Quality Investigation of Fresh Markets in Hot and Humid Climates: A Case Study in Thailand, 2026		01243341 01243242 01243342 01243343 01243491 01243492
3	Kantitut Tubsuwan Lecturer Doctor of Philosophy (Construction), HERIOT-WATT UNIVERSITY, GB, 2017 Master of Science (Architectural Engineering), with Distinction, HERIOT-WATT UNIVERSITY, GB, 2012 Bachelor of Engineering (Civil Engineering), KASETSART UNIVERSITY, TH, 2008	**Research** Effect of Three Vegetations on Rainwater Retention in Extensive Green Roofs: A Comparative Study, 2025		01243152 01243252 01243341 01243242 01243342 01243141 01243343 01243491 01243492

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
4	Kuanchai Kakaew* Assistant Professor Master of Architecture (Building Technology), CHULALONGKORN UNIVERSITY, TH, 2007 Bachelor of Architecture (Architecture), KASETSART UNIVERSITY, TH, 2000	**Research** Development of Self-Help Lifting Pads for Elderly People with Difficulty in Sitting Up, 2024		01243241 01243393 01243151 01243491 01243492
5	Onumpai Samkhuntod Associate Professor Doctor of Philosophy (Buddhist Studies), MAHACHULALONGKORNRAJAVIDYALAYA UNIVERSITY, TH, 2018 Master of Science (Leisure and Environments), WAGENINGEN UNIVERSITY, NL, 2003 Bachelor of Landscape Architecture, CHULALONGKORN UNIVERSITY, TH, 1999	**Research** Sacred Trees as Sites of Enlightenment and Functional Space, 2025		01243111 01243113 01243331 01243351 01243491 01243492
6	Panitat Ratanawichit Assistant Professor Master of Science (Built Environment: Urban Design), UNIVERSITY COLLEGE LONDON, GB, 2002 Bachelor of Landscape Architecture (Landscape Architecture), CHULALONGKORN UNIVERSITY, TH, 1998	**Research** First-Mile Walking to Transit and Physical Activity: A Cross-Sectional Study of the MRT Pink Line Corridor in Bangkok, Thailand, 2026		01243331 01243491 01243492
7	Patiphol Yodsurang* Associate Professor Doctor of Philosophy (World Heritage Studies), UNIVERSITY OF TSUKUBA, JP, 2017 Master of World Heritage Studies, UNIVERSITY OF TSUKUBA, JP, 2011	**Research** 1. A geo-cultural analysis of the relationship between Shitalpati craftsmanship communities and murta cultivation landscapes in Bangladesh, 2026		01243113 01243291 01243222 01243371 01243111 01243374 01243392 01243493

* Faculty members responsible for the Curriculum

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
	Bachelor of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 2006	2. Transit-oriented development and morphological patterns of flea markets in urban and peri-urban fringe: Cases from Bangkok. 2026 3. Transforming water overflow into sustainable tourism: Community resilience in Ayutthaya's Sena trough, 2026		01243351 01243373 01243352 01243395 01243491 01243492
8	Pattaranan Takkanon Associate Professor Doctor of Philosophy (Architecture), THE UNIVERSITY OF QUEENSLAND, AU, 2006 Bachelor of Architecture, Second-Class Honors, CHULALONGKORN UNIVERSITY, TH, 1998	**Research** การศึกษาความเหมาะสมในการติดตั้งกังหันลมผลิตไฟฟ้า มหาวิทยาลัยมหิดล ศาลายา, 2569		01243232 01243341 01243242 01243342 01243343 01243491 01243492
9	Pornpas Siricururatana* Lecturer Doctor of Philosophy (Architecture), THE UNIVERSITY OF TOKYO, JP, 2021 Master of Engineering (Architecture), THE UNIVERSITY OF TOKYO, JP, 2011 Bachelor of Engineering (Architecture), THE UNIVERSITY OF TOKYO, JP, 2009	**Scholarly composition** MATERIAL JOURNEY: Appropriate Construction Technology (2021-2025), 2026 **Other Types of Academic Work** โรงแรมบีนส์ทอล์ค กรุงเทพ, 2568		01243241 01243391 01243111 01243141 01243491 01243492
10	Saithiwa Ramasoot Assistant Professor Doctor of Philosophy (Architecture), UNIVERSITY OF PENNSYLVANIA, US, 2008 Master of Architecture (Historic Preservation), UNIVERSITY OF WASHINGTON, US, 2000	**Research** An exploration of live-work housing conditions of low-income older people in Bangkok, Thailand, 2024		01243372 01243113 01243491 01243492

* Faculty members responsible for the Curriculum

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
	Bachelor of Architecture (Architecture), First-Class Honors, CHULALONGKORN UNIVERSITY, TH, 1996			
11	Sani Limthongsakul Associate Professor Doctor of Philosophy (Urban Environmental Management), ASIAN INSTITUTE OF TECHNOLOGY, TH, 2017 Master of Landscape Architecture, TEXAS A&M UNIVERSITY, US, 1996 Bachelor of Architecture (Architecture), KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG, TH, 1992	**Research** Geospatial analytics of food miles from Bangkok's peri-urban agricultural landscape to enhance urban food system resilience, 2026		01243232 01243331 01243491 01243492
12	Sigit Dwiananto Arifwidodo Associate Professor Doctor of Philosophy (Urban Environmental Management), ASIAN INSTITUTE OF TECHNOLOGY, TH, 2010 Master of Engineering (Regional and City Planning), INSTITUT TEKNOLOGI BANDUNG, ID, 2003 Bachelor of Engineering (Architectural Engineering), GADJAH MADA UNIVERSITY, ID, 2001	**Research** Community-Driven Flood Risk Identification Using Participatory Mapping in Nakhon Nayok Province, Thailand, 2025		01243331 01243491 01243492
13	Siradech Surit Assistant Professor Doctor of Engineering (Civil Engineering), KASETSART UNIVERSITY, TH, 2011 Master of Engineering (Civil Engineering), KASETSART UNIVERSITY, TH, 2004 Bachelor of Engineering (Civil Engineering), CHIANG MAI UNIVERSITY, TH, 1998	**Research** Structure weight estimation of low-rise steel frame buildings by generative design, 2024		01243252 01243491 01243492
14	Soranart Sinuraibhan Assistant Professor	**Research** 1. An exploration of live–work housing conditions of		01243332 01243322 01243111 01243394

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
	Doctor of Philosophy (Architecture), THE UNIVERSITY OF SHEFFIELD, GB, 2005 Master of Arts (Architectural Theory and Design), THE UNIVERSITY OF NOTTINGHAM, GB, 2000 Bachelor of Architecture, RANGSIT UNIVERSITY, TH, 1997	low-income older people in Bangkok, Thailand, 2024 2. Actual material virtual materiality: Multiplicity of locality-based exhibition, 2024		01243334 01243491 01243492
15	Suchon Mallikamarl* Assistant Professor Doctor of Technical Sciences (Architecture), VIENNA UNIVERSITY OF TECHNOLOGY, AT, 2018 Master of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 2007 Bachelor of Architecture (Architecture), KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG, TH, 2002	**Research** Reexamining the Understanding of Vernacular House of "Hill Tribes" in Thailand: A Case of Iu Mien House in Phulangka Village, 2024		01243251 01243241 01243221 01243111 01243141 01243398 01243491 01243492
16	Supreeya Wungpatcharapon Assistant Professor Doctor of Philosophy (Architecture), THE UNIVERSITY OF SHEFFIELD, GB, 2012 Master of Science (Development Planning: Building and Urban Design in Development), UNIVERSITY OF LONDON, GB, 2006 Bachelor of Architecture, First-Class Honors, KASETSART UNIVERSITY, TH, 2000	**Research** 1. An exploration of live–work housing conditions of low-income older people in Bangkok, Thailand, 2024 2. A Comparative Study on Biophilic Preferences of School Learning Settings: A Case of Elementary Schools in Asia, 2024		01243232 01243332 01243321 01243334 01243491 01243492
17	Tanasi Samphantharak Petyim Assistant Professor Doctor of Philosophy (Science and Technology Studies), THE UNIVERSITY OF NOTTINGHAM, GB, 2014	**Research** Landscape Changes of Thai Traditional Orchard: Case Study of Food and Beverage Precincts in Orchards in		01243331 01243351 01243491 01243492

* Faculty members responsible for the Curriculum

No.	Name – Surname Academic Position Qualification (Field of Study) Institution Name Year of Graduation	Academic Works	Teaching Load	
			Current Curriculum	New Curriculum
	Diplôme Propre aux Écoles d'Architecture (Jardins Historiques, Patrimoine et Paysage), ÉCOLE D'ARCHITECTURE DE VERSAILLES, FR, 2000 Bachelor of Landscape Architecture (Landscape Architecture), Second-Class Honors, CHULALONGKORN UNIVERSITY, TH, 1996	Nonthaburi and Nakhon Pathom, 2024		
18.	Thitiwoot Chaisawasaree* Assistant Professor Master of Architecture (Architectural Conservation), CHULALONGKORN UNIVERSITY, TH, 2000 Bachelor of Architecture (Architecture), CHULALONGKORN UNIVERSITY, TH, 1997	**Other Types of Academic Work** อาคารปฏิบัติการเพื่อนวัตกรรมสิ่งแวดล้อม มหาวิทยาลัยเกษตรศาสตร์, 2568		01243113 01243391 01243396 01243491 01243492
19.	Vudipong Davivongs Associate Professor Doctor of Philosophy (Natural Environmental Studies), THE UNIVERSITY OF TOKYO, JP, 2012 Master of Landscape Architecture (Landscape Architecture and Regional Planning), UNIVERSITY OF PENNSYLVANIA, US, 1999 Bachelor of Science (Agriculture), KASETSART UNIVERSITY, TH, 1994	**Research** Community-Driven Flood Risk Identification Using Participatory Mapping in Nakhon Nayok Province, Thailand, 2025		01243111 01243331 01243351 01243491 01243492

2) Instructors

None

3) Guest lecturers

None

* Faculty members responsible for the Curriculum

5.1.4 Support Staff

The program is supported by an integrated staffing structure operating at the program, faculty, and university levels, as presented in the table below. At the program level, three staff members provide direct support: one full-time program officer and two educational and administrative staff members. Their responsibilities include academic administration, course coordination, registration, student records, curriculum documentation, scheduling, procurement, financial coordination, fieldwork and seminar arrangements, student services, English-language communication, and support for international students.

At the faculty level, shared laboratory, workshop, technical, computer, digital-production, and audio-visual staff support studio teaching, model making, equipment use, digital design, presentations, and safety procedures. At the university level, information technology and library units provide digital learning platforms, university information systems, software, databases, academic publications, and information-literacy services. Additional operational staff may also be assigned when required for workshops, international activities, field studies, seminars, and project-based learning. This combined structure ensures that the program has adequate administrative, technical, and learning-resource support for effective curriculum implementation and student achievement.

Level	Support Staff or Unit	Number	Main Responsibilities
Program	Full-time program officer	1	Academic administration, course coordination, student records, curriculum documentation, communication in English, international student support, and coordination with internal and external organizations
Program	Educational and administrative staff	2	Registration coordination, academic documents, scheduling, procurement, finance, fieldwork, seminars, and student services
Faculty	Laboratory, workshop, and technical staff	Shared services	Support for studios, model making, equipment, materials, laboratories, technical activities, and safety procedures
Faculty	Computer, digital-production, and audio-visual staff	Shared services	Support for computers, software, digital production, presentations, equipment, and documentation of academic activities

Level	Support Staff or Unit	Number	Main Responsibilities
University	Information technology service units	Shared services	Internet infrastructure, digital learning platforms, university information systems, accounts, software, and data management
University	Library and learning-resource staff	Shared services	Access to books, journals, databases, digital resources, information-literacy support, and interlibrary services
Program/Faculty	Additional operational staff	Assigned as required	Support for workshops, international activities, field studies, seminars, and other project-based learning activities

5.2 Readiness of Learning Resources to Support Student Learning Outcomes

The readiness of learning resources is supported by facilities at the Faculty of Architecture, Kasetsart University, as summarized below. These resources accommodate an initial intake of 45 students and support lectures, studio-based learning, group work, digital production, presentations, independent study, and program administration.

Resource Category	Room / Facility	Number	Area	Capacity	Main Equipment / Support	Learning Activities Supported
Classrooms	Rooms 3601 and 3604	2 rooms*	75.55 and 73.75 sq.m.	50 and 45 students	Each room has one projector and one computer	Lectures, seminars, discussions, presentations, and group learning
Meeting and design-practice rooms	Rooms 3605 and 3607	2 rooms	28.25 and 39.00 sq.m.	20 students each	Each room has two projectors; Room 3605 has one computer	Design practice, group work, critiques, workshops, and project consultation
Computer laboratory	Room 1202	1 room	141.20 sq.m.	45 students	45 computers, three plotters, and two printers	Computer-aided design, BIM, GIS, modeling, visualization, simulation, and digital production
Faculty library	Rooms 2212 and 2212/1	1 facility	529.20 sq.m.	150 users	Books, journals, databases, digital resources, and information services	Literature review, research, independent study, and lifelong learning

Resource Category	Room / Facility	Number	Area	Capacity	Main Equipment / Support	Learning Activities Supported
Student study and common space	Room 3602 and adjoining common area	1 facility	168.55 sq.m.	90 students	Study and common-use areas	Independent learning, teamwork, informal consultation, and student activities
Program office	Room 3606	1 room	33.65 sq.m.	5 staff members	Administrative workspace and program coordination facilities	Academic administration, student support, curriculum documentation, and coordination
Digital infrastructure	Faculty and university systems	Shared services	—	All students and staff	Internet access, digital learning platforms, university information systems, licensed software, and data services	Blended learning, course management, communication, digital submissions, and data management
Specialized laboratories and workshops	Faculty facilities	Shared services	—	According to facility regulations	Model-making tools, technical equipment, materials, and safety provisions	Prototyping, material experimentation, environmental analysis, and technical workshops

6. Qualifications of Applicants, Enrollment Plan, and Budget

6.1 Qualifications of Applicants

Must have completed upper secondary education (high school) or an equivalent program recognized by the Ministry of Education.

6.2 Student Admission and Graduation Plan Over Five Years

Year	Academic Year				
	2027	2028	2029	2030	2031
1	45	45	45	45	45
2		45	45	45	45
3			45	45	45
4				45	45
Total	45	90	135	180	180
Number of Students Expected to Graduate					**45**

6.3 Budget

Item	2027	2028	2029	2030	2031
Revenue Budget					
Lump-sum Tuition Fees	6,750,000	13,500,000	16,875,000	23,625,000	23,625,000
Total Revenue	6,750,000	13,500,000	16,875,000	23,625,000	23,625,000
Expenditure Budget					
Personnel Budget	1,856,000	3,233,200	4,259,886	5,080,072.58	5,080,072.58
Operating Budget	700,000	700,000	700,000	700,000	700,000
Investment Budget	1,800,000	3,600,000	4,500,000	6,300,000	6,300,000
Subsidy Budget	225,000	450,000	562,500	787,500	787,500
Other Expenditures	200,000	150,000	1,275,000	1,410,000	1,410,000
Total Expenditure	4,781,000	8,133,200	11,297,386	14,277,572.58	14,277,572.58
Number of Students per Academic Year	45	90	135	180	180
Cost per Head for Producing Graduates (THB)	106,244	90,369	83,684	79,320	79,320

6.4 Admission System

The program admits both Thai and international applicants through two admission pathways. Thai applicants are admitted through the Thai University Central Admission System (TCAS), including the Portfolio Round (Chang Phueak/Portfolio), relevant Quota Rounds, and the Central Admission Round. Applicants are selected based on academic qualifications, English-language proficiency, portfolios demonstrating interest and ability related to architecture and the built environment, interviews, and other criteria specified for each admission round.

International applicants, including non-Thai applicants and applicants with international educational qualifications, are admitted through the international admission system coordinated by Kasetsart University International College (KUIC), in accordance with university and program requirements. The selection process includes verification of educational qualifications, English-language proficiency, portfolios, interviews, and other required documents. Both pathways apply comparable academic and English-language standards to ensure transparency, fairness, diversity, and alignment with the program learning outcomes.

6.5 Enrollment Procedures

The program establishes its annual student intake plan in accordance with the approved curriculum and Kasetsart University regulations. Admission and enrollment are implemented through the TCAS system for Thai applicants and the KUIC international admission system for international applicants, as follows:

1. The program committee reviews the annual admission policy, target intake, program capacity, and allocation of places between the TCAS and international admission pathways.
2. The program committee and responsible faculty members define applicant qualifications, English-language requirements, portfolio criteria, assessment methods, and interview procedures for both pathways.
3. For Thai applicants, the program coordinates with the Faculty Academic Services Office and the Office of Academic Affairs to enter the approved criteria into the TCAS and university admission systems and announce the official admission information.

4. For international applicants, the program coordinates with KUIC to announce application requirements, receive applications, verify educational qualifications and supporting documents, and communicate with applicants in English.
5. Interview and assessment committees are appointed to review applications, portfolios, English-language readiness, academic potential, motivation, and suitability for the program.
6. Admission results are approved and announced through the relevant official system. Successful applicants complete confirmation, registration, tuition payment, and student-record procedures according to university requirements.
7. International students receive additional support concerning immigration documents, visas, health insurance, orientation, English-language information, and adjustment to university systems and academic life in Thailand.
8. The program reviews admission and enrollment outcomes after each round and at the end of each admission cycle, including applicant numbers, acceptance rates, student diversity, academic readiness, and enrollment confirmation, to improve the following year's admission process.

6.6 Complaint and Appeal Management System

The program has a structured system for managing student complaints and appeals. Students may submit complaints through academic advisors, course instructors, program coordinators, or the head of department. Complaints related to course delivery or program management are reviewed by the program committee, while issues with broader implications are forwarded to the department or faculty level for consideration. Appropriate corrective actions are implemented based on the nature and impact of the issue. The program conducts follow-up to ensure that complaints are addressed satisfactorily. Students are informed of complaint and appeal channels during orientation and at the beginning of each semester. All complaints are handled with respect for student privacy, and personal information is kept confidential in accordance with university regulations.

7. Learning Assessment and Graduation Criteria

7.1 Grading Criteria

According to Kasetsart University Regulations on Kasetsart University Undergraduate Studies B.E. 2566 (2023), the details are as follows:

Clause 14: Evaluation and assessment

14.1 Assessment of each course can be done by evaluating the learning outcomes of students as specified in each course and is in the form of grades, which can be interpreted as follows:

Grade	Meaning	Grade Point
A	Excellent	4.0
B+	Very good	3.5
B	Good	3.0
C+	Fairly good	2.5
C	Fair	2.0
D+	Poor	1.5
D	Very poor	1.0
F	Fail	0.0
I	Incomplete	–
S	Satisfactory	–
U	Unsatisfactory	–
P	Passed	–
NP	Not passed	–
N	Grade not reported	–

Grade "I" is used only in the case where some works of a student in a particular course are incomplete, but such student has been assessed for other tasks throughout the semester, which met the instructor's satisfaction.

Grades "S" and "U" are used for audit courses.

Grade "P" and "NP" is used for the courses whose grades are not calculated in the cumulative GPA, non-credit internship, or courses whose credits are transferred from another institution.

Grade "N" is used only in the case where the grade has not been reported.

14.2 Students need to **proceed with adjusting the grades I and N within 30 days after the last date of grade submission of each semester.** Late adjustment of grades must be approved by the course instructor and the Dean of the faculty owning such courses, but it must not be later than the end of the following regular semester. If students fail to follow this regulation, they will receive an F or U in that course.

14.3 **Adjustment of grades must be based on reasonable grounds and accompanied by supporting documents and evidence.** In addition, **approval** must be granted by the **course instructor, the Working Committee of the faculty owning such courses**, and **Vice President** for Academic Affairs.

14.4 Calculation of cumulative GPA

14.4.1 For the calculation of a student's cumulative GPA, the points of all the registered credit courses, both pass and fail, shall be included.

14.4.2 For the calculation of the cumulative GPA of a student transferred from another major, program or faculty, the points of all the courses appearing in the new program to which the student has been transferred, whether they are transferred courses or not, must be included. The courses that do not appear in the program to which the student has been transferred will not be calculated in the cumulative GPA.

14.4.3 For the calculation of the cumulative GPA of a student transferred from another educational institution and a student with a diploma or equivalent who has been admitted to continue their education, only newly registered courses will be included.

14.4.4 The calculation of the cumulative GPA for student status differentiation based on the criteria in Items 26.3.8 and 26.3.9 will be carried out twice a year at the end of the first semester and the second semester. The study result of a summer session shall be calculated with the study results in the following semester, except for those graduating in such summer session.

14.4.5 **The faculty may suspend the announcement** of study results or issuance of a transcript for students if **they are still indebted** to their department or faculty.

14.4.6 The University may suspend issuance of a transcript and any certificate to students if they have outstanding academic-related debts within or outside the University although the study results have already been announced.

7.2 Graduation Criteria According to the Curriculum

The student must complete the number of credits specified in the curriculum and achieve a cumulative GPA of no less than 2.00 on a 4-point scale (or equivalent) and attain the learning outcomes in accordance with the Higher Education Qualification Standard for Bachelor's degree.

This must also comply with the current version of Kasetsart University's Regulations on Kasetsart University Undergraduate Studies and all relevant procedural guidelines.

7.3 Process for Verification of Students' Learning Outcome Achievement

7.3.1 Verification at the Course and Program Levels During Study

1) Learning outcomes in every course are verified by a curriculum verification committee assigned to each course offered.
2) Clearly defined verification targets include: teaching strategies, assessment methods, and evaluation of learning outcomes; teaching techniques or learning activities; assessment tools such as exams, practical evaluations, project reports; grading sources like student feedback, teaching evaluations, interviews, and observations.
3) Define the methods for course-level assessment verification, such as evaluation based on learning outcomes by students, classroom observation, learning activity observation, student interviews, teaching evaluations by students, analysis of consistency/assessment criteria in relation to the teaching plan/learning outcomes, examination assessment, practical work assessment, and teaching evaluation reports by instructors/committees/experts.
4) Report the verification results to the responsible committee members/ curriculum or program administrative committee/academic field/department.
5) Use the verification results to report teaching outcomes and develop an improvement plan for the teaching plan, as well as for curriculum revision and development.
6) Conduct program evaluation by final-year students.
7) Use the results from self- assessments and curriculum quality assessment committees to improve and manage the curriculum for each academic year.

7.3.2 Verification at the Program Level After Graduation

1) Use the results from self- assessments and curriculum quality assessment committees to improve and manage the curriculum for each academic year.

2) Assess the satisfaction of employers/graduates who are entrepreneurs.
3) Examine career success.
4) Evaluate the graduate's recognition in society or the professional community.
5) Assess the creation of works that have received awards.
6) Evaluate recognition and acceptance by the labor market/employers.

8. Curriculum Quality Assurance

The Bachelor's Degree Program in Architecture and Built Environment applies the ASEAN University Network Quality Assurance (AUN-QA) framework as its principal quality assurance system, together with the performance indicators prescribed by Kasetsart University. The program is administered in accordance with the Higher Education Curriculum Standards B.E. 2565 (2022), the Kasetsart University Undergraduate Regulations B.E. 2566 (2023), the approved curriculum document, and other relevant university requirements. The Faculty formally appoints a Curriculum Management Committee comprising the program chair, faculty members responsible for the curriculum, and full-time program faculty members. The committee is responsible for curriculum administration, maintenance of academic standards, monitoring of graduate quality, academic staff development, review of performance indicators, and continuous quality improvement.

Curriculum Management and Quality Assurance through the PDCA Cycle

The program applies the Plan–Do–Check–Act (PDCA) cycle to curriculum management. The process begins with the establishment of targets for curriculum standards, PLO achievement, graduate quality, teaching and assessment, academic staff capacity, student support, facilities, outputs, outcomes, and Kasetsart University performance indicators.

Plan: The Curriculum Management Committee analyzes previous performance, student achievement, stakeholder feedback, curriculum evaluation results, staffing requirements, available resources, and changes in academic and professional contexts. Based on this analysis, the committee prepares an annual operational and quality improvement plan specifying objectives, targets, activities, implementation periods, responsible persons, required resources, and assessment methods. Teaching assignments are planned according to instructors' qualifications, expertise, experience, and workload.

Do: The program implements the approved curriculum, study plan, teaching assignments, learning activities, assessment methods, student support measures, academic staff development activities, and quality improvement projects according to the established plan. Instructors prepare course specifications, CLOs, teaching plans, assessment criteria, and course reports for each semester. The Curriculum Management Committee coordinates implementation across courses and years of study to maintain alignment among the PLOs, YLOs, CLOs, teaching and learning activities, and student assessment.

Check: The Curriculum Management Committee monitors curriculum implementation and compliance with relevant standards through regular meetings held at least twice each academic year. Evidence includes course reports, CLO and PLO achievement results, student assessment data, teaching evaluations, student satisfaction, graduate and employer feedback, academic staff workload and development records, student progression and graduation data, and university performance indicators. Actual results are compared with the established targets. Where a target is not achieved, the committee identifies the causes, affected processes, and necessary corrective actions.

Act: The committee uses the review findings to improve curriculum administration, course content, curriculum mapping, teaching approaches, assessment methods, student support services, facilities, staff development, and resource allocation. Responsible persons and completion periods are assigned for each improvement action, and implementation is followed up in subsequent meetings. Effective practices are standardized and incorporated into the following academic year's plan, while unresolved issues are carried forward with revised actions and targets.

Curriculum Standard Oversight

The program manages and monitors curriculum implementation to ensure compliance with relevant curriculum standards through the following processes:

1. The Curriculum Management Committee verifies that the curriculum is implemented in accordance with the Higher Education Curriculum Standards B.E. 2565 (2022), Kasetsart University regulations, the approved curriculum document, and other relevant requirements.
2. The committee reviews the number, qualifications, academic positions, expertise, and academic works of faculty members responsible for the curriculum to ensure continued compliance with the prescribed standards.
3. Teaching responsibilities are assigned according to each instructor's qualifications, expertise, experience, and workload. The committee also verifies that all required and elective courses specified in the curriculum structure are assigned to qualified instructors.
4. The committee reviews the study plan, course offerings, prerequisites, credit requirements, and graduation requirements before each academic year to ensure consistency with the approved curriculum structure.

5. Instructors prepare course specifications, CLOs, teaching plans, assessment methods, and assessment criteria before the beginning of each semester. These documents are reviewed to ensure alignment with the PLOs and outcome-based education principles.
6. Course implementation and student achievement are monitored through course reports, assessment results, CLO and PLO achievement data, teaching evaluations, and student feedback at the end of each semester.
7. The Curriculum Management Committee meets at least twice each academic year to review compliance, curriculum implementation, academic staff workload, student progress, performance indicators, identified problems, and improvement actions.
8. Any change affecting the curriculum structure, course requirements, study plan, faculty members responsible for the curriculum, or other approved conditions must be reviewed and approved through the relevant departmental, faculty, and university procedures before implementation.
9. The program prepares an annual curriculum performance report and uses the results to establish corrective and improvement actions. Implementation of these actions is monitored in the following academic year.
10. A comprehensive curriculum review is conducted within the prescribed five-year cycle using evidence from AUN-QA criteria, Kasetsart University performance indicators, learning outcome assessment, and stakeholder feedback to maintain standards and ensure continuous improvement.

8.1 Expected Learning Outcomes

The program ensures the appropriateness, alignment, communication, and achievement of its expected learning outcomes through the following processes:

1. The Program Learning Outcomes (PLOs) are formulated in accordance with outcome-based education and Bloom's Taxonomy. Measurable action verbs are used to indicate appropriate levels of learning, progressing from understanding and application to analysis, evaluation, integration, and independent performance. The PLOs reflect Kasetsart University's vision, mission, desired graduate attributes, the KSEC domains, and the Faculty of Architecture's emphasis on green architecture and sustainable development.

2. The Course Learning Outcomes (CLOs) of every course are aligned with the PLOs through curriculum mapping. The alignment among PLOs, Year Learning Outcomes (YLOs), CLOs, course content, teaching and learning activities, and assessment methods is reviewed before implementation and at the end of each academic year.
3. The PLOs cover both generic and subject-specific outcomes. Generic outcomes include communication, problem-solving, digital and information technology skills, teamwork, ethical responsibility, self-management, intercultural sensitivity, and lifelong learning. Subject-specific outcomes include architectural and built-environment analysis, design, environmental assessment, sustainability, research methods, spatial analysis, building technology, and the application of appropriate analytical and digital tools.
4. Stakeholder needs and requirements are collected through document analysis, curriculum benchmarking, focus-group discussions, consultations, and questionnaire surveys. Particular attention is given to external stakeholders, including employers, academic and professional experts, alumni, professional organizations, public and private organizations, and community and cultural organizations. The findings are analyzed and synthesized into the KSEC domains before being translated into the PLOs.
5. The PLOs and CLOs are communicated to students, instructors, and relevant stakeholders through the curriculum document, program information channels, student orientation, course specifications, course syllabi, classroom explanations, and stakeholder meetings.
6. Students progressively develop the PLOs across the four-year curriculum. Foundational courses introduce essential knowledge and skills; intermediate courses emphasize application and interdisciplinary integration; and advanced courses require analysis, evaluation, justification, and independent performance through design modules, research courses, Individual Study, Preparation for Capstone Project, and Capstone Project.
7. PLO achievement is evaluated using direct evidence from course assessments, projects, reports, presentations, portfolios, Individual Study, and Capstone Project, together with indirect evidence from student feedback, graduate surveys, employer feedback, and stakeholder consultations.

8. The Curriculum Management Committee reviews PLO and CLO achievement against the established targets annually. Identified gaps are used to improve the PLOs, CLOs, curriculum mapping, course content, teaching approaches, assessment methods, and student support measures according to the PDCA cycle.

8.2 Programme Structure and Content

The program ensures that its structure and content are comprehensive, current, constructively aligned, and responsive to stakeholder needs through the following processes:

1. The program prepares comprehensive program and course specifications covering curriculum philosophy, PLOs, curriculum structure, study plan, course descriptions, CLOs, teaching and learning activities, assessment methods, admission requirements, and graduation requirements. These documents are reviewed and updated regularly and made available to students, instructors, and relevant stakeholders through the curriculum document, program website, course syllabi, student orientation, and academic advising.
2. The curriculum is designed using backward curriculum design and constructive alignment. The PLOs are translated into YLOs and CLOs, which are subsequently aligned with course content, teaching and learning activities, and assessment methods. Curriculum mapping is used to verify that all PLOs are progressively developed and assessed across the four-year curriculum.
3. Feedback from internal and external stakeholders is incorporated into curriculum design and improvement. Information is collected from faculty members, students from related programs, employers, academic and professional experts, alumni, professional organizations, public and private organizations, and community and cultural organizations through surveys, focus-group discussions, consultations, and curriculum benchmarking.
4. Each course is designed to contribute clearly to one or more PLOs through its CLOs. Instructors select course content, learning activities, assignments, and assessment methods that enable students to demonstrate the expected CLOs. Course specifications are reviewed before implementation to confirm alignment and avoid unnecessary content duplication.

5. Courses are sequenced progressively from foundational to intermediate, advanced, and integrative levels. Early courses establish knowledge and basic design, analytical, communication, and digital skills. Intermediate courses emphasize contextual application and interdisciplinary integration. Advanced courses require students to evaluate complex issues, justify decisions, and demonstrate independent performance through advanced design modules, research-related courses, Individual Study, Preparation for Capstone Project, and Capstone Project.
6. The curriculum provides flexibility through required major courses, elective major courses, general education courses, and free electives. Elective major courses allow students to develop individual areas of emphasis in architectural and built-environment design, environmental performance, digital technology, cultural heritage, spatial analysis, international learning, and related emerging fields.
7. The Curriculum Management Committee reviews the program structure and content annually using course reports, CLO and PLO achievement results, student feedback, teaching evaluations, stakeholder feedback, professional and technological developments, and curriculum benchmarking. A comprehensive curriculum review is conducted within the prescribed five-year cycle. Findings are used to revise course content, sequencing, prerequisites, elective offerings, teaching approaches, and curriculum mapping through the PDCA process.

8.3 Teaching and Learning Approach

The program designs, implements, and reviews its teaching and learning approaches to support student participation and achievement of the expected learning outcomes through the following processes:

1. Teaching and learning are guided by Kasetsart University's educational philosophy of learning through real-world experience, knowledge integration, and lifelong learning. This philosophy is communicated to instructors, students, and relevant stakeholders through the curriculum document, course specifications, student orientation, faculty meetings, and program information channels. Instructors apply the philosophy when designing course content, learning activities, assignments, and assessment methods.

2. Students are encouraged to take responsibility for their learning through topic selection, project planning, task allocation, time management, peer collaboration, self-assessment, reflection, and revision based on feedback. In advanced courses, students progressively exercise greater independence in defining problems, selecting methods, and developing project or research outcomes.
3. Active learning is implemented through studio-based, project-based, problem-based, research-based, seminar-based, field-based, and experiential learning. Activities include design exercises, case analysis, group discussions, workshops, field surveys, community engagement, simulations, presentations, critiques, peer reviews, and individual or collaborative projects.
4. Learning activities develop students' ability to learn independently and continuously. Students practise formulating questions, searching for and evaluating information, analyzing and synthesizing evidence, applying digital and research tools, testing alternatives, presenting new ideas, reflecting on performance, and improving their work through iterative learning.
5. Creativity, innovation, and entrepreneurial thinking are cultivated through creative and design thinking, interdisciplinary projects, digital experimentation, contextual problem-solving, and the development of proposals responding to environmental, social, cultural, and economic needs. Relevant courses also introduce project management, professional practice, value creation, and entrepreneurship in the built environment.
6. Instructors specify the relationships among CLOs, learning activities, and assessment methods in the course specifications. The Curriculum Management Committee reviews these relationships before course delivery and coordinates teaching approaches across courses and years of study to ensure progressive and integrated student development.
7. Teaching and learning effectiveness is evaluated through course reports, student achievement of CLOs and PLOs, teaching evaluations, student feedback, project outcomes, and feedback from employers and other external stakeholders. The results are reviewed annually and used to improve learning activities, course content, instructional methods, staff development, and professional relevance through the PDCA process.

8.4 Student Assessment

The program establishes, implements, and reviews student assessment processes to ensure alignment with the expected learning outcomes, transparency, validity, reliability, and fairness through the following processes:

1. Instructors use diverse formative and summative assessment methods appropriate to the CLOs and levels of learning. These include examinations, design projects, analytical exercises, reports, presentations, portfolios, fieldwork, research assignments, practical work, critiques, peer assessment, self-assessment, Individual Study, and Capstone Project.
2. Student assessment and grade appeal processes are implemented in accordance with Kasetsart University regulations and program procedures. Assessment criteria, grading components, submission requirements, schedules, and appeal channels are communicated to students through course specifications, syllabi, learning platforms, classroom explanations, and student orientation. The same principles are applied consistently to all students enrolled in each course.
3. The program monitors student progress from admission to graduation through course grades, accumulated credits, grade point averages, CLO achievement, academic advising records, and progression through the study plan. Graduation is verified against the approved credit requirements, curriculum structure, university regulations, and achievement requirements specified by the program.
4. Instructors prepare assessment plans containing assessment tasks, rubrics or marking schemes, scoring criteria, weightings, submission timelines, and grading procedures. Assessment tasks and criteria are reviewed to ensure that they measure the intended CLOs and provide valid, reliable, transparent, and fair evidence of student achievement.
5. CLO achievement is assessed directly through identified assessment tasks. Results from relevant CLOs are subsequently consolidated and analyzed to evaluate achievement at the YLO and PLO levels. Major integrative evidence is obtained from design modules, research-related courses, Individual Study, Preparation for Capstone Project, and Capstone Project.
6. Students receive timely and constructive feedback through written comments, rubric results, studio critiques, individual or group consultations, progress

reviews, and discussions of assessment results. Formative feedback is provided during the learning process so that students can revise their work and improve their performance before final assessment.

7. Assessment quality is reviewed through course reports, assessment results, grade distributions, CLO and PLO achievement data, student feedback, and internal verification or moderation by instructors and the Curriculum Management Committee. Identified inconsistencies or gaps are used to improve assessment tasks, rubrics, marking schemes, feedback processes, and alignment with professional expectations through the PDCA cycle.

8.5 Academic Staff

The program works with the departments, Faculty of Architecture, and Kasetsart University to ensure that academic staffing is sufficient, qualified, appropriately assigned, and continuously developed through the following processes:

1. The Curriculum Management Committee analyzes short- and long-term academic staffing requirements based on the curriculum structure, teaching load, student numbers, areas of expertise, research direction, expected retirements, contract periods, and replacement needs. Staffing plans cover recruitment, replacement, redeployment, contract renewal, academic promotion, retirement, and other personnel actions administered under faculty and university regulations.
2. Academic staff workload data are collected, reviewed, and monitored regularly. Workloads cover teaching and student supervision, research and creative work, academic service, curriculum administration, and arts and cultural preservation. The results are used to balance responsibilities, identify staffing gaps, and improve the quality of the program's academic activities.
3. Required academic staff competencies are defined according to curriculum needs and university requirements. They include disciplinary knowledge, teaching and assessment competence, research and professional expertise, digital capability, English and intercultural communication, ethical conduct, and the ability to support outcome-based education. These expectations are communicated through appointment processes, workload assignments, meetings, staff development plans, and performance evaluations.

4. Teaching, advising, supervision, research, and administrative responsibilities are assigned according to each staff member's qualifications, academic position, professional experience, expertise, academic works, and current workload. The Curriculum Management Committee verifies that every required and elective course is assigned to an appropriately qualified instructor.
5. Academic advancement, salary increases, contract renewal, performance recognition, and other rewards are administered according to the university's merit system. Performance is considered across teaching, research and creative work, academic service, curriculum administration, and contributions to arts and cultural preservation.
6. Academic staff are informed of their rights, benefits, roles, responsibilities, reporting relationships, workloads, professional and academic ethics, and academic freedom through university regulations, employment conditions, faculty announcements, appointment orders, orientation, and meetings.
7. Staff development needs are identified through performance evaluations, teaching evaluations, curriculum requirements, individual development plans, changes in professional practice, and developments in technology and educational methods. The Faculty and program support appropriate activities such as training in outcome-based education, assessment, digital tools, English-medium instruction, research, professional practice, academic leadership, and international collaboration.
8. Academic staff performance is monitored through workload records, teaching evaluations, CLO and PLO achievement, research and creative outputs, academic service, professional development, and curriculum contributions. The results are used for performance management, recognition, development planning, teaching improvement, and research support through the PDCA cycle.

8.6 Student Support Services

The program coordinates with the Faculty of Architecture and relevant university units to provide academic and non-academic support throughout the student life cycle through the following processes:

1. Admission policies, eligibility requirements, selection criteria, required documents, application procedures, timelines, fees, and available places are reviewed and updated before each admission cycle. The information is

communicated through official university and faculty websites, program information channels, admission announcements, open-house activities, guidance counsellors, and recruitment networks to ensure transparency and accessibility.

2. The program prepares short- and long-term student support plans based on student needs, enrollment projections, curriculum requirements, and satisfaction results. Academic support includes orientation, academic advising, course planning, language and digital-skills development, research support, learning resources, and career preparation. Non-academic support includes health and well-being services, financial guidance, scholarships, international student support, counselling, student activities, and complaint management.
3. Student progress, academic results, accumulated credits, workload, attendance where applicable, and progression through the study plan are recorded and monitored through university information systems and academic advising. Advisors and the Curriculum Management Committee use these data to identify students at academic risk, provide appropriate advice, develop improvement plans, and coordinate timely support with relevant faculty or university units.
4. The program provides required co-curricular student-development activities together with opportunities to participate in design competitions, workshops, exhibitions, academic conferences, community-based projects, international activities, study visits, research projects, and professional networking. These activities broaden students' learning experiences, develop generic and professional competencies, and enhance employability and career readiness.
5. Competencies required of support staff are defined according to their responsibilities and incorporated into recruitment, appointment, deployment, and performance evaluation processes. Relevant competencies include student service, academic administration, communication, digital systems, English and intercultural communication, problem-solving, confidentiality, and service ethics. Roles and reporting relationships are communicated clearly to ensure coordinated and continuous service delivery.
6. The quality and adequacy of student support services are evaluated through student satisfaction surveys, service records, complaint and response data, academic progression, retention, participation in activities, and feedback from

students and staff. Results are compared over time and, where appropriate, benchmarked against other programs or university targets. Findings are used to improve support plans, staffing, service processes, communication channels, and resource allocation through the PDCA cycle.

8.7 Facilities and Infrastructure

The program coordinates with the Faculty of Architecture and relevant university units to ensure that facilities, equipment, information technology, and learning environments are adequate, accessible, safe, and appropriate for achieving the expected learning outcomes through the following processes:

1. Requirements for classrooms, design studios, seminar rooms, field equipment, teaching materials, computer hardware, software, and information technology are identified from the curriculum structure, course specifications, learning activities, student numbers, and instructor feedback. Their availability and readiness are reviewed before each semester.
2. Laboratories, studios, computer facilities, and specialist equipment are provided and maintained according to teaching, research, and professional requirements. Usage schedules, operating procedures, maintenance records, and responsible personnel are established to promote effective, safe, and efficient use.
3. Students and staff have access to university library services, electronic databases, e-books, academic journals, digital repositories, online learning resources, and information-search support. Library resources are reviewed and developed in response to curriculum requirements, research needs, technological developments, and user feedback.
4. Information systems are provided or developed to support registration, academic records, advising, course management, online learning, assessment, communication, research, and administration. The program collects feedback from students and staff to identify system limitations and communicate development needs to the responsible university units.
5. The university provides computer and network infrastructure, internet access, institutional user accounts, learning platforms, licensed software where available, data-storage services, and technical support. These resources support teaching and learning, research, academic service, arts and cultural preservation, and curriculum administration.

6. Facilities are managed in accordance with relevant environmental, health, safety, emergency, and accessibility requirements. The Faculty reviews issues such as lighting, ventilation, indoor environmental quality, fire safety, evacuation, equipment safety, waste management, and access for persons with disabilities or other special needs.
7. The university and Faculty provide physical, social, and psychological environments that support learning, research, collaboration, health, and personal well-being. These include appropriate learning and working spaces, common areas, health and counselling services, security arrangements, and channels for reporting facility or safety concerns.
8. Competencies required of laboratory, information technology, library, facility, and other support personnel are identified according to their responsibilities. Staff performance and development needs are evaluated to ensure that services remain responsive to teaching requirements and stakeholder needs.
9. The adequacy and quality of facilities and infrastructure are evaluated through usage data, maintenance and incident records, readiness inspections, student and staff satisfaction surveys, course reports, and stakeholder feedback. Results are reviewed against program requirements and university targets and used to improve facilities, equipment, digital resources, support services, maintenance plans, and budget priorities through the PDCA cycle.

8.8 Output and Outcomes

The program establishes a systematic process for collecting, analyzing, monitoring, and using output and outcome data to evaluate program effectiveness and support continuous quality improvement through the following processes:

1. The program records and analyzes student progression, retention, graduation, dropout, and average time-to-degree data for each cohort. Results are compared across academic years, program targets, and relevant institutional benchmarks to identify trends, determine causes of delayed completion or withdrawal, and improve advising, teaching, curriculum structure, and student support.
2. Graduate destination data are collected after graduation, covering employment, self-employment, entrepreneurship, further study, time taken to obtain employment, types of organizations, job relevance, and income where appropriate. Results are analyzed and compared with university targets and

relevant programs to improve curriculum content, career preparation, professional networks, and employability support.

3. The program maintains records of research, creative work, innovation, academic service, competitions, exhibitions, publications, presentations, and other activities undertaken by academic staff and students. These outputs are analyzed annually to monitor academic productivity, student participation, curriculum integration, and contribution to society and professional practice.
4. Achievement of the Programme Outcomes, particularly the PLOs, is monitored using direct evidence from CLO and PLO assessment, design and research projects, portfolios, Individual Study, Capstone Project, and graduation requirements. Indirect evidence from graduate surveys, employer feedback, alumni feedback, and stakeholder consultations is used to confirm the relevance and effectiveness of the achieved outcomes.
5. Satisfaction data are collected from relevant stakeholder groups, including current students, graduates, academic staff, employers, professional experts, and organizations collaborating with the program. Results are analyzed separately by stakeholder group and compared across academic years, university targets, and relevant benchmarks.
6. The Curriculum Management Committee reviews output and outcome data annually against established targets. Identified gaps, trends, and good practices are used to improve curriculum design, teaching and assessment, student support, academic staff development, facilities, research activities, stakeholder engagement, and resource allocation through the PDCA cycle. As this is a new program, baseline data and targets will be established from the first admitted cohort and updated as graduate and longitudinal data become available.

8.9 Performance Indicators

Key Performance Indicators	Academic Year				
	2027	2028	2029	2030	2031
1. Course syllabi must be prepared for all subjects before the beginning of each semester.	✓	✓	✓	✓	✓
2. Reports on learning outcomes at the course level and field experience (if any) must be completed for all subjects within 30 days after the semester ends.	✓	✓	✓	✓	✓
3. An annual program performance report must be produced, including data on the development of student learning outcomes, within 60 days after the end of the academic year.	✓	✓	✓	✓	✓
4. Verification of teaching and learning processes must be conducted for courses impacting learning outcomes at the year or program level, with feedback provided to students.	✓	✓	✓	✓	✓
5. Teaching strategies, learning activities, or assessment methods must be improved or revised based on verification or performance results from the previous academic year, with committee approval.	✓	✓	✓	✓	✓
6. All instructors, especially newly appointed ones, must be oriented to understand the program's objectives and expected learning outcomes.	✓	✓	✓	✓	✓
7. All full-time Curriculum faculty members must receive at least one academic and/or professional development opportunity per year related to their field or instructional techniques.	✓	✓	✓	✓	✓
8. All support personnel directly contributing to student learning (if any) must receive academic and/or professional development under their respective departments.	✓	✓	✓	✓	✓
9. The satisfaction level of final-year students or recent graduates regarding overall program management must average no less than 3.5 out of 5.0.				✓	✓
10. The satisfaction level of employers regarding new graduates must average no less than 3.5 out of 5.0.					✓

9. Systems and Mechanisms for Curriculum Development and Quality Management

The Curriculum implements an internal quality assurance system at the program level in accordance with the AUN-QA framework. The curriculum is administered in compliance with officially announced higher education curriculum standards and relevant qualification frameworks throughout the entire period of implementation. A Curriculum development and quality management committee, consisting of faculty members responsible for the curriculum, core program faculty, and course instructors, is formally appointed to oversee curriculum planning, implementation, monitoring, and continuous improvement. Through this mechanism, the Curriculum establishes clear systems and procedures to ensure academic quality, relevance, and alignment with intended learning outcomes, professional standards, and stakeholder expectations.

9.1 Systems and Mechanisms for Curriculum Development

9.1.1 Curriculum Design, Control, and Oversight of Course Content

The design of the Curriculum is guided by the principles of outcome-based education and Backward Curriculum Design, ensuring alignment between Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), learning activities, and assessment methods. The curriculum development process begins with an analysis of stakeholder needs, including students, alumni, employers, professional practitioners, and academic experts in architecture and the built environment.

The Curriculum development committee systematically defines and reviews PLOs to reflect contemporary architectural practice, environmental sustainability, ethical responsibility, digital competency, and lifelong learning. These outcomes are then translated into CLOs for each course, ensuring vertical and horizontal alignment across the curriculum structure. To support effective curriculum control and modernization, the program applies the following quality management components:

1. **Quality Planning (QP):**

   The Curriculum identifies target learner groups and surveys stakeholder expectations to define learning outcomes and performance indicators. Curriculum structure, course sequencing, learning activities, and assessment strategies are planned to ensure achievement of program objectives and alignment with professional and societal needs.

2. **Quality Maintenance (QM):**

   The Curriculum monitors instructor qualifications, teaching competencies, and resource readiness. Potential risks, such as misalignment between course content and learning outcomes or gaps in instructional capacity, are identified and addressed through corrective measures, including faculty development and course revision.

3. **Quality Control (QC):**

   Clear control points are established through course syllabi approval, teaching plans, learning outcome mapping, and semester-based monitoring. Teaching and learning processes are reviewed to detect deviations from planned outcomes, enabling timely adjustments to maintain academic standards.

4. **Quality Improvement (QI):**

   Learning outcomes, teaching evaluations, and stakeholder feedback are continuously analyzed to identify areas for improvement. Findings are used to revise courses, update teaching strategies, improve assessment methods, and enhance curriculum relevance, ensuring continuous improvement in program quality.

9.1.2 Instructor Assignment and Teaching Process Management

The Curriculum has established a structured system for assigning instructors to courses based on academic qualifications, professional expertise, and teaching experience in architecture and the built environment. Course instructors may include core faculty members, specialized faculty, or external professionals where appropriate to enrich learning experiences.

Prior to each academic year, the Curriculum committee reviews teaching assignments and organizes coordination meetings among instructors. Course instructors are required to prepare detailed course syllabi, teaching plans, learning activities, and assessment methods aligned with CLOs and PLOs. These are communicated clearly to students at the beginning of each semester.

Teaching performance is evaluated through multiple mechanisms, including student course evaluations, peer observation (where applicable), and review by the Curriculum committee. Evaluation results are analyzed and used to refine teaching strategies, instructional materials, and course delivery in subsequent academic years.

9.1.3 Student Assessment and Assurance of Authentic Evaluation Methods

The Curriculum applies authentic and diverse assessment methods to evaluate student learning and professional development. Assessment strategies are designed to reflect real-world architectural practice and include project-based assessments, design studios, analytical reports, presentations, fieldwork evaluations, portfolios, and reflective learning activities.

Assessment data are collected through instructor evaluation, student self-assessment, peer assessment, and, where appropriate, external expert review. These multiple sources provide triangulated evidence of student achievement and learning progression. Faculty members responsible for the Curriculum and core faculty jointly verify student achievement of learning outcomes through the following processes:

1. Collaborative planning of learning activities and assessments aligned with PLOs and CLOs
2. Supervision and review of teaching and assessment practices across courses
3. Analysis of student performance data and learning artifacts
4. Review of student feedback and course evaluation results
5. Annual Curriculum committee meetings to review learning outcomes and propose improvements to courses, teaching strategies, and assessment methods

These processes ensure that assessment practices remain valid, reliable, and aligned with intended learning outcomes.

9.2 Quality Management Plan

The Curriculum establishes a clear quality management goal: all graduates must achieve the Program Learning Outcomes upon completion of the program. To achieve this goal, a quality management plan is embedded throughout the curriculum lifecycle, integrating planning, implementation, monitoring, evaluation, and continuous improvement. The quality management plan follows the PDCA (Plan–Do–Check–Act) cycle:

1. **Plan:** Define learning outcomes, curriculum structure, teaching strategies, and assessment plans
2. **Do:** Implement teaching, learning activities, and assessments according to the curriculum design

3. **Check:** Evaluate student learning outcomes, teaching effectiveness, and stakeholder satisfaction
4. **Act:** Use evaluation results to improve curriculum design, teaching practices, and assessment methods

This systematic approach ensures that curriculum development and quality management remain dynamic, evidence-based, and responsive to academic, professional, and societal changes.

Educational Process	Quality Planning	Risks and Management	Quality Control Points
Curriculum and course content design	The curriculum is designed using the Backward Curriculum Design approach. Stakeholder needs, international academic and professional standards, national qualification frameworks, and the needs of Thai and international students are used to define the Program Learning Outcomes (PLOs). Course Learning Outcomes (CLOs), course content, learning activities, and assessment methods are systematically aligned with the PLOs. Course information and essential curriculum documents are prepared in English to ensure accessibility for international students and instructors.	**Risks:** Course content or learning outcomes may become outdated or may not adequately reflect international standards, multicultural contexts, or the needs of international students. Curriculum regulations, forms, and supporting information issued by the university, faculty, or department may be available only in Thai or may not be suitable for an international program. **Risk Management:** The curriculum is reviewed periodically with input from international academic partners, professional experts, employers, students, and other stakeholders. The program prepares English versions or explanatory guidance for essential documents that are unavailable in English and coordinates with the university, faculty, and department to improve procedures affecting the international program.	1) Verification of alignment among PLOs, CLOs, learning activities, and assessments .2) Review of course syllabi and English-language course information. 3) Validation by academic experts, international partners, and stakeholders. 4) Review of feedback from Thai and international students, graduates, and employers. 5) Approval and periodic review by the curriculum, department, faculty, and university committees.
Teaching and learning process	Instructors are assigned according to their academic qualifications, subject expertise, professional experience, and	**Risks:** Instructors may have different levels of English proficiency or experience in teaching international and	1) Review of English-language syllabi, teaching plans, materials,

Educational Process	Quality Planning	Risks and Management	Quality Control Points
	ability to teach in English and multicultural learning environments. Teaching strategies emphasize active learning, project-based learning, studio-based learning, field-based learning, and real-world problem-solving. Course syllabi, schedules, learning materials, assessment requirements, and essential administrative information are communicated in English before or at the beginning of each semester. Academic orientation and ongoing support are provided to international students.	culturally diverse groups. Teaching materials, announcements, digital systems, institutional forms, safety instructions, or fieldwork information may be available only in Thai. International students may face difficulties in understanding academic expectations, communicating with local communities, participating in field activities, or accessing university services. Central university, faculty, departmental, or program procedures may not be sufficiently flexible or timely for an international curriculum. **Risk Management:** The program provides English-language templates, course information, teaching materials, and practical guidance for instructors and students. Faculty development is organized in English-medium instruction, intercultural teaching, OBE, inclusive learning, and instructional technology. Bilingual assistance, orientation, academic advising, peer support, and translation or interpretation are arranged when required. The program appoints responsible coordinators and maintains communication channels with relevant university, faculty, and departmental offices to resolve academic and administrative issues affecting international students.	schedules, and assessment instructions. 2) Verification of instructor qualifications and readiness for English-medium and intercultural teaching. 3) Student course and instructor evaluations, with separate monitoring of feedback from international students. 4) Monitoring of attendance, participation, academic performance, and learning progression of Thai and international students. 5) Records of academic advising, student support, complaints, and response time. 6) Review of the accessibility of announcements, forms, fieldwork instructions, and digital systems in English. 7) Curriculum committee review of teaching implementation each semester.
Measurement and assessment of	Each course defines assessment methods aligned with its CLOs and relevant PLOs. Authentic	**Risks:** Assessment criteria or instructions may be unclear to international students or may be	1) Verification of alignment among

Educational Process	Quality Planning	Risks and Management	Quality Control Points
learning outcomes	and diverse assessment methods include design projects, portfolios, presentations, reports, examinations, fieldwork, and reflective learning. Assessment criteria, rubrics, submission procedures, and feedback are provided in English and communicated to students in advance. Assessment methods consider different educational and cultural backgrounds while maintaining consistent academic standards.	communicated inconsistently across courses. Language ability may unintentionally affect the assessment of disciplinary knowledge. Assessment evidence may be incomplete, inconsistent, or misaligned with learning outcomes. **Risk Management:** The curriculum committee reviews English-language assessment instructions and rubrics. Assessment evidence is verified through instructor review, peer moderation, sampling of student work, and comparison across courses. Reasonable academic support is provided without lowering the required learning outcomes or academic standards.	assessment tasks, CLOs, and PLOs. 2) Review of English-language assessment criteria and rubrics. 3) Moderation and triangulation of assessment evidence. 4) Review of grading consistency and reliability. 5) Comparison of achievement and progression among student groups. 6) Student feedback on the clarity and fairness of assessment. 7) Number of students achieving the learning outcomes and graduating within the expected period.
Faculty management and development	Faculty workload and staffing plans are developed to maintain appropriate faculty-to-student ratios and ensure adequate coverage of all curriculum areas. Recruitment and assignment consider academic expertise, English proficiency, international experience, intercultural competence, advising ability, and availability for studio, fieldwork, and project supervision. Faculty members are supported in developing academic, professional, instructional, digital, and international competencies through training, research,	**Risks:** There may be an insufficient number of qualified instructors who can teach specialized subjects in English. Workloads may be uneven because international teaching, translation, advising, coordination with overseas partners, and support for international students require additional time that may not be recognized in the standard workload system. Recruitment, appointment, contracting, payment, visa, and work-permit procedures for international instructors may be delayed by university, faculty, or departmental regulations. Some administrative information and	1) Annual review of faculty qualifications, English proficiency, expertise, and workload. 2) Faculty-to-student ratio and coverage of required disciplinary areas. 3) Availability of qualified instructors and supervisors for all courses. 4) Results of teaching evaluations, including feedback from international students. 5) Participation in English-medium instruction, intercultural

Educational Process	Quality Planning	Risks and Management	Quality Control Points
	international collaboration, conferences, and professional engagement.	forms may be available only in Thai. **Risk Management:** The program conducts annual workforce and workload planning and identifies staffing gaps in advance. A pool of qualified internal, adjunct, visiting, and international instructors is maintained. Work related to English-medium teaching, international coordination, and student support is included in workload planning where possible. The program provides English guidance and administrative assistance for international instructors and coordinates with relevant offices concerning appointments, contracts, payments, visas, and work permits. Mentoring and faculty development are provided for new and existing instructors.	teaching, OBE, digital learning, and professional development. 6) Timeliness of recruitment, appointment, contracting, payment, visa, and work-permit processes. 7) Review of mentoring, academic advising, and international coordination responsibilities.
Learning resource management	Studios, laboratories, digital tools, specialist software, libraries, online databases, learning platforms, fieldwork facilities, and student support services are planned and managed to support an English-medium international curriculum. Resource planning considers access for international students, English-language interfaces and instructions, software licensing, equipment compatibility, accessibility, safety, and off-campus learning. Needs assessments are conducted	**Risks:** Budget limitations, procurement delays, licensing restrictions, or institutional procedures may prevent timely access to essential equipment, software, databases, and learning spaces. University systems, library services, laboratory instructions, safety information, booking systems, or technical support may be available mainly in Thai. International students may have difficulty accessing accounts, software licences, payment systems, health and safety information, accommodation support, transportation information, or fieldwork services.	1) Annual budget allocation and procurement schedule for learning resources. 2) Inventory and adequacy review of studios, laboratories, equipment, software, databases, and learning spaces. 3) Verification that essential systems, instructions, safety information, and student services are accessible in English.4) Monitoring of software licensing, account access, system

Educational Process	Quality Planning	Risks and Management	Quality Control Points
	regularly with input from students and instructors.	Resources managed centrally by the university, faculty, or department may not fully accommodate the timetable and requirements of the international program. **Risk Management:** Resource needs are identified and submitted before each academic year. Procurement is prioritized according to its impact on learning outcomes and international student access. English instructions, orientation materials, quick guides, and technical support are prepared when official English information is unavailable. The program coordinates with central university, faculty, departmental, library, information technology, laboratory, and student service units to improve access. Shared resources, educational licences, open-source tools, partner facilities, and contingency arrangements are used when procurement or access is delayed.	availability, and technical support response time. 5) Student and faculty satisfaction with learning resources, with specific feedback from international students. 6) Review of accessibility, safety, utilization, and effectiveness of learning resources. 7) Records of resource-related problems, responsible units, corrective actions, and completion time.

This systematic approach ensures that curriculum development and quality management remain dynamic, evidence-based, internationally accessible, and responsive to academic, professional, societal, and intercultural changes. It also supports coordinated action across the university, faculty, department, and program to ensure that international students and instructors can access essential academic information, services, and learning resources in English.

Appendices

Appendix 1

Table of Course Learning Outcomes (CLOs)

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Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
Required major courses						
01204111 Computer and Programming	1) Explain the basic structure of modern computer systems and data representation in computers.		✓			
	2) Design algorithms to solve problems systematically and efficiently.		✓			
	3) Write introductory programs in a high-level programming language by applying principles of program design and development.		✓			
	4) Solve programming problems through hands-on practice using computers.		✓			
01204162 Applied AI for Engineering	1) Explain the fundamental principles of artificial intelligence.		✓			
	2) Explain the principles of various artificial intelligence techniques and analyze their strengths and limitations.		✓			
	3) Select appropriate artificial intelligence technologies to solve engineering problems.		✓			
01240385 Cultural Heritage Theory	1) Students can explain an overview of cultural heritage theory and related policies, including methods and processes for the conservation	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	of architectural and urban heritage.					
	2) Students can apply knowledge, methods, and processes of cultural heritage conservation and protection to self-directed study topics.		✓			
01243111 Foundations of Architecture and Environment	1) Explain fundamental principles of architecture and built environment.	✓				
	2) Identify relationships between space, people, and environment.	✓				
	3) Apply basic concepts to simple design exercises.		✓			
01243112 Creative and Design Thinking Theory	1) Explain fundamental principles of creativity and design thinking in built environment contexts.	✓				
	2) Apply design thinking processes to define built environment problems.		✓			
	3) Generate creative concepts for defined user needs and contextual conditions.		✓			
01243113 Culture and History of Built Environment	1) Explain major historical periods and cultural contexts of the built environment.	✓				
	2) Analyze relationships among culture, society, and the built environment.	✓				
	3) Compare built environment precedents across diverse cultural, regional, and international contexts.				✓	

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
01243121 Design Module I : Form and Space	1) Develop basic spatial compositions through form, proportion, and scale.		✓			
	2) Apply fundamental design principles in guided studio exercises.		✓			
	3) Communicate spatial ideas through drawings and models.			✓		
01243122 Design Module II : Narrative, People and Place	1) Analyze social and cultural contexts of design sites.	✓				
	2) Compare spatial narratives across diverse cultural groups.				✓	
	3) Develop design concepts from narratives and user needs.		✓			
	4) Communicate design proposals through appropriate visual and verbal media.			✓		
01243141 Nature of Materials and Structure	1) Explain fundamental properties of building materials and structural systems.	✓				
	2) Evaluate material performance against environmental and structural requirements.		✓			
	3) Select appropriate materials and structural concepts for defined design tasks.		✓			
01243151 Visual Communication and Technical Drawing	1) Produce visual and technical drawings according to fundamental representation standards.		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	2) Apply architectural graphic conventions in defined drawing exercises.		✓			
	3) Communicate spatial and design information through appropriate visual media.			✓		
01243152 Digital Tools I : Computer-Aided Design and Visualization	1) Use computer-aided design tools for basic architectural drafting.		✓			
	2) Create digital models and visualizations for defined design tasks.		✓			
	3) Communicate design ideas through appropriate digital media.			✓		
01243221 Design Module III : Community and Context	1) Analyze community needs and spatial contexts.	✓				
	2) Develop context-responsive design proposals for defined community needs.		✓			
	3) Communicate context-sensitive design solutions through appropriate visual and oral media.			✓		
	4) Apply ethical and culturally sensitive principles in community engagement.				✓	
01243222 Design Module IV : Systems and Networks	1) Analyze interrelationships among spatial, environmental, and infrastructural systems.	✓				
	2) Apply systems thinking in multi-scale design investigations.		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	3) Develop network-based spatial strategies for defined contexts.		✓			
	4) Communicate system relationships through analytical maps and diagrams.			✓		
01243232 Human-Centered Design for Well-Being	1) Analyze relationships between spatial conditions and user well-being.	✓				
	2) Apply human-centered design principles to defined built environment problems.		✓			
	3) Evaluate design proposals according to inclusive well-being criteria for diverse user groups.				✓	
01243241 Building Technology and Sustainable Materials	1) Explain relationships among building components, construction systems, and material properties..	✓				
	2) Evaluate the technical and environmental performance of materials against life-cycle criteria.		✓			
	3) Select sustainable materials for defined building applications.		✓			
	4) Communicate building technology decisions through technical documentation.			✓		
01243242 Healthy Building Performance and Design	1) Analyze relationships between indoor environmental factors and occupant health.	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	2) Apply healthy building principles to define design problems.		✓			
	3) Evaluate indoor environmental quality against international performance standards.				✓	
	4) Communicate building performance findings through technical reports and visual media.			✓		
01243251 Architecture and Built Environment Documentation	1) Apply manual and digital documentation tools in field recording tasks.		✓			
	2) Produce accurate architectural drawings and documentation records.		✓			
	3) Interpret relationships between historical records and existing physical conditions.	✓				
	4) Communicate built environment information through appropriate representational media.			✓		
01243252 Digital Tools II : BIM and Parametric Design	1) Develop BIM models for building projects.		✓			
	2) Use parametric design tools for design option generation.		✓			
	3) Integrate information-based workflows into design processes.		✓			
	4) Communicate coordinated design information through BIM documentation and digital visualizations.			✓		

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	5) Collaborate within shared BIM environments.					✓
01243291 Design and Environmental Research Methods	1) Explain fundamental research methods in design and built environment studies.	✓				
	2) Apply appropriate data collection methods in guided research exercises.		✓			
	3) Analyze qualitative and quantitative data from defined research problems.	✓				
	4) Prepare basic research proposals for built environment studies.			✓		
01243321 Design Module V : Contextual and Regenerative Design Strategies	1) Analyze environmental and cultural systems within defined design contexts.	✓				
	2) Develop regenerative design strategies for complex spatial challenges.		✓			
	3) Communicate integrated design proposals through professional visual and oral media.			✓		
	4) Evaluate regenerative design decisions against ethical, cultural, environmental, and internationally recognized principles.				✓	
01243322 Design Module VI : Integration and Impact	1) Analyze complex-built environment conditions using multidisciplinary knowledge.	✓				
	2) Develop comprehensive design proposals using		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	appropriate analytical and digital tools.					
	3) Communicate integrated design outcomes through professional visual, written, and oral media.			✓		
	4) Evaluate design impacts against ethical, social, cultural, environmental, and internationally recognized principles.				✓	
	5) Manage an integrated design process through responsible and self-directed practice.					✓
01243331 Nature by Design	1) Explain ecological principles relevant to landscape design.	✓				
	2) Analyze natural and cultural characteristics of defined sites.	✓				
	3) Develop basic landscape design proposals responding to site conditions.		✓			
	3) Communicate landscape concepts through appropriate visual media.			✓		
01243351 Spatial Analysis and Mapping Methods	1) Analyze spatial relationships among environmental, social, cultural, and built conditions.	✓				
	2) Use geographic information systems and mapping tools for defined spatial investigations.		✓			
	3) Interpret spatial patterns from multiple data sources.	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	4) Communicate spatial findings through appropriate maps and visual media.			✓		
01243352 Impact Assessment and Policy	1) Explain principles of environmental, social, cultural heritage, health, and economic impact assessment.	✓				
	2) Apply impact assessment methods to defined built environment projects.		✓			
	3) Communicate impact assessment findings through professional reports and visual media.			✓		
	4) Evaluate built environment projects against ethical, policy, regulatory, and internationally recognized principles.				✓	
	5) Justify mitigation strategies based on impact assessment evidence.				✓	
01243461 Management and Entrepreneurship in Built Environment	1) Analyze the feasibility of built environment initiatives within social, environmental, and economic conditions.	✓				
	2) Apply financial, organizational, and project-planning tools to defined built environment initiatives.		✓			
	3) Communicate business or project proposals to relevant clients, partners, and stakeholders.			✓		
	4) Evaluate management and entrepreneurial decisions				✓	

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	against ethical, social, environmental, and internationally recognized professional principles.					
	5) Manage a team-based built environment project process responsibly.					✓
01243492 Capstone Project	1) Diagnose a complex architectural or built environment problem through contextual evidence.	✓				
	2) Develop a comprehensive design or research project through appropriate analytical, technical, and digital methods.		✓			
	3) Communicate project concepts, processes, findings, and outcomes through professional visual, written, and oral media.			✓		
	4) Evaluate project impacts against ethical, social, cultural, environmental, and internationally recognized professional principles.				✓	
	5) Justify project decisions through contextual evidence and professional standards.				✓	
	6) Manage an independent capstone project within defined time, resource, and academic requirements.					✓
01243493	1) Analyze relationships between global challenges	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
International Seminar on Regenerative Futures and Global Perspectives	and local built environment conditions.					
	2) Communicate critical perspectives on regenerative futures in an international academic setting.			✓		
	3) Evaluate local built environment proposals against diverse international perspectives and regenerative principles.				✓	
	4) Reflect on international feedback relevant to capstone project development.					✓
Elective Major Courses						
01204261 Introduction to Linear Algebra for Applied AI	1) Represent data and problems in AI applications using vectors, matrices, or systems of linear equations.		✓			
	2) Solve problems in AI applications using matrix operations and basic methods for solving systems of linear equations.		✓			
	3) Identify and interpret whether systems of linear equations arising from AI applications have a unique solution, no solution, or multiple solutions.		✓			
01204262 Introduction to Optimization for Applied AI	1) Formulate problems in AI applications as optimization problems by identifying the objective function and relevant decision variables.	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	2) Solve basic optimization problems related to training or tuning AI models.		✓			
01204263 Introduction to Statistics for Applied AI	1) Calculate and interpret basic statistical measures from data used in AI applications.		✓			
	2) Calculate confidence intervals for data-based estimates to support the evaluation of AI applications.		✓			
	3) Design basic experiments and select appropriate evaluation methods for AI applications.		✓			
01204264 Introduction to Data Structures and Algorithms for Applied AI	1) Analyze the time complexity of algorithms that use fundamental data structures in the context of AI applications.		✓			
	2) Select or design fundamental data structures for introductory AI problems and applications.		✓			
01204265 Introduction to Application Software Development for Applied AI	1) Explain the steps involved in developing applications for applied AI tasks.		✓			
	2) Develop simple applications that use database systems.		✓			
	3) Use fundamental application-development tools.		✓			
01204266 Introduction to Data Analysis for Applied AI	1) Perform basic data analysis and present the findings through data visualizations for applied AI problems.		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	2) Use appropriate tools to analyze and visualize data for applied AI tasks.			✓		
01243332 Design for One Health and Well-Being Studio	1) Analyze interrelationships among human, animal, and ecosystem health within defined spatial contexts.	✓				
	2) Develop integrated design proposals based on One Health principles.		✓			
	3) Communicate One Health design proposals through professional visual and oral media.			✓		
	4) Evaluate design decisions against ethical, environmental, and internationally recognized One Health principles.				✓	
	5) Collaborate with diverse stakeholders in interdisciplinary design processes.					✓
01243333 Future Society Innovation Studio	1) Analyze emerging social, technological, environmental, and spatial challenges.	✓				
	2) Develop innovative design proposals for alternative future scenarios.		✓			
	3) Communicate future-oriented design proposals through appropriate visual, written, and oral media.			✓		
	4) Evaluate future design proposals against ethical, social, cultural, environmental,				✓	

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	and internationally recognized principles.					
	5) Collaborate with diverse stakeholders in interdisciplinary design processes.					✓
01243334 Transdisciplinary Design	1) Analyze complex built environment problems from multiple disciplinary perspectives.	✓				
	2) Integrate academic, professional, and local knowledge into contextual design proposals.		✓			
	3) Communicate transdisciplinary design proposals across academic, professional, and community contexts.			✓		
	4) Evaluate design proposals against ethical, cultural, environmental, and internationally recognized principles.				✓	
	5) Collaborate with diverse stakeholders in transdisciplinary design processes.					✓
01243341 Energy and Environmental Modeling for High-Performance Design	1) Explain principles of building energy and environmental simulation.	✓				
	2) Analyze relationships between building design parameters and environmental performance.	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	3) Use digital simulation tools for defined building performance studies.		✓			
	4) Apply simulation results in high-performance design decisions.		✓			
	5) Communicate building performance findings through technical reports and visual media.			✓		
01243342 Low Carbon Building	1) Explain principles of embodied and operational carbon in buildings.	✓				
	2) Calculate building life-cycle carbon emissions using appropriate assessment tools.		✓			
	3) Develop low-carbon strategies for defined building projects.		✓			
	4) Communicate carbon assessment findings through technical reports and visual media.			✓		
	5) Evaluate design alternatives against national and international carbon-reduction targets.				✓	
01243343 Sustainable Building, Construction and Operation	1) Explain sustainability principles across the building life cycle.	✓				
	2) Assess resource use, waste, and operational performance in defined building projects.		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	3) Apply sustainability strategies in building construction and operations.		✓			
	4) Communicate sustainable construction and operational plans through technical documentation.			✓		
	5) Evaluate building practices against ethical, environmental, and internationally recognized sustainability standards.				✓	
01243371 Dialogue on global and contemporary challenges in Heritage Studies	1) Explain major contemporary challenges within theoretical and policy frameworks in heritage studies.	✓				
	2) Analyze impacts of contemporary challenges on cultural, social, and environmental heritage systems.	✓				
	3) Compare heritage responses across diverse cultural, regional, and international contexts.				✓	
	4) Evaluate heritage policies and practices against ethical principles and international frameworks.				✓	
	5) Communicate critical positions on contemporary heritage issues through appropriate academic media.			✓		
01243372	1) Analyze heritage values, building conditions, and	✓				

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
Adaptive Reuse of Built Heritage	contextual constraints of built heritage.					
	2) Develop adaptive reuse proposals for defined built heritage contexts.		✓			
	3) Communicate adaptive reuse proposals through appropriate visual, written, and oral media.			✓		
	4) Evaluate adaptive reuse interventions against ethical principles, cultural significance, and international conservation standards.				✓	
	5) Collaborate with relevant stakeholders in adaptive reuse processes.					✓
01243373 Riverine Settlements and Water Heritage Landscapes	1) Analyze relationships among water systems, settlement patterns, livelihoods, cultural practices, and built forms.	✓				
	2) Apply spatial, historical, and participatory methods in defined riverine landscape investigations.		✓			
	3) Communicate riverine heritage findings through appropriate maps, reports, and visual media.			✓		
	4) Evaluate riverine development proposals against ethical, cultural, environmental, and				✓	

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	internationally recognized heritage principles.					
	5) Collaborate with riverine communities and relevant stakeholders in field-based learning processes.					✓
01243374 Heritage Ecosystems : People, Nature and Culture Linkage	1) Analyze relationships among people, nature, culture, place, and historical processes in heritage landscapes.	✓				
	2) Apply systems mapping and cultural landscape methods in defined heritage investigations.		✓			
	3) Communicate heritage ecosystem findings through appropriate maps, reports, and visual media.			✓		
	4) Evaluate heritage management approaches against ethical, cultural, environmental, and internationally recognized principles.				✓	
	5) Collaborate with communities and relevant stakeholders in heritage ecosystem investigations.					✓
01243391 Cross-cultural Workshop in Architecture and Built Environment	1) Analyze social, cultural, environmental, and spatial conditions within cross-cultural contexts.	✓				
	2) Develop context-responsive design proposals through		✓			

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	cross-cultural workshop processes.					
	3) Communicate workshop processes and outcomes in international academic and professional settings.			✓		
	4) Evaluate design approaches across diverse cultural and international contexts.				✓	
	5) Collaborate with international and cross-disciplinary participants in workshop activities.					✓
01243392 Individual study in Heritage Ecosystem	1) Analyze relationships among heritage values, communities, landscapes, and environmental systems.	✓				
	2) Apply appropriate research, analytical, documentation, or design methods.		✓			
	3) Develop a research report, spatial analysis, management proposal, documentation record, or design project.		✓			
	4) Communicate study findings through appropriate academic and professional media.			✓		
	5) Evaluate heritage approaches against ethical, cultural, environmental, and internationally recognized principles.				✓	
	6) Manage a supervised individual study process responsibly.					✓

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
01243393 Individual study in Building Tech	1) Define a focused building technology problem for supervised investigation.	✓				
	2) Apply appropriate analytical, experimental, simulation, or technical assessment methods.		✓			
	3) Develop a technical report, prototype, simulation, or performance-based design proposal.		✓			
	4) Communicate technical findings through appropriate professional media.			✓		
	5) Manage a supervised individual study process responsibly.					✓
01243394 Individual study in Design for Well-Being	1) Analyze a defined relationship between built environment conditions and well-being.	✓				
	2) Apply appropriate human-centered, environmental, or design research methods.		✓			
	3) Develop an evidence-based research report, design proposal, guideline, or prototype.		✓			
	4) Communicate study findings through appropriate professional media.			✓		
	5) Evaluate study outcomes against ethical, inclusive, environmental, and				✓	

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	internationally recognized well-being principles.					
	6) Manage a supervised individual study process responsibly.					✓
01243396 Body of Knowledge from Overseas Studies	1) Relate knowledge gained from courses undertaken overseas to relevant principles and theories in architecture and the built environment.	✓				
	2) Present learning experiences relevant to architecture and the built environment through appropriate academic media.			✓		
	3) Collaborate effectively with people from diverse cultural backgrounds.					✓
01243398 Special Problem	1) Conduct research on topics related to their field of study		✓			
	2) Use research methods to prepare reports and presentations		✓			
01243491 Individual Study Preparation for Capstone project	1) Analyze a defined research or design problem in architecture or the built environment.	✓				
	2) Develop a structured and feasible capstone project proposal with appropriate research, analytical, and digital methods.		✓			
	3) Communicate the proposed project through professional written, visual, and oral media.			✓		

Course Code and Course Title	Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)				
		PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
	4) Evaluate the proposed project against ethical, social, cultural, environmental, and internationally recognized professional principles.				✓	
	5) Manage the preparation of an independent project within defined time and resource constraints.					✓

Appendix 2

Announcement of the Faculty of Architecture

Appointment of the Curriculum Development Committee for the Bachelor of Science Program in Architecture and Built Environment

New Curriculum, B.E. 2570 (2028)

คำสั่งคณะสถาปัตยกรรมศาสตร์

ที่ ๗๔/๒๕๖๘

เรื่อง แต่งตั้งคณะกรรมการพัฒนาหลักสูตรนานาชาติ ระดับปริญญาตรี
หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง หลักสูตรใหม่ พ.ศ.๒๕๗๐

เพื่อให้การดำเนินงานพัฒนาหลักสูตรนานาชาติ ระดับปริญญาตรี หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง หลักสูตรใหม่ พ.ศ.๒๕๗๐ ดำเนินไปด้วยความเรียบร้อย บรรลุตามวัตุประสงค์ที่ตั้งไว้ จึงขอแต่งตั้งคณะกรรมการพัฒนาหลักสูตร ดังรายนามต่อไปนี้

๑. คณบดีคณะสถาปัตยกรรมศาสตร์	ที่ปรึกษา
๒. ศ.ดร.ดาวิษี บุญธรรม	ที่ปรึกษา (ผู้ทรงคุณวุฒิภายนอก)
๓. นางสาวกุลธิดา ทรงกิตติภักดี	ทีปรึกษา (ผู้ทรงคุณวุฒิภายนอก)
๔. นาย Jenchieh Hung	ที่ปรึกษา (ผู้ทรงคุณวุฒิภายนอก)
๕. ผศ.ดร.ณรงค์ฤทธิ์ จินต์จันทรวงศ์	ผู้ทรงคุณวุฒิภายนอก
๖. ดร.ทัทยา สิริพัฒนากุล	ผู้ทรงคุณวุฒิภายนอก
๗. ผศ.ดร.ปฏิพล ยอดสุรางค์	ประธานกรรมการฯ
๘. ผศ.ฐิติวุฒิ ชัยสวัสดิ์อารี	กรรมการ
๙. ผศ.ขวัญชัย กาแก้ว	กรรมการ
๑๐.ผศ.ดร.สุปรียา หวังพัชรพล	กรรมการ
๑๑.ผศ.ดร.สายทิวา รามสูต	กรรมการ
๑๒.ดร.สุชล มัลลิกะมาลย์	กรรมการ
๑๓.ดร.ภรพัสุ ศิริคุรุรัตน์	กรรมการ
๑๔.รศ.ดร.ศนิ ลิ้มทองสกุล	กรรมการ
๑๕.ผศ.ดร.อรอำไพ สามขุนทด	กรรมการ
๑๖.ดร.กันติทัต ทับสุวรรณ	กรรมการ
๑๗.ผศ.ดร.อรช กระแสอินทร์	กรรมการและเลขานุการ

โดยมีหน้าที่กำหนดนโยบาย แนวทาง และดูแลการดำเนินงานในด้านต่างๆ ของการพัฒนาหลักสูตรนานาชาติ ระดับปริญญาตรี หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง หลักสูตรใหม่ พ.ศ.๒๕๗๐ จนสำเร็จเรียบร้อย

สั่ง ณ วันที่ ๒๙ เมษายน พ.ศ. ๒๕๖๘

(ผู้ช่วยศาสตราจารย์ ดร.ปารเมศ กำแหงฤทธิรงค์)
คณบดีคณะสถาปัตยกรรมศาสตร์

Appendix 3

Bibliographic References for Academic Works

For Faculty Members responsible for the curriculum / Curriculum Faculty Members

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Aracha Krasae-in

Doctoral Degree Completed: 2015 (B.E. 2558)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Krasae-in, A., Yodsurang, P., Sanoamuang, P., Katha, P., & Kiatthanawat, A. (2025). The study of food vendor's selling space and equipment management in urban flea markets. **International Journal of Food Design.** 10(2), 201–223. DOI: 10.1386/ijfd_00081_1 **(Scopus)**	M	1
2. Krasae-in, A., Yodsurang, P., Jiarakul, D., Suksong, K., & Kiatthanawat, A. (2025). An examination of the gastronomic landscape in riverside cities of Thailand. **International Journal of Food Design.** 10(1), 67–86. DOI: 10.1386/ijfd_00074_1 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Chanikarn Yimprayoon

Doctoral Degree Completed: 2012 (B.E. 2555)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Jirasuwanpong, P., Yimprayoon, C. 2026. Indoor air quality investigation of fresh markets in hot and humid climates: A case study in Thailand. **Journal of Architectural/Planning Research and Studies (JARS).** 23(1): Article 273445. 21 pages. DOI: 10.56261/jars.v23.273445 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Kantitut Tubsuwan

Doctoral Degree Completed: 2017 (B.E. 2560)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Ngamsiri, P., & Tubsuwan, K. (2025). Effect of three vegetations on rainwater retention in extensive green roofs: A comparative study. **Built Environment Inquiry.** 4(2): 25–42. DOI: 10.14456/bei.2025.2 **(TCI กลุ่มที่ 2)**	J	0.6
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☑ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Kuanchai Kakaew

Master's degree Completed: 2007 (B.E. 2550)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Jitanan, M., Saeng-iam, K., Wirojsakunchai, E., Kakaew, K., and Lalitpasan, U. (2024). Development of Self-Help Lifting Pads for Elderly People with Difficulty in Sitting Up. **Designs.** 8(6): Article 108. 15 pages. DOI: 10.3390/designs8060108 (SCOPUS)	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Onumpai Samkhuntod

Doctoral Degree Completed: 2018 (B.E. 2561)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Samkhuntod, O., & Chantarangkul, P. (2025). Sacred trees as sites of enlightenment and functional space. **Journal of Buddhist Arts.** 8(2): 83–97. **(TCI: กลุ่มที่ 2)**	J	0.6
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Panitat Ratanawichit

Master Degree Completed: 2002 (B.E. 2545)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Arifwidodo, S. D., Ubontip, N., Sangyuan, N., Chandrasiri, O., Ratanawichit, P., & Rueangsom, P. (2026). First-Mile Walking to Transit and Physical Activity: A Cross-Sectional Study of the MRT Pink Line Corridor in Bangkok, Thailand. **International Journal of Environmental Research and Public Health.** 23(6): Article 810. 22 pages. DOI: 10.3390/ijerph23060810 **(SCOPUS)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☑ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Patiphol Yodsurang

Doctoral Degree Completed: 2017 (B.E. 2560)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Kiatthanawat, A., Pollin, F., & Yodsurang, P. (2026). A geo-cultural analysis of the relationship between Shitalpati craftsmanship communities and murta cultivation landscapes in Bangladesh. **International Journal of Intangible Heritage.** 21: 132–145. **(SCOPUS)**	M	1
2. Yodsurang, P., Krasea-in, A., Sanoamuang, P., Kata, P., & Intrakamhang, P. (2026). Transit-oriented development and morphological patterns of flea markets in urban and peri-urban fringe: Cases from Bangkok. **International Review for Spatial Planning and Sustainable Development.** 14(3): 129–146. DOI: 10.14246/irspsd.14.3_129 **(SCOPUS)**	M	1
3. Yodsurang, P. (2026). Transforming water overflow into sustainable tourism: Community resilience in Ayutthaya's Sena trough. **Tourism Geographies.** 28(4): 973–993/20. DOI: 10.1080/14616688.2026.2687072 **(SCOPUS)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Pattaranan Takkanon

Doctoral Degree Completed: 2006 (B.E. 2549)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. วรทัต หงส์วาณิชวงศ์, และ ภัทรนันท์ ทักขนนท์. (2569). การศึกษาความเหมาะสมในการติดตั้งกังหันลมผลิตไฟฟ้า มหาวิทยาลัยมหิดล ศาลายา, 586-586. ใน **การประชุมวิชาการมหาวิทยาลัยนวมินทราธิราช (IMD Symposium 2026).** กรุงเทพมหานคร. 13 มีนาคม 2569. **(มหาวิทยาลัยนวมินทราธิราช วิทยาลัยพัฒนาชุมชนเมือง มหาวิทยาลัยศรีปทุม สมาคมนักวิจัยแห่งประเทศไทย มหาวิทยาลัยสวนดุสิต สมาคมเครือข่ายส่งเสริมการวิจัยทางมนุษยศาสตร์และสังคมศาสตร์ สถาบันรัชต์ภาคย์ และมูลนิธิธรรมาภิวัตน์ / จัดต่อเนื่องเป็นปีที่ 5)**	K	0.2
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☑ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Pornpas Siricururatana

Doctoral Degree Completed: 2021 (B.E. 2564)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles 1. Siricururatana, P., Mallikamarl, S., Surit, S., and Lek-uthai, P. (2026). **MATERIAL JOURNEY: Appropriate Construction Technology (2021-2025).** 180 pages. Bangkok: Faculty of Architecture, Kasetsart University. ISBN: 978-616-278-967-0	I	1.0
2) Research n/a		
3) Other Types of Academic Work 1. ภรพัสุ ศิริคุรุรัตน์. (2568). โรงแรมบีนส์ทอล์ค กรุงเทพ. ใน รวมผลงานวิชาการสถาปัตยนิทรรศน์ ครั้งที่ 9 นิทรรศการเผยแพร่ผลงานออกแบบและสร้างสรรค์ 2568 (สูจิบัตรผลงานสร้างสรรค์ เล่มที่ 3). หน้า 1-8. กรุงเทพฯ: คณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย. **(สภาคณบดีคณะสถาปัตยกรรมศาสตร์แห่งประเทศไทย)**	E	0.4
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Saithiwa Ramasoot

Doctoral Degree Completed: 2008 (B.E. 2551)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Hadjri, K., Durosaiye, I., Abubakar, A., Sinuraibhan, S., Sattayakorn, S., Wungpatcharapon, S., & Ramasoot, S. (2024). An exploration of live–work housing conditions of low-income older people in Bangkok, Thailand. **Housing and Society.** 51(3): 207–232. DOI: 10.1080/08882746.2024.2387416 (Scopus)	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Sani Limthongsakul

Doctoral Degree Completed: 2017 (B.E. 2560)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Trairatwong, N., Davivongs, V., & Limthongsakul, S. (2026). Geospatial analytics of food miles from Bangkok's peri-urban agricultural landscape to enhance urban food system resilience. **Journal of Digital Landscape Architecture**. 2026(11): 174–183. DOI: 10.14627/537770069 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Sigit Dwiananto Arifwidodo

Doctoral Degree Completed: 2010 (B.E. 2553)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Sangyuan, N., Arifwidodo, S.D., & Davivongs, V. (2025). Community-Driven Flood Risk Identification Using Participatory Mapping in Nakhon Nayok Province, Thailand. **Journal of Digital Landscape Architecture.** 10: 286-295. DOI: 10.14627/537754027 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Siradech Surit

Doctoral Degree Completed: 2011 (B.E. 2554)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Fhagatong, W., Visitsak, S., & Surit, S. (2024). Structure weight estimation of low-rise steel frame buildings by generative design. **Journal of King Mongkut's University of Technology North Bangkok.** 34(3): 1–15. DOI: 10.14456/jkmutnb.2024.34 **(TCI กลุ่มที่ 1)**	N	0.8
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Soranart Sinuraibhan

Doctoral Degree Completed: 2005 (B.E. 2548)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Hadjri, K., Durosaiye, I., Abubakar, A., Sinuraibhan, S., Sattayakorn, S., Wungpatcharapon, S., & Ramasoot, S. (2024). An exploration of live–work housing conditions of low-income older people in Bangkok, Thailand. **Housing and Society.** 51(3): 207–232. DOI: 10.1080/08882746.2024.2387416 **(Scopus)**	M	1
2. Redyantanu, B. P., Yatmo, Y. A., Atmodiwirjo, P., & Sinuraibhan, S. (2024). Actual material virtual materiality: Multiplicity of locality-based exhibition. **A|Z ITU Journal of the Faculty of Architecture,** 21(2), 53–68. DOI: 10.58278/0.2024.53 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☑ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Suchon Mallikamarl

Doctoral Degree Completed: 2018 (B.E. 2561)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Mallikamarl, S. (2024). Reexamining the Understanding of Vernacular House of "Hill Tribes" in Thailand: A Case of Iu Mien House in Phulangka Village. **Journal of Anthropology, Sirindhorn Anthropology Centre (JASAC).** 7(1):187-230. **(TCI กลุ่มที่ 2)**	J	0.6
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Supreeya Wungpatcharapon

Doctoral Degree Completed: 2012 (B.E. 2555)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Hadjri, K., Durosaiye, I., Abubakar, A., Sinuraibhan, S., Sattayakorn, S., Wungpatcharapon, S., & Ramasoot, S. (2024). An exploration of live–work housing conditions of low-income older people in Bangkok, Thailand. **Housing and Society.** 51(3): 207–232. DOI: 10.1080/08882746.2024.2387416 **(Scopus)**	M	1
2. Abdul Malek, N., Atmodiwirjo, P., Wungpatcharapon, S., & Ghaziani, R. (2024). A Comparative Study on Biophilic Preferences of School Learning Settings: A Case of Elementary Schools in Asia. **Planning Malaysia.** 22(33): 544-563. DOI: 10.21837/pm.v22i33.1567 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Tanasi Samphantharak Petyim

Doctoral Degree Completed: 2014 (B.E. 2557)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Samkhuntod, O., Petyim, T. S., & Sangyuan, N. (2024). Landscape Changes of Thai Traditional Orchard: Case Study of Food and Beverage Precincts in Orchards in Nonthaburi and Nakhon Pathom. **Asian Creative Architecture, Art and Design (ACAAD).** 37(1): 1–22. DOI: 10.55003/acaad.2024.269906 **(TCI กลุ่มที่ 1)**	N	0.8
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☑ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Assistant Professor Thitiwoot Chaisawasaree

Master's degree Completed: 2000 (B.E. 2543)

Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research n/a		
3) Other Types of Academic Work 1. ฐิติวุฒิ ชัยสวัสดิ์อารี (2568). อาคารปฏิบัติการเพื่อนวัตกรรมสิ่งแวดล้อม มหาวิทยาลัยเกษตรศาสตร์. ใน รวมผลงานวิชาการสถาปัตยนิทรรศน์ ครั้งที่ 9 นิทรรศการเผยแพร่ผลงานออกแบบและสร้างสรรค์ 2568 (สูจิบัตรผลงานออกแบบและสร้างสรรค์ดีเด่น). หน้า 85-92. กรุงเทพฯ: คณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย. **(สภาคณบดีคณะสถาปัตยกรรมศาสตร์แห่งประเทศไทย)**	E	0.4
4) Academic Works in Community Engagement n/a		

Bibliographic Record of Academic Works

☐ Faculty Member Responsible for the Curriculum ☑ Curriculum Faculty Member

☐ Instructor ☐ Guest Lecturer

Name–Surname: Associate Professor Ml. Vudipong Davivongs

Doctoral Degree Completed: 2012 (B.E. 2555)

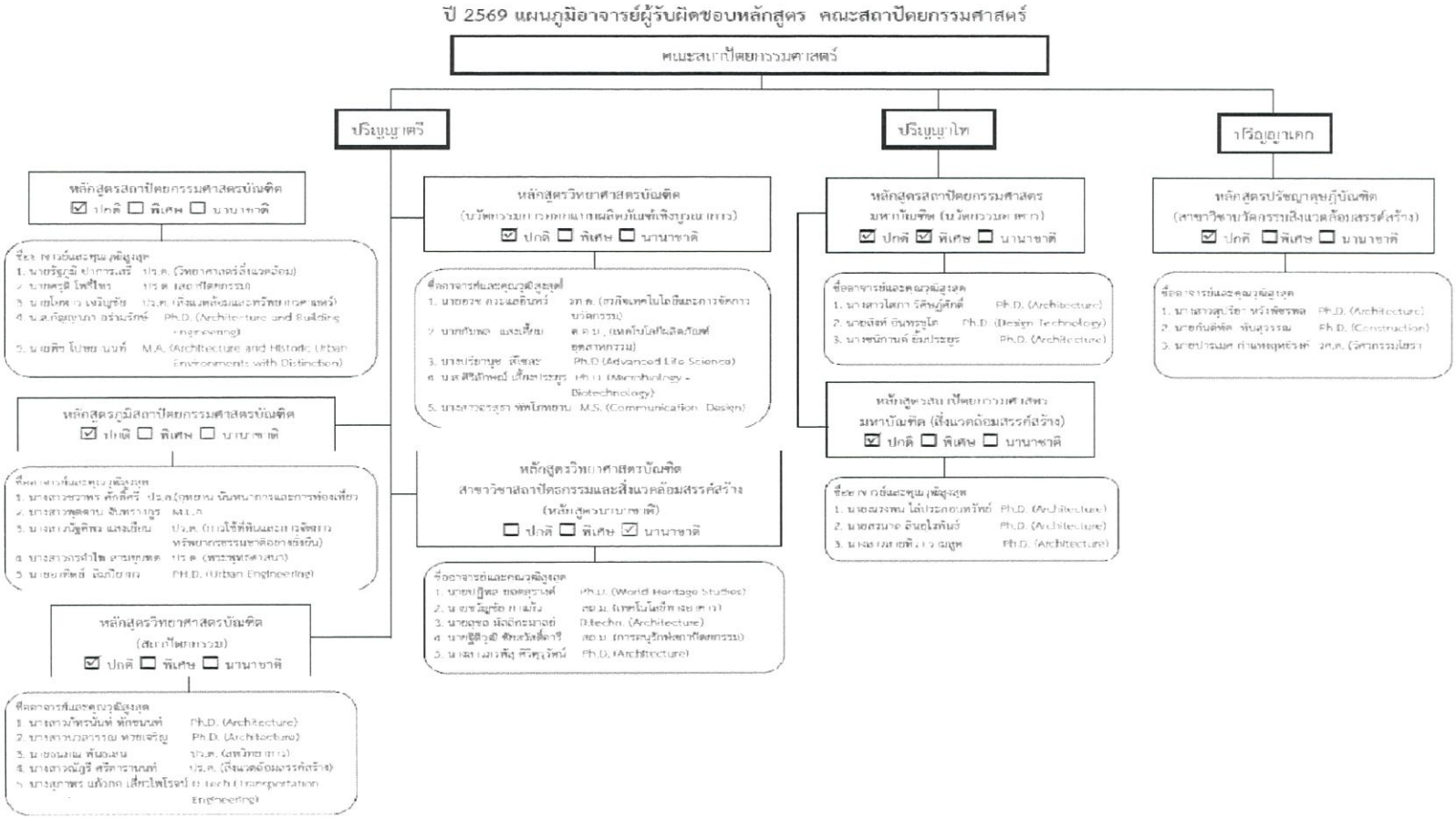
Bibliographic Record	Work Quality Level	Weighting
1) Authored or Compiled Works: Textbooks, Books, or Academic Articles n/a		
2) Research 1. Sangyuan, N., Arifwidodo, S.D., & Davivongs, V. (2025). Community-Driven Flood Risk Identification Using Participatory Mapping in Nakhon Nayok Province, Thailand. **Journal of Digital Landscape Architecture.** 10: 286-295. DOI: 10.14627/537754027 **(Scopus)**	M	1
3) Other Types of Academic Work n/a		
4) Academic Works in Community Engagement n/a		

Appendix 4

Organizational Chart

Faculty Members responsible for the curriculum / Curriculum Faculty Members

Faculty of Architecture, Kasetsart University



Appendix 5

New Course Proposal Form (KU 1-1)

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243111 3(3-0-6)

   Course Title Foundations of Architecture and Environment

   พื้นฐานสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course establishes the common foundation required by beginning students in the Architecture and Built Environment program. Its inclusion is supported by curriculum mapping, which identified the need for students from diverse educational backgrounds to acquire fundamental knowledge of architecture, spatial environments, and the relationships among people, culture, technology, and environmental conditions before undertaking more advanced study. The course also responds to stakeholder needs for graduates who can understand built environment issues holistically, analyze how buildings, spaces, and landscapes affect everyday life, and communicate across different fields with social and environmental responsibility. The course prepares students for subsequent design studios, environmental studies, heritage-related courses, building performance courses, and interdisciplinary projects within the program.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain fundamental principles of architecture and built environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Identify relationships between space, people, and environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	to explain relationships between people, place, and environment accurately.
3) Apply basic concepts to simple design exercises.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

7. Course Description

ความรู้พื้นฐานด้านสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง ศึกษาแนวคิดทางสถาปัตยกรรม บริบทของสิ่งแวดล้อม ความสัมพันธ์ระหว่างมนุษย์กับสภาพแวดล้อม และหลักการเบื้องต้นที่กำหนดพื้นที่ทางสถาปัตยกรรม การทำความเข้าใจองค์ประกอบสถาปัตยกรรม ปัจจัยด้านสิ่งแวดล้อม และบทบาทของสถาปัตยกรรมในมิติทางวัฒนธรรม สังคม และนิเวศวิทยา พื้นฐานสำหรับการเรียนการออกแบบ

Fundamental concepts of architecture and the built environment. Study of architectural thinking, environmental context, human–environment relationships, and basic principles shaping architectural space. Overview of architectural elements, environmental factors, and the role of architecture in cultural, social, and ecological contexts as a foundation for design.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243111

Course Title: Foundations of Architecture and Environment

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to architecture and built environment	3
2. Architecture, society, and culture	3
3. Human–environment relationships	3
4. Concepts of place and spatial experience	3
5. Elements of architectural form and space	3
6. Environmental factors in design (climate, light, landscape)	3
7. Architecture and sustainability	3
8. Buildings, infrastructure, and urban environments	3
9. Cultural landscapes and settlements	3
10. Technology and material in architecture	3
11. Architecture and community life	3
12. Reading and analyzing built environments	3
13. Case studies of architecture and built environment	3
14. Contemporary issues in architecture and environment	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243112 3(3-0-6)

   Course Title Creative and Design Thinking Theory

   ทฤษฎีความคิดสร้างสรรค์และการคิดเชิงออกแบบ

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This course establishes fundamental creative thinking and design thinking competencies required for further study in architecture and the built environment. Its inclusion is supported by curriculum mapping, which identified the need for students to develop systematic approaches to framing problems, exploring contextual conditions, generating diverse ideas, and evaluating possible solutions before progressing to design studios and interdisciplinary projects. It also responds to stakeholder needs for graduates who can address complex challenges creatively, collaborate across disciplines, adapt to changing social and environmental conditions, and develop solutions grounded in human needs. The course prepares students to apply critical inquiry, experimentation, and innovation in subsequent design, technology, environmental, heritage, and community-based courses.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain fundamental principles of creativity and design thinking in built environment contexts.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply design thinking processes to define built environment problems.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Generate creative concepts for defined user needs and contextual conditions.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

7. Course Description

ทฤษฎีและหลักการของความคิดสร้างสรรค์และการคิดเชิงออกแบบ กระบวนการสร้างสรรค์ การตั้งกรอบปัญหา เทคนิคการสร้างแนวคิด และระเบียบวิธีการออกแบบ แนวคิดการออกแบบที่ยึดมนุษย์เป็นศูนย์กลาง ความเข้าใจผู้ใช้ การคิดเชิงระบบ และการคิดแบบวนซ้ำ การประยุกต์ทฤษฎีความคิดสร้างสรรค์และการคิดเชิงออกแบบกับบริบทสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้างผ่านการวิเคราะห์กรณีศึกษา

Theories and principles of creativity and design thinking. Creative processes, problem framing, ideation techniques, and design methodologies. Human-centered design, empathy, systems thinking, and iterative thinking. Application of creative and design thinking theories to architectural and built environment contexts through analysis of case studies.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243112

Course Title: Creative and Design Thinking Theory

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to creativity and design thinking	3
2. Theories of creativity and innovation	3
3. Problem framing and design challenges	3
4. Human-centered design and empathy	3
5. Ideation techniques and creative methods	3
6. Systems thinking and complexity in design	3
7. Iterative design processes and prototyping concepts	3
8. Design thinking frameworks and methodologies	3
9. Collaboration and interdisciplinary creativity	3
10. Creativity in architecture and built environment practice	3
11. Case studies in innovative design processes	3
12. Design concept development discussion	3
13. Critical thinking and evaluation of ideas	3
14. Creative process reflection and synthesis	3
15. Final discussion and conceptual presentation	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243113 3(3-0-6)

   Course Title Culture and History of Built Environment

   วัฒนธรรมและประวัติศาสตร์ของสิ่งแวดล้อมสรรค์สร้าง

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243111 Foundations of Architecture and Environment

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course provides the historical and cultural foundation needed to understand how societies shape buildings, settlements, landscapes, and other forms of the built environment over time. Its inclusion is supported by curriculum mapping, which identified the need for students to interpret architecture and spatial development within their social, cultural, political, economic, technological, and environmental contexts. It responds to stakeholder needs for graduates who can recognize cultural diversity, understand relationships between communities and places, and apply historical knowledge responsibly in contemporary design and development. This knowledge prepares students for subsequent studies in architectural design, heritage ecosystems, cultural landscapes, adaptive reuse, community-based development, and sustainable spatial planning.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain major historical periods and cultural contexts of the built environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Analyze relationships among culture, society, and the built environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	sustainability to explain relationships between people, place, and environment accurately.
3) Compare built environment precedents across diverse cultural, regional, and international contexts.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

พัฒนาการทางวัฒนธรรมและประวัติศาสตร์ สิ่งแวดล้อมสรรค์สร้างตั้งแต่อดีตถึงร่วมสมัย ความสัมพันธ์ระหว่างสังคม วัฒนธรรม ความเชื่อ เทคโนโลยี การก่อรูปของสถาปัตยกรรม ชุมชน และภูมิทัศน์ การศึกษาเชิงเปรียบเทียบบริบทระดับโลกและระดับภูมิภาค คุณค่าทางวัฒนธรรมและเงื่อนไขทางประวัติศาสตร์ที่หล่อหลอมสิ่งแวดล้อมสรรค์สร้าง

Cultural and historical development. Built environment from ancient to contemporary periods. Relationships between society, culture, belief systems, technology. Formation of architecture, settlements, and landscapes. Comparative study of global and regional contexts. Cultural values and historical conditions shape the built environment.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243113

Course Title: Culture and History of Built Environment

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to culture, history, and built environment	3
2. Early settlements and ancient architectural traditions	3
3. Classical civilizations and architectural heritage	3
4. Religious architecture and sacred landscapes	3
5. Traditional settlements and vernacular architecture	3
6. Urban development and historical cities	3
7. Architecture in Asian cultural contexts	3
8. Architecture in Western historical traditions	3
9. Colonial encounters and cultural exchanges	3
10. Modern architecture and industrial transformation	3
11. Post-war development and globalization of architecture	3
12. Cultural landscapes and heritage environments	3
13. Contemporary architecture and cultural identity	3
14. Comparative analysis of global and regional built environments	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243121 3(1-4-4)

Course Title Design Module I : Form and Space

โมดูลการออกแบบ I รูปทรงและพื้นที่

2. This course belongs to the following undergraduate category :

(✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

(✓) Required Major Courses

( ) Elective Major Courses

( ) Free Electives

( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This course establishes the fundamental spatial and design competencies required for further study in the Architecture and Built Environment program. Its inclusion is supported by curriculum mapping, which identified the need for beginning students to understand form, proportion, scale, spatial organization, composition, and relationships between solid and void before progressing to more complex design modules. It responds to stakeholder needs for graduates who can think spatially, develop ideas through experimentation, communicate design intentions clearly, and consider human experience and contextual conditions in the design process. The course prepares students for subsequent design modules and interdisciplinary studies related to buildings, environments, communities, and spatial development.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Develop basic spatial compositions through form, proportion, and scale.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Apply fundamental design principles in guided studio exercises.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
3) Communicate spatial ideas through drawings and models.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

หลักการออกแบบพื้นฐานด้านรูปทรงและพื้นที่ สัดส่วน มาตราส่วน องค์ประกอบ การจัดระเบียบพื้นที่ และความสัมพันธ์ระหว่างมวลกับที่ว่าง ความสัมพันธ์ระหว่างพื้นที่กับมาตราส่วนมนุษย์ การเคลื่อนไหว การรับรู้ และประสบการณ์ทางสถาปัตยกรรม การสำรวจแนวคิดด้านรูปทรงและพื้นที่ผ่านการวาดภาพ หุ่นจำลอง และแบบฝึกหัดการออกแบบขั้นพื้นฐาน

Fundamental design principles of form and space. Proportion, scale, composition, spatial organization, and relationships between solid and void. Relationships of space to human scale, movement, perception, and architectural experience. Exploration of form and spatial concepts through drawings, models, and basic design exercises.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243121

Course Title: Design Module I : Form and Space

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to architectural design and spatial thinking	3
2. Principles of form, geometry, proportion, and scale	3
3. Spatial organization and composition principles	3
4. Light, shadow, and perception in spatial experience	3
5. Course synthesis and reflection	3
Total Lecture Hours	15

	Laboratory Hours
1. Introduction to studio tools, materials, and spatial exercises	6
2. Exploration of basic geometric forms and model construction	6
3. Solid–void relationships and spatial composition studies	6
4. Proportion, scale, and spatial hierarchy exercises	6
5. Light, shadow, and spatial perception experiments	6
6. Movement and spatial sequence studies	6
7. Material exploration and spatial structure	6
8. Development of spatial design compositions	6
9. Mid-review and design critique	6
10. Final spatial design project development	6
Total Laboratory Hours	60
Grand Total	75

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243122 3(1-4-4)

   Course Title Design Module II : Narrative, People and Place

   โมดูลการออกแบบ II เรื่องเล่า ผู้คน และสถานที่

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243121 Design Module I : Form and Space

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course advances the foundational understanding of form and space developed in Design Module I by introducing human experience, cultural context, and the social meanings of place as essential components of design. Its inclusion is supported by curriculum mapping, which identified the need for students to progress from formal and spatial composition toward interpreting how people, activities, narratives, identities, and collective memories influence the built environment. It responds to stakeholder needs for graduates who can engage with users and communities, understand diverse cultural perspectives, analyze places within their specific contexts, and translate qualitative information into meaningful design responses. The course prepares students for subsequent design modules and interdisciplinary projects involving communities, cultural landscapes, heritage ecosystems, and place-based development.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze social and cultural contexts of design sites.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
2) Compare spatial narratives across diverse cultural groups.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
3) Develop design concepts from narratives and user needs.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate design proposals through appropriate visual and verbal media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

การออกแบบที่เน้นความสัมพันธ์ระหว่างเรื่องเล่า ผู้คน และสถานที่ในสิ่งแวดล้อมสรรค์สร้าง เรื่องราว ความทรงจำ กิจกรรมทางสังคม วิถีชีวิต และความหลากหลายทางวัฒนธรรมที่มีอิทธิพลต่อความหมายของพื้นที่ การสังเกตพื้นที่ การอ่านบริบท ความเข้าใจผู้ใช้งาน และการศึกษาความต้องการของผู้มีส่วนเกี่ยวข้อง การถ่ายทอดเรื่องเล่าและประสบการณ์ของผู้คนสู่แนวคิดเชิงพื้นที่ผ่านแบบฝึกหัดการออกแบบ

Design exploration focusing on relationships among narratives, people, and places in the built environment. Stories, memories, social practices, everyday life, and cultural diversity influencing spatial meanings. Site observation, contextual reading, user understanding, and stakeholder needs. Translation of narratives and lived experiences into spatial concepts through design exercises.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243122

Course Title: Design Module II : Narrative, People and Place

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to narrative and place in architectural design	3
2. Understanding people, activities, and spatial behavior	3
3. Cultural context, memory, and identity in place-making	3
4. Translating narratives into spatial design concepts	3
5. Course synthesis and reflection	3
Total Lecture Hours	15

	Laboratory Hours
1. Observation of human activities and spatial behavior	6
2. Site reading and contextual documentation	6
3. Narrative mapping and interpretation exercises	6
4. Spatial concept development based on user experience	6
5. Design exercises responding to narrative and place	6
6. Mid-review and critique	6
7. Development of narrative-based spatial design	6
8. Integration of user activities into spatial organization	6
9. Design refinement and representation	6
10. Final design project presentation and critique	6
Total Laboratory Hours	60
Grand Total	75

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243141 3(3-0-6)

   Course Title Nature of Materials and Structure

   ธรรมชาติของวัสดุและโครงสร้าง

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This course establishes the fundamental understanding of materials and structural behavior required for further study in design and building performance. Its inclusion is supported by curriculum mapping, which identified the need for students to understand how material properties, structural systems, loads, forces, construction methods, and environmental conditions influence the safety, efficiency, durability, and spatial qualities of the built environment. It responds to stakeholder needs for graduates who can communicate effectively with technical specialists, select materials responsibly, recognize basic structural implications, and integrate environmental and technical considerations into design decisions. The course prepares students for subsequent studies in construction, building technology, environmental performance, sustainable design, and interdisciplinary design modules.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain fundamental properties of building materials and structural systems.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Evaluate material performance against environmental and structural requirements.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Select appropriate materials and structural concepts for defined design tasks.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

7. Course Description

คุณสมบัติพื้นฐานของวัสดุก่อสร้างและพฤติกรรมเบื้องต้นของโครงสร้าง ลักษณะของวัสดุธรรมชาติและวัสดุสังเคราะห์ สมรรถนะของวัสดุภายใต้แรง ระบบโครงสร้างพื้นฐาน การถ่ายแรง และเสถียรภาพ ความสัมพันธ์ระหว่างการเลือกใช้วัสดุ หลักการทำงานของโครงสร้าง และการออกแบบสถาปัตยกรรมในบริบทของสิ่งแวดล้อมสรรค์สร้าง

Fundamental properties of construction materials and basic structural behavior. Characteristics of natural and synthetic materials. Material performance under loads, basic structural systems, load transfer, and stability. Relationships among material selection, structural principles, and architectural design within built environment contexts.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243141

Course Title: Nature of Materials and Structure

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to materials and structural logic in architecture	3
2. Material properties: strength, elasticity, durability	3
3. Natural materials: wood, earth, bamboo, and stone	3
4. Manufactured materials: steel, concrete, glass, and composites	3
5. Structural forces: tension, compression, shear, and bending	3
6. Load types and force flow in structures	3
7. Structural stability and equilibrium	3
8. Basic structural systems: beams and columns	3
9. Frame structures and load distribution	3
10. Surface and shell structures	3
11. Relationship between materials and structural systems	3
12. Environmental considerations in material selection	3
13. Structural expression in architecture	3
14. Case studies of materials and structures in buildings	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243151 2 (1-2-3)

   Course Title Visual Communication and Technical Drawing

   การสื่อสารด้วยภาพและการเขียนแบบทางเทคนิค

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course establishes the visual and technical communication competencies required for further study in design and the built environment. Its inclusion is supported by curriculum mapping, which identified the need for beginning students to communicate spatial ideas, design intentions, and technical information through clear, accurate, and commonly understood forms of representation. It responds to stakeholder needs for graduates who can prepare and interpret drawings, collaborate across design and technical disciplines, and communicate effectively with clients, communities, consultants, and project teams. The course prepares students for subsequent design modules, construction and building technology courses, digital representation, spatial analysis, and interdisciplinary project communication.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Produce visual and technical drawings according to fundamental representation standards.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Apply architectural graphic conventions in defined drawing exercises.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate spatial and design information through appropriate visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

หลักการสื่อสารด้วยภาพสำหรับสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง การฝึกเขียนแบบทางเทคนิคและแบบสถาปัตยกรรมตามมาตรฐาน การใช้มาตราส่วน สัดส่วน ประเภทเส้น และสัญลักษณ์ทางกราฟิก ฝึกทักษะการเขียนแบบด้วยมือและการเขียนแบบดิจิทัลเบื้องต้น เพื่อถ่ายทอดแนวคิดการออกแบบ ข้อมูลเชิงพื้นที่ และรายละเอียดทางเทคนิคได้อย่างถูกต้องและชัดเจน

Principles of visual communication for architecture and the built environment. Practice in technical drawing, architectural drafting conventions, scale, proportion, line types, and graphical standards. Development of skills in hand drawing and basic digital drawing to communicate design ideas, spatial information, and technical details accurately and clearly.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243151

Course Title: Visual Communication and Technical Drawing

Credits: 2 (1-2-3)

Course Outline	Lecture Hours	Laboratory Hours
1. Introduction to visual communication in architecture	1	2
2. Graphic conventions and drawing standards	1	2
3. Line types, symbols, and architectural notation	1	2
4. Scale, proportion, and measurement in drawing	1	2
5. Orthographic drawing: plans, sections, elevations	1	2
6. Spatial representation and diagramming	1	2
7. Axonometric and isometric drawing techniques	1	2
8. Perspective drawing fundamentals	1	2
9. Architectural composition and layout	1	2
10. Communicating design ideas through diagrams	1	2
11. Introduction to digital drawing workflows	1	2
12. Combining hand drawing and digital techniques	1	2
13. Technical drawing accuracy and documentation	1	2
14. Drawing review and critique	1	2
15. Final synthesis and presentation	1	2
Total	15	30

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243152 3(3-0-6)

   Course Title Digital Tools I : Computer-Aided Design and Visualization
   เครื่องมือดิจิทัล I การออกแบบโดยใช้คอมพิวเตอร์ช่วยและการสร้างภาพจำลอง

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** 01243151 Visual Communication and Technical Drawing

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This course develops digital representation competencies following the foundational visual communication and technical drawing course. Its inclusion is supported by curriculum mapping, which identified the need for students to progress from manual representation to computer-aided drafting, modeling, and visualization used in contemporary built environment studies and design workflows. It responds to stakeholder needs for graduates who can produce accurate digital drawings, visualize spatial ideas, manage design information, communicate effectively with multidisciplinary teams, and adapt to evolving digital technologies. The course prepares students for subsequent design modules, advanced digital tools, building performance analysis, spatial documentation, and interdisciplinary project development.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Use computer-aided design tools for basic architectural drafting.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Create digital models and visualizations for defined design tasks.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	functional, environmental, cultural, and contextual requirements.
3) Communicate design ideas through appropriate digital media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

พื้นฐานเครื่องมือดิจิทัลสำหรับการออกแบบด้านสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง การเขียนแบบด้วยคอมพิวเตอร์ การสร้างแบบจำลองสามมิติ และการสร้างภาพจำลอง ความถูกต้องของแบบ การจัดการข้อมูลดิจิทัล และกระบวนการทำงานดิจิทัล การสื่อสารแนวคิดการออกแบบผ่านสื่อและการนำเสนอด้วยภาพดิจิทัล

Fundamental digital tools for architectural and built environment design. Computer-aided drafting, three-dimensional modeling, and visualization. Drawing accuracy, digital information management, and digital workflows. Communication of design ideas through digital media and visual presentations.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243152

Course Title: Digital Tools I : Computer-Aided Design and Visualization

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to digital tools in architecture and design workflows	3
2. Basics of computer-aided drafting and interface orientation	3
3. Digital drawing principles and line conventions	3
4. Creating architectural plans and basic drafting standards	3
5. Layers, object management, and drawing organization	3
6. Dimensioning, annotation, and technical documentation	3
7. Introduction to digital modeling concepts	3
8. Basic 3D modeling techniques for architectural forms	3
9. Developing architectural models from 2D drawings	3
10. Materials, textures, and lighting in digital visualization	3
11. Camera setup and architectural visualization techniques	3
12. Rendering and visual presentation basics	3
13. Integrating drawings, models, and visual outputs	3
14. Digital workflow for design communication	3
15. Final presentation and review of digital work	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243221 3(1-4-4)

   Course Title Design Module III : Community and Context

   โมดูลการออกแบบ III ชุมชนและบริบท

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243122 Design Module II : Narrative, People and Place

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course advances the place-based design competencies developed in Design Module II by extending the focus from individual experiences and narratives to communities and their wider contexts. Its inclusion is supported by curriculum mapping, which identified the need for students to understand how social, cultural, environmental, economic, and spatial conditions collectively shape the built environment before addressing more complex design challenges. It responds to stakeholder needs for graduates who can work responsibly with communities, recognize local knowledge and identity, engage diverse groups, and develop design proposals grounded in actual needs and contextual evidence. The course prepares students for subsequent design modules, heritage and environmental studies, community-based development, spatial planning, and interdisciplinary projects involving local authorities and community organizations.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze community needs and spatial contexts.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop context-responsive design proposals for defined community needs.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements
3) Communicate context-sensitive design solutions through appropriate visual and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Apply ethical and culturally sensitive principles in community engagement.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

สตูดิโอการออกแบบด้านสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้างที่เน้นชุมชนและบริบท การวิเคราะห์บริบททางสังคม วัฒนธรรม สิ่งแวดล้อม เศรษฐกิจ และเชิงพื้นที่ แนวทางการออกแบบโดยมีชุมชนเป็นฐาน การสำรวจพื้นที่ การทำแผนที่ และการมีส่วนร่วมของผู้มีส่วนได้ส่วนเสียอย่างมีจริยธรรมและคำนึงถึงความหลากหลายทางวัฒนธรรม การตีความอัตลักษณ์และภูมิปัญญาท้องถิ่น การพัฒนาแนวคิดการออกแบบและข้อเสนอเชิงพื้นที่ที่ตอบสนองต่อความต้องการของชุมชน

Architectural and built environment design studio focusing on community and context. Analysis of social, cultural, environmental, economic, and spatial contexts. Community-based design approaches, site investigation, mapping, and ethical stakeholder engagement with sensitivity to cultural diversity. Interpretation of local identity and knowledge. Development of design concepts and spatial proposals responsive to community needs.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243221

Course Title: Design Module III : Community and Context

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to community-based design and contextual architecture	3
2. Social and cultural context analysis	3
3. Environmental and economic conditions shaping communities	3
4. Local identity, culture, and place interpretation	3
5. Course synthesis and reflection	3
Total Lecture Hours	15

	Laboratory Hours
1. Community observation and documentation	6
2. Site analysis and contextual mapping	6
3. Stakeholder identification and engagement exercises	6
4. Analysis of community activities and spatial patterns	6
5. Development of context-based design concepts	6
6. Mid-review and critique	6
7. Design proposal responding to community needs	6
8. Integration of social and environmental context in design	6
9. Design refinement and representation	6
10. Final design presentation and critique	6
Total Laboratory Hours	60
Grand Total	75

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243222 3(1-4-4)
   Course Title Design Module IV : Systems and Networks
   การออกแบบโมดูล IV ระบบและเครือข่าย
2. **This course belongs to the following undergraduate category :**
   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment
   (✓) Required Major Courses
   ( ) Elective Major Courses
   ( ) Free Electives
   ( ) Service Courses for Program..... Major.....
3. **Prerequisites** 01243221 Design Module III : Community and Context
4. **Co-requisites** None
5. **Date of Course Preparation** 18th August 2026
6. **Objectives for Opening New Course**

6.1 Course Importance

This course advances the community- and context-based competencies developed in Design Module III by introducing systems thinking across multiple spatial scales. Its inclusion is supported by curriculum mapping, which identified the need for students to understand buildings, communities, and public spaces as interconnected components of wider mobility, infrastructure, ecological, economic, social, and information networks. It responds to stakeholder needs for graduates who can analyze complex relationships, collaborate across disciplines, coordinate diverse forms of information, and develop integrated responses to urban and environmental challenges. The course prepares students for advanced design modules, spatial and environmental planning, infrastructure-related studies, resilience projects, and interdisciplinary collaboration with communities, local authorities, technical specialists, and development organizations.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze interrelationships among spatial, environmental, and infrastructural systems.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply systems thinking in multi-scale design investigations.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Develop network-based spatial strategies for defined contexts.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate system relationships through analytical maps and diagrams.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

สตูดิโอออกแบบที่มุ่งเน้นระบบและเครือข่ายในงานสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง การวิเคราะห์ระบบเชิงพื้นที่ สังคม โครงสร้างพื้นฐาน นิเวศ และเทคโนโลยี ความสัมพันธ์ระหว่างอาคาร เมือง เครือข่ายการสัญจร ระบบสาธารณูปโภค การไหลของข้อมูล และระบบสิ่งแวดล้อม การบูรณาการระบบหลายระดับสู่กระบวนการออกแบบผ่านการวิเคราะห์ การทำแผนที่ และการทดลองเชิงออกแบบ

Design studio focusing on systems and networks in architecture and built environment. Analysis of spatial, social, infrastructural, ecological, and technological systems. Relationship between buildings, urban networks, mobility, utilities, information flows, and environmental systems. Integration of multi-scale systems into architectural and built environment design through analytical mapping and design experimentation.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243222

Course Title: Design Module IV : Systems and Networks

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to systems thinking in architecture and urban environments	3
2. Spatial systems and urban networks	3
3. Infrastructure, mobility, and environmental systems	3
4. Analytical mapping and network analysis	3
5. Course synthesis and reflection	3
Total Lecture Hours	**15**

	Laboratory Hours
1. Mapping spatial systems and networks	6
2. Analysis of infrastructure and mobility systems	6
3. Environmental and ecological network analysis	6
4. Multi-scale spatial system mapping exercises	6
5. Development of system-based design concepts	6
6. Mid-review and critique	6
7. Integration of networks into spatial design proposals	6
8. Design refinement and representation	6
9. Development of integrated system design strategies	6
10. Final design presentation and critique	6
Total Laboratory Hours	**60**
Grand Total	**75**

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243232 3(3-0-6)

   Course Title Human-Centered Design for Well-Being

   การออกแบบเพื่อสุขภาวะเชิงมนุษย์

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course builds on the community- and context-based design competencies developed in Design Module III by introducing systems thinking across multiple spatial scales. Its inclusion is supported by curriculum mapping and contemporary challenges related to public health, population ageing, accessibility, social inequality, environmental stress, and changing patterns of everyday life. It responds to stakeholder needs for graduates who can understand diverse user experiences, identify barriers within the built environment, engage responsibly with users and communities, and apply evidence to improve health, inclusion, safety, comfort, and quality of life. The course prepares students to integrate well-being considerations into subsequent design modules, community projects, public-space development, environmental planning, and interdisciplinary collaboration with health, social, and built environment professionals.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships between spatial conditions and user well-being.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between
2) Apply human-centered design principles to defined built environment problems.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Evaluate design proposals according to inclusive well-being criteria for diverse user groups.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

หลักการออกแบบที่มีมนุษย์เป็นศูนย์กลางเพื่อส่งเสริมสุขภาวะทางกาย จิตใจ และสังคม ความสัมพันธ์ระหว่างผู้ใช้ พฤติกรรมมนุษย์ พื้นที่ และสภาพแวดล้อม จิตวิทยาสิ่งแวดล้อม การศึกษาผู้ใช้ การออกแบบเพื่อคนทั้งมวล การเข้าถึง ความปลอดภัย และความสบาย สภาพแวดล้อม ผลิตภัณฑ์ และบริการที่ส่งเสริมสุขภาพและสุขภาวะในระดับอาคาร ชุมชน เมือง และพื้นที่สาธารณะ การออกแบบสำหรับผู้สูงอายุ สภาพแวดล้อมเพื่อการบำบัด สวนบำบัด และเกษตรกรรมในเมือง การประเมินกรณีศึกษาและแนวทางการออกแบบตามเกณฑ์ด้านสุขภาวะและความครอบคลุม

Principles of human-centered design for physical, psychological, and social well-being. Relationships among users, human behavior, space, and environmental conditions. Environmental psychology, user research, universal design, accessibility, safety, and comfort. Health-supportive environments, products, and services at building, community, urban, and public-space scales. Design for older adults, therapeutic environments, healing gardens, and urban agriculture. Evaluation of case studies and design approaches according to well-being and inclusion criteria.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243232

Course Title: Human-Centered Design for Well-Being

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to well-being and built environment	3
2. Human health, environment, and quality of life	3
3. Environmental psychology and human behavior	3
4. Design thinking for well-being environments	3
5. Restorative environments and therapeutic landscapes	3
6. Universal design, accessibility, and inclusivity	3
7. Design for elderly and aging societies	3
8. Urban public space and well-being	3
9. Green spaces, urban agriculture, and health	3
10. Therapeutic gardens and healing environments	3
11. Products, services, and innovation for health	3
12. Sustainable environments and well-being	3
13. Case studies in well-being design	3
14. Design proposal discussion and critical review	3
15. Final synthesis and presentation	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243241 3(3-0-6)

   Course Title Building Technology and Sustainable Materials

   เทคโนโลยีอาคารและวัสดุอย่างยั่งยืน

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** 01243141 Nature of Materials and Structure
4. **Co-requisites** None
5. **Date of Course Preparation** 18th August 2026
6. **Objectives for Opening New Course**

6.1 Course Importance

This course builds upon the fundamental understanding of materials and structural behavior developed in Nature of Materials and Structure by introducing building components, construction systems, material applications, and environmental performance. Its inclusion is supported by curriculum mapping and by the need to reduce resource consumption, construction waste, embodied carbon, operational energy use, and the environmental impacts of buildings throughout their life cycles. It responds to stakeholder needs for graduates who can select materials responsibly, understand construction processes, evaluate technical and environmental performance, communicate with contractors and technical specialists, and integrate sustainability considerations into design decisions. The course prepares students for advanced building performance studies, sustainable design projects, environmental assessment, and interdisciplinary work related to building construction and development.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain relationships among building components, construction systems, and material properties..	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Evaluate the technical and environmental performance of materials against life-cycle criteria.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Select sustainable materials for defined building applications.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate building technology decisions through technical documentation.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

เทคโนโลยีอาคาร องค์ประกอบอาคาร ระบบการก่อสร้าง และวัสดุยั่งยืน คุณสมบัติและการประยุกต์ใช้วัสดุ วิธีการก่อสร้าง และสมรรถนะด้านเทคนิคและสิ่งแวดล้อม หลักเกณฑ์การเลือกวัสดุด้านความทนทาน ความเหมาะสมกับสภาพภูมิอากาศ การบำรุงรักษา การปรับเปลี่ยนการใช้งาน ประสิทธิภาพการใช้ทรัพยากร คาร์บอนสะสม และผลกระทบตลอดวัฏจักรชีวิต การจัดทำเอกสารทางเทคนิคสำหรับงานออกแบบและการก่อสร้าง

Building technology, building components, construction systems, and sustainable materials. Material properties and applications, construction methods, and technical and environmental performance. Material selection criteria concerning durability, climate suitability, maintenance, adaptability, resource efficiency, embodied carbon, and life-cycle impacts. Technical documentation for building design and construction.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243241

Course Title: Building Technology and Sustainable Materials

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to building technology and sustainable materials	3
2. Overview of building systems and construction processes	3
3. Structural concepts and building components	3
4. Foundations and structural systems	3
5. Wall systems and enclosure technologies	3
6. Roof systems and building envelope performance	3
7. Properties and performance of construction materials	3
8. Sustainable materials and life-cycle considerations	3
9. Energy-efficient building materials and technologies	3
10. Thermal performance and environmental comfort	3
11. Water management and environmental building systems	3
12. Innovative materials and emerging technologies	3
13. Material selection and sustainability evaluation	3
14. Case studies of sustainable construction and building systems	3
15. Course synthesis and review	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243242 3(3-0-6)

   Course Title Healthy Building Performance and Design

   การออกแบบและประสิทธิภาพอาคารเพื่อสุขภาวะ

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243241 Building Technology and Sustainable Materials

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course builds upon knowledge of building technology and sustainable materials by examining how building performance influences occupant health, comfort, productivity, and quality of life. Its inclusion is supported by curriculum mapping within the Building Performance and Design for Well-Being areas and by growing concerns regarding indoor air quality, thermal stress, inadequate lighting, noise, energy consumption, and health risks in occupied buildings. It responds to stakeholder needs for graduates who can assess indoor environmental conditions, interpret performance data, communicate with users and technical specialists, and develop evidence-based design strategies that balance health, comfort, environmental responsibility, and building efficiency. The course prepares students for advanced design modules, building evaluation, environmental simulation, post-occupancy studies, and interdisciplinary work in healthy and sustainable built environments.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships between indoor environmental factors and occupant health.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply healthy building principles to define design problems.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Evaluate indoor environmental quality against international performance standards.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
4) Communicate building performance findings through technical reports and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

หลักการอาคารสุขภาวะโดยเน้นการประเมินเชิงสมรรถนะของสภาพแวดล้อมภายในอาคาร ความสัมพันธ์ระหว่างสภาพแวดล้อมกับสุขภาพผู้ใช้อาคาร การออกแบบและวิเคราะห์คุณภาพอากาศ ความสบายเชิงความร้อน แสงสว่าง และเสียง โดยอ้างอิงมาตรฐานสากล และใช้การจำลองและการตรวจวัดเพื่อสนับสนุนการออกแบบ

Principles of healthy buildings focusing on performance-based assessment of indoor environmental quality. Relationship between environment and occupant health. Design and analysis of air quality, thermal comfort, lighting, and acoustics based on international standards, using simulation and measurement to support design.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243242

Course Title: Healthy Building Performance and Design

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to healthy buildings and well-being in architecture	3
2. Relationship between built environment and human health	3
3. Indoor environmental quality and occupant well-being	3
4. Air quality and ventilation design	3
5. Natural lighting and daylight strategies	3
6. Artificial lighting and visual comfort	3
7. Thermal comfort and environmental control	3
8. Acoustic comfort and noise management	3
9. Biophilic design and connection to nature	3
10. Healthy materials and indoor pollutants	3
11. Building performance and environmental monitoring	3
12. Healthy building standards and certification systems	3
13. Case studies of healthy building design	3
14. Integrating health considerations in architectural design	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243251 3(1-4-6)

   Course Title Architecture and Built Environment Documentation

   การบันทึกข้อมูลทางสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This course develops the documentation competencies required to record, interpret, and communicate information about architecture and the built environment accurately and systematically. Its inclusion is supported by curriculum mapping, which identified documentation as essential evidence for design analysis, building assessment, heritage conservation, research, project communication, and long-term information management. It responds to stakeholder needs from communities, property owners, heritage authorities, researchers, designers, and built environment organizations for graduates who can produce reliable records of buildings and places constructed in timber, stone, brick, and concrete. The course prepares students for subsequent design modules, heritage and adaptive reuse studies, building performance assessment, community-based projects, research, and professional documentation and archiving.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Apply manual and digital documentation tools in field recording tasks.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Produce accurate architectural drawings and documentation records.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Interpret relationships between historical records and existing physical conditions.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
4) Communicate built environment information through appropriate representational media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

การเก็บข้อมูลสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้างที่ก่อสร้างด้วยไม้ หิน อิฐ และคอนกรีต การอ่านและตีความแบบสถาปัตยกรรมและเอกสารทางประวัติศาสตร์ การเปรียบเทียบหลักฐานเดิมกับสภาพทางกายภาพในปัจจุบัน การจัดระบบและการสื่อสารข้อมูลผ่านสื่อการนำเสนอแบบใช้มือและแบบดิจิทัล

Documenting architecture and Built Environment constructed in timber, stone, brick, and concrete. Reading and interpretation of historical architectural drawings and documents. Comparison of historical evidence with existing physical conditions. Organization and communication of information through manual and digital representational media.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243251

Course Title: Architecture and Built Environment Documentation

Credits: 3(1-4-6)

Course Outline	Lecture Hours
1. Introduction to architectural documentation	2
2. Built Environment on timber	2
3. Built Environment on brick and stone	2
4. Built Environment on concrete and Documentation of Modern Architecture	2
5. Vernacular Architecture in Thailand	2
6. Reading historic architectural drawing and archival material	2
7. Case studies of architectural documentation	3
Total	15

Course Outline	Laboratory Hours
1. Learning and Practicing Hand and Tool Measurement	10
2. Reading and analyzing historic architectural drawings	5
3. Archival study	5
4. Field Trip and architectural Documentation	20
5. Reconstruction drawings and preparing representation	10
6. Project Presentation	10
Total	60

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243252 3(3-0-6)

   Course Title Digital Tools II : BIM and Parametric Design

   เครื่องมือดิจิทัล II บีไอเอ็มและการออกแบบเชิงพาราเมตริก

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243152 Digital Tools I : Computer-Aided Design and Visualization

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course advances the digital drafting, modeling, and visualization competencies developed in Digital Tools I by introducing information-based and computational design processes. Its inclusion is supported by curriculum mapping and the increasing use of Building Information Modeling and parametric methods to coordinate design information, analyze alternatives, reduce errors, and support decision-making throughout the building life cycle. It responds to stakeholder needs for graduates who can work collaboratively within digital environments, manage interconnected building data, communicate with multidisciplinary teams, and adapt design solutions to changing spatial, technical, and environmental requirements. The course prepares students for advanced design modules, building performance analysis, interdisciplinary project coordination, digital fabrication, and final-year projects.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Develop BIM models for building projects.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Use parametric design tools for design option generation.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Integrate information-based workflows into design processes.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate coordinated design information through BIM documentation and digital visualizations.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Collaborate within shared BIM environments.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การใช้แบบจำลองสารสนเทศอาคาร (BIM) และการออกแบบเชิงพาราเมตริกสำหรับงานสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง หลักการออกแบบบนฐานข้อมูล การสร้างแบบจำลองดิจิทัล การจัดการข้อมูล และการประสานงานระหว่างระบบ การประยุกต์ BIM ในการพัฒนาแบบ การจัดทำเอกสาร การทำงานร่วมกัน และการจำลองสมรรถนะอาคาร หลักการออกแบบตามกฎและการใช้เครื่องมือพาราเมตริกสำหรับการสร้างทางเลือก การศึกษาความสัมพันธ์ของระบบและการปรับปรุงแบบในระดับอาคารและสิ่งแวดล้อมสรรค์สร้าง

Building Information Modeling (BIM) and parametric design for architecture and the built environment. Principles of data-driven design, digital modeling, information management, and interdisciplinary coordination. Application of BIM in design development, documentation, collaboration, and building performance simulation. Rule-based design and parametric tools for design option generation, exploration of system relationships, and design refinement at building and built environment scales.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243252

Course Title: Digital Tools II : BIM and Parametric Design

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to BIM and parametric design concepts	3
2. Principles of data-driven design and digital workflows	3
3. BIM modeling fundamentals and interface overview	3
4. Creating architectural BIM models and components	3
5. BIM documentation and drawing extraction	3
6. BIM coordination and collaborative workflows	3
7. Building data and information management	3
8. Introduction to parametric design principles	3
9. Parametric modeling tools and visual scripting basics	3
10. Form generation using parametric relationships	3
11. Parametric control of geometry and design variables	3
12. Environmental and performance analysis using digital tools	3
13. Integration of BIM and parametric workflows	3
14. Case studies of BIM and parametric design applications	3
15. Final synthesis and presentation	3
Total	45

NEW COURSE PROPOSAL FORM

KU 1-1

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243291 2(2-0-4)

   Course Title Design and Environmental Research Methods

   ระเบียบวิธีวิจัยด้านการออกแบบและสิ่งแวดล้อมสรรค์สร้าง

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This course establishes the research competencies required to investigate relationships among people, places, environmental conditions, and built environment. Its inclusion is supported by curriculum mapping, which identified the need for students to collect, evaluate, and interpret evidence systematically before applying it to design, planning, and environmental decisions. It responds to stakeholder needs for graduates who can define relevant research questions, work with communities and users ethically, integrate qualitative and quantitative information, and communicate findings clearly to multidisciplinary teams and decision-makers. The course prepares students for research-informed design modules, community and heritage projects, building performance studies, spatial planning, independent research, and the final-year project.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain fundamental research methods in design and built environment studies.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply appropriate data collection methods in guided research exercises.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	functional, environmental, cultural, and contextual requirements.
3) Analyze qualitative and quantitative data from defined research problems.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
4) Prepare basic research proposals for built environment studies.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

แนวคิดและระเบียบวิธีวิจัยด้านการออกแบบและสิ่งแวดล้อมสรรค์สร้าง การกำหนดปัญหาและคำถามวิจัย การทบทวนวรรณกรรม วิธีวิจัยเชิงคุณภาพและเชิงปริมาณ วิธีการเก็บรวบรวมข้อมูลและการวิเคราะห์ข้อมูลเบื้องต้น การวิเคราะห์ข้อมูลด้านสิ่งแวดล้อมและเชิงพื้นที่ จริยธรรมการวิจัย และการประยุกต์ผลการวิจัยในกระบวนการออกแบบและการวางแผน

Concepts and research methods in design and built environment studies. Formulation of research problems and questions. Literature review, qualitative and quantitative methods, data collection methods, and basic data analysis. Environmental and spatial analysis, research ethics, and application of research findings in design and planning processes.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243291

Course Title: Design and Environmental Research Methods

Credits: 2(2-0-4)

Course Outline	Lecture Hours
1. Introduction to research in design and built environment	2
2. Research questions and problem definition	2
3. Research design and methodological approaches	2
4. Qualitative research methods	2
5. Quantitative research methods	2
6. Data collection techniques: observation and surveys	2
7. Interviews and participatory research methods	2
8. Environmental and spatial data collection	2
9. Basic data analysis methods	2
10. Mapping and spatial analysis	2
11. Case study research in built environment	2
12. Research ethics and responsible research practice	2
13. Developing a research proposal	2
14. Communicating research findings	2
15. Research discussion and course synthesis	2
Total	30

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243321 3(1-4-4)
   Course Title Design Module V : Contextual and Regenerative Design Strategies
   โมดูลออกแบบ V กลยุทธ์การออกแบบเชิงบริบทและเชิงฟื้นฟู

2. **This course belongs to the following undergraduate category :**
   - (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment
     - (✓) Required Major Courses
     - ( ) Elective Major Courses
   - ( ) Free Electives
   - ( ) Service Courses for Program..... Major.....

3. **Prerequisites** 01243222 Design Module IV : Systems and Networks
4. **Co-requisites** None
5. **Date of Course Preparation** 18th August 2026
6. **Objectives for Opening New Course**

6.1 Course Importance

This course advances the systems-based competencies developed in Design Module IV by applying contextual and regenerative approaches to complex spatial and environmental challenges. Its inclusion is supported by curriculum mapping and the growing need to address climate change, ecosystem degradation, resource depletion, cultural disruption, social inequality, and the vulnerability of communities and built environments. It responds to stakeholder needs for graduates who can work across disciplines, understand local ecological and cultural systems, engage communities and responsible authorities, and develop design strategies that produce positive environmental and social outcomes rather than merely reducing negative impacts. The course prepares students for the final design module, independent projects, sustainable development, environmental planning, heritage-led regeneration, and interdisciplinary work with communities, public agencies, and built environment organizations.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze environmental and cultural systems within defined design contexts.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
2) Develop regenerative design strategies for complex spatial challenges.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Communicate integrated design proposals through professional visual and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate regenerative design decisions against ethical, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

สตูดิโอการออกแบบเชิงบริบทในระดับอาคาร ชุมชน เมือง และภูมิทัศน์ แนวคิดและหลักการออกแบบเชิงฟื้นฟู ความสัมพันธ์ระหว่างระบบนิเวศ วัฒนธรรม สังคม และเศรษฐกิจ การวิจัยบริบท การวิเคราะห์ระบบ การมีส่วนร่วมของผู้มีส่วนได้ส่วนเสีย การออกแบบที่ตอบสนองต่อสภาพภูมิอากาศ และแนวคิดการฟื้นฟูระบบนิเวศ การพัฒนากลยุทธ์เชิงพื้นที่ที่ส่งเสริมการฟื้นฟู ความยืดหยุ่นต่อการเปลี่ยนแปลง ความต่อเนื่องทางวัฒนธรรม และการปรับตัวในระยะยาว

Contextual design studio at building, community, urban, and landscape scales. Concepts and principles of regenerative design. Relationships among ecological, cultural, social, and economic systems. Contextual research, systems analysis, stakeholder engagement, climate-responsive design, and ecological restoration concepts. Development of spatial strategies promoting regeneration, resilience, cultural continuity, and long-term adaptability.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243321

Course Title: Design Module V : Contextual and Regenerative Design Strategies

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to regenerative design and contextual strategies	3
2. Environmental systems, climate, and ecological design principles	3
3. Cultural context and place-sensitive architectural strategies	3
4. Integrating sustainability and resilience into design	3
5. Course synthesis and reflection	3
Total Lecture Hours	15

	Laboratory Hours
1. Environmental and contextual site analysis	6
2. Mapping ecological and cultural systems	6
3. Development of regenerative design strategies	6
4. Design experimentation and concept development	6
5. Mid-review and critique	6
6. Integration of sustainability strategies in design proposals	6
7. Development of contextual architectural design	6
8. Design refinement and representation	6
9. Environmental impact considerations in design	6
10. Final design presentation and critique	6
Total Laboratory Hours	60
Grand Total	75

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243322 3(1-4-4)

   Course Title Design Module VI : Integration and Impact

   โมดูลออกแบบ VI : การบูรณาการและผลกระทบ

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** 01243321 Design Module V : Contextual and Regenerative Design Strategies

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This course serves as the culminating design module, integrating the knowledge and competencies developed throughout the program in design, well-being, heritage ecosystems, building performance, digital technology, environmental analysis, research, and community engagement. Its inclusion is supported by curriculum mapping, which identified the need for students to demonstrate their ability to synthesize multidisciplinary knowledge and address complex-built environment challenges through a comprehensive project. It responds to stakeholder needs for graduates who can define relevant problems, collaborate with diverse groups, manage interconnected information, evaluate alternative strategies, and communicate the intended social, environmental, cultural, and spatial impacts of their proposals. The course consolidates the program learning outcomes and prepares students for independent projects, further study, and interdisciplinary careers related to design and the built environment.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze complex-built environment conditions using multidisciplinary knowledge.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop comprehensive design proposals using appropriate analytical and digital tools.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Communicate integrated design outcomes through professional visual, written, and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate design impacts against ethical, social, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Manage an integrated design process through responsible and self-directed practice.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

สตูดิโอการออกแบบขั้นสูงที่บูรณาการองค์ความรู้ด้านการออกแบบ สุขภาวะ ระบบนิเวศมรดก สมรรถนะอาคาร เทคโนโลยีดิจิทัล การวิเคราะห์สิ่งแวดล้อม และการวิจัย การวิเคราะห์ปัญหาและบริบทของสิ่งแวดล้อมสรรค์สร้างที่ซับซ้อน การพัฒนาโครงการออกแบบแบบองค์รวมโดยใช้ข้อมูลและหลักฐาน การประเมินผลกระทบทางสังคม วัฒนธรรม สิ่งแวดล้อม และเศรษฐกิจ การจัดการกระบวนการออกแบบ และการนำเสนอผลงานตามมาตรฐานวิชาชีพ

Advanced design studio integrating knowledge of design, well-being, heritage ecosystems, building performance, digital technology, environmental analysis, and research. Analysis of complex-built environment problems and contexts. Development of comprehensive, evidence-based design projects. Assessment of social, cultural, environmental, and economic impacts. Management of the design process and presentation of project outcomes according to professional standards.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243322

Course Title: Design Module VI : Integration and Impact

Credit: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to integrative design approaches	3
2. Social, environmental, and economic impact analysis	3
3. Multidisciplinary design strategies	3
4. Evaluating design outcomes and performance	3
5. Course synthesis and reflection	3
Total Lecture Hours	15

	Laboratory Hours
1. Project topic definition and contextual research	6
2. Analysis of social, environmental, and spatial conditions	6
3. Development of integrated design concepts	6
4. Design experimentation and strategy development	6
5. Mid-review and critique	6
6. Integration of systems, technologies, and spatial design	6
7. Development of comprehensive architectural proposals	6
8. Design refinement and representation	6
9. Evaluation of design impacts and performance	6
10. Final project presentation and critique	6
Total Laboratory Hours	60
Grand Total	75

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243331 3(3-0-6)

   Course Title Nature by Design

   ธรรมชาติโดยการออกแบบ

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This course develops the ecological and landscape understanding required to examine the built environment as part of interconnected natural and cultural systems. Its inclusion is supported by curriculum mapping and the growing need to address climate change, flooding, urban heat, biodiversity loss, ecosystem degradation, and declining access to healthy public and green spaces. It responds to stakeholder needs for graduates who can understand site conditions, work with natural processes, recognize relationships between buildings and landscapes, and collaborate with communities, landscape specialists, environmental professionals, and local authorities. The course prepares students to integrate landscape and nature-based approaches into subsequent design modules, community projects, heritage ecosystem studies, climate adaptation, environmental planning, and regenerative design.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain ecological principles relevant to landscape design.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Analyze natural and cultural characteristics of defined sites.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	sustainability to explain relationships between people, place, and environment accurately.
3) Develop basic landscape design proposals responding to site conditions.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Communicate landscape concepts through appropriate visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

แนวคิดและขอบเขตของภูมิสถาปัตยกรรม การคิดเชิงภูมิทัศน์ ความสัมพันธ์ระหว่างภูมิทัศน์ สถาปัตยกรรม และบริบทพื้นที่ กระบวนการออกแบบภูมิทัศน์ การวิเคราะห์พื้นที่ การพัฒนาแนวคิด การจัดองค์ประกอบพื้นที่ภายนอก การเลือกพรรณพืชและวัสดุ ประเด็นร่วมสมัยด้านภูมิทัศน์ เช่น การออกแบบตอบสนองภูมิอากาศ ภูมิทัศน์ยั่งยืน ความหลากหลายทางชีวภาพ สุขภาวะเมือง และภูมิทัศน์วัฒนธรรม กรณีศึกษาภูมิทัศน์ระดับสวน อาคาร สวนสาธารณะ และระบบนิเวศระดับภูมิภาค รวมถึงบทบาทของภูมิสถาปนิกในการทำงานร่วมกับสถาปนิกและวิชาชีพที่เกี่ยวข้อง

Concepts and scope of landscape architecture. Landscape thinking and relationships between landscape, architecture, and site context. Landscape design process including site analysis, concept development, spatial composition, planting strategies, and material selection. Contemporary issues including climate-responsive design, sustainable and resilient landscapes, urban wellbeing, biodiversity, and cultural landscapes. Case studies across scales from gardens to urban parks and regional landscape systems. Collaboration between landscape architects and other built environment professionals.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243331

Course Title: Nature by Design

Credits: 3(3-0-6)

Course Outline		Lecture Hours
1.	Introduction to landscape architecture, landscape thinking, and scope of practice	3
2.	Small-scale landscapes: residential gardens, courtyards, roof gardens	3
3.	Institutional and resort landscapes: campuses, hospitality landscapes	3
4.	Urban parks and regional landscape systems	3
5.	Site analysis: topography, hydrology, vegetation, microclimate, views	3
6.	Design concept development and precedent studies	3
7.	Spatial composition and outdoor space design principles	3
8.	Site planning and building–landscape integration	3
9.	Climate-responsive landscape design	3
10.	Sustainable and resilient landscape strategies	3
11.	Planting design, urban ecology, and biodiversity	3
12.	Design for wellbeing and therapeutic landscapes	3
13.	Urban health, active living, and walkable environments	3
14.	Cultural landscapes and heritage landscapes	3
15.	Professional collaboration between architects and landscape architects	3
	Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243332 3(1-4-4)

   Course Title Design for One Health and Well-Being Studio

   สตูดิโอออกแบบเพื่อสุขภาวะหนึ่งเดียว (One Health)

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective studio applies the One Health framework to design by examining the interdependence of human, animal, and ecosystem health across buildings, communities, and landscapes. Its inclusion is supported by emerging public health and environmental priorities related to climate change, biodiversity loss, zoonotic disease risks, food systems, pollution, and unequal access to healthy environments. It responds to stakeholder needs for graduates who can collaborate across design, health, environmental, and community sectors; interpret relationships between spatial conditions and health; and develop integrated responses that avoid transferring risks from one system to another. The course enables students to apply One Health principles to spatial strategies and prepares them for interdisciplinary work involving healthy environments, community development, environmental planning, public health, and regenerative design.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze interrelationships among human, animal, and ecosystem health within defined spatial contexts.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop integrated design proposals based on One Health principles.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate One Health design proposals through professional visual and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate design decisions against ethical, environmental, and internationally recognized One Health principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with diverse stakeholders in interdisciplinary design processes.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

สตูดิโอการออกแบบบูรณาการ สุขภาพของมนุษย์ สัตว์ และสิ่งแวดล้อม การพัฒนาโครงการออกแบบที่ส่งเสริมสุขภาวะในระดับอาคาร ชุมชน และภูมิทัศน์ การทำงานสตูดิโอเชิงวิเคราะห์และออกแบบ

Integrated design studio. One Health concept linking human, animal, and environmental health. Development of design projects promoting well-being at building, community, and landscape scales. Studio-based analysis and design practice.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243332

Course Title: Design for One Health and Well-Being Studio

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to One Health and built environment design	2
2. Relationships between human, animal, and environmental health	2
3. Environmental quality and healthy built environments	2
4. Ecological systems and biodiversity in design	2
5. Environmental psychology and well-being	2
6. Urban health and healthy communities	2
7. Green infrastructure and ecosystem services	2
8. Final presentation and discussion	1
Total	15

	Laboratory hours
1. Selection of a One Health Design Issue and Study Area	4
2. Site Investigation and Stakeholder Identification	4
3. Mapping of Human, Animal, and Ecosystem Health Conditions	4
4. Analysis of Environmental Quality and Health Risks	4
5. Study of One Health Design Precedents	4
6. Development of One Health Design Scenarios	4
7. Mid-review and critique	4
8. Development of Spatial and Landscape Strategies	4
9. Integration of Biodiversity and Ecosystem Services	4
10. Integration of Health, Accessibility, and Well-Being Considerations	4
11. Development of spatial and experiential qualities	4
12. Development of Interdisciplinary Design Proposals	4
13. Evaluation of Design Proposals against One Health Principles	4
14. Refinement and Documentation of the Final Project	4
15. Final presentation and review	4
Total	60

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243333 3(1-4-4)

   Course Title Future Society Innovation Studio

   สตูดิโอนวัตกรรมเพื่อสังคมอนาคต

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This elective studio develops students' capacity to anticipate and respond creatively to emerging social, technological, environmental, and spatial changes. Its inclusion is supported by increasing uncertainty arising from climate change, demographic transition, digital transformation, new patterns of living and working, and the changing relationships among people, technology, and urban systems. It responds to stakeholder needs for graduates who can identify emerging challenges, work with diverse perspectives, explore alternative futures, and translate research into innovative and socially responsible concepts. The course enables students to test ideas without assuming a single predetermined future and prepares them for interdisciplinary work in social innovation, strategic design, urban development, emerging technology, and future-oriented built environment projects.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze emerging social, technological, environmental, and spatial challenges.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop innovative design proposals for alternative future scenarios.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate future-oriented design proposals through appropriate visual, written, and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate future design proposals against ethical, social, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with diverse stakeholders in interdisciplinary design processes.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การออกแบบเชิงนวัตกรรม การเปลี่ยนแปลงของสังคมอนาคต เทคโนโลยีใหม่ รูปแบบการอยู่อาศัย และระบบเมือง การพัฒนาแนวคิดและต้นแบบผ่านกระบวนการออกแบบเชิงสตูดิโอ

Design studio. Innovation for future societies. Exploration of emerging technologies, living patterns, and urban systems. Development of concepts and prototypes through studio-based design processes.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243333

Course Title: Future Society Innovation Studio

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to future society, emerging technologies, and societal transformation	2
2. Futures thinking, scenario building, and social innovation strategies	2
3. Urban futures, environmental challenges, and resilient design approaches	2
4. Innovation methods and experimental design processes	2
5. Case studies of future-oriented architecture and urban innovation	2
6. Ethical and societal implications of future design	2
7. Integrating future scenarios into architectural strategies	2
8. Final lecture and synthesis discussion	1
Total	15
	Laboratory hours
1. Exploration of future societal challenges and themes	4
2. Research and precedent study of emerging technologies	4
3. Scenario development and design exploration	4
4. Site and context analysis for future scenarios	4
5. Concept generation and design ideation	4
6. Development of innovative design strategies	4
7. Mid-review and critique	4
8. Prototype and spatial design development	4
9. Integration of technology and environmental systems	4
10. Design refinement and technical exploration	4
11. Development of spatial and experiential qualities	4
12. Preparation of visual communication and diagrams	4
13. Design iteration and feedback	4
14. Final project preparation	4
15. Final presentation and review	4
Total	60

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243334 3(1-4-4)

   Course Title Transdisciplinary Design

   การออกแบบเชื่อมข้ามศาสตร์

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course develops the collaborative competencies needed to address complex built environment challenges that cannot be resolved within a single discipline. Its inclusion is supported by the growing need to respond to climate change, urban transformation, public health, technological disruption, cultural change, and social inequality through integrated knowledge and collective action. It responds to stakeholder needs for graduates who can communicate across professional and academic boundaries, work with communities and non-academic partners, reconcile different forms of knowledge, and develop solutions grounded in real-world contexts. The course extends beyond interdisciplinary collaboration by involving relevant stakeholders in the production and application of knowledge, preparing students for cross-sector projects in community development, social innovation, environmental planning, public policy, and the built environment.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze complex built environment problems from multiple disciplinary perspectives.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Integrate academic, professional, and local knowledge into contextual design proposals.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate transdisciplinary design proposals across academic, professional, and community contexts.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate design proposals against ethical, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with diverse stakeholders in transdisciplinary design processes.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

สตูดิโอออกแบบ แนวคิดและกระบวนการออกแบบที่เชื่อมโยงองค์ความรู้จากศิลปะ วิทยาศาสตร์ เทคโนโลยี และสังคม การวิเคราะห์ปัญหาที่ซับซ้อน การทำงานแบบบูรณาการข้ามสาขา การพัฒนาแนวคิดและต้นแบบ การสื่อสารและนำเสนอแนวทางแก้ปัญหาในบริบทจริง

Design studio. Concepts and processes of transdisciplinary design integrating knowledge from art, science, technology, and society. Analysis of complex problems, collaborative and cross-disciplinary working methods, development of concepts and prototypes, and communication of solutions in real-world contexts.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243334

Course Title: Transdisciplinary Design

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to transdisciplinary design and complex systems	2
2. Integrating knowledge from art, science, technology, and society	2
3. Collaborative design methods and interdisciplinary teamwork	2
4. Systems thinking and problem framing	2
5. Case studies in transdisciplinary innovation	2
6. Ethics, social responsibility, and stakeholder engagement	2
7. Integrating multiple knowledge systems in design processes	2
8. Final lecture and synthesis discussion	1
Total	15
	Laboratory hours
1. Exploration of complex design challenges	4
2. Research and interdisciplinary precedent study	4
3. Problem framing and systems mapping	4
4. Collaborative concept generation	4
5. Development of integrated design strategies	4
6. Stakeholder analysis and participatory design	4
7. Mid-review and interdisciplinary critique	4
8. Design development and prototyping	4
9. Integration of environmental, social, and technological systems	4
10. Design refinement and evaluation	4
11. Visual communication and documentation	4
12. Iteration and collaborative feedback	4
13. Preparation of final design proposal	4
14. Final project preparation	4
15. Final presentation and review	4
Total	60

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243341 3(3-0-6)

   Course Title Energy and Environmental Modeling for High-Performance Design

   การจำลองพลังงานและสิ่งแวดล้อมเพื่อการออกแบบสมรรถนะสูง

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This elective course develops the analytical and digital competencies needed to evaluate and improve building performance during the design process. Its inclusion is supported by curriculum mapping within the Building Performance area and by increasing demands to reduce operational energy, carbon emissions, environmental impacts, and climate-related risks while maintaining occupant health and comfort. It responds to stakeholder needs from building users, developers, public authorities, environmental consultants, and built environment organizations for graduates who can interpret performance data, compare design alternatives, and communicate evidence-based recommendations to multidisciplinary teams. The course enables students to integrate simulation results into design decisions and prepares them for work and further study in high-performance buildings, environmental assessment, sustainable design, and building performance consultancy.

   6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain principles of building energy and environmental simulation.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Analyze relationships between building design parameters and environmental performance.	PLO 1: Analyze architectural and built environment issues by applying principles of

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
3) Use digital simulation tools for defined building performance studies.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Apply simulation results in high-performance design decisions.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
5) Communicate building performance findings through technical reports and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

หลักการจำลองพลังงานและสภาพแวดล้อมอาคาร การวิเคราะห์พลังงาน ความร้อน แสง และการระบายอากาศ การใช้เครื่องมือดิจิทัลเพื่อสนับสนุนการออกแบบอาคารสมรรถนะสูง การประยุกต์ผลการวิเคราะห์สู่การตัดสินใจเชิงออกแบบ

Principles of energy and environmental modeling. Analysis of building energy, thermal performance, lighting, and ventilation. Utilization of digital simulation tools to support high-performance building design. Application of analytical results in design decision-making.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243341

Course Title: Energy and Environmental Modeling for High-Performance Design

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to high-performance building design and simulation	3
2. Fundamentals of building energy performance	3
3. Climate analysis and environmental data for design	3
4. Thermal performance and heat transfer in buildings	3
5. Building energy modeling concepts and workflows	3
6. Simulation tools for energy analysis	3
7. Daylighting analysis and visual comfort	3
8. Natural ventilation and airflow simulation	3
9. Indoor environmental quality and occupant comfort	3
10. Passive design strategies and environmental optimization	3
11. Parametric analysis and performance-driven design	3
12. Integrating simulation into architectural design decisions	3
13. Case studies of high-performance buildings	3
14. Project discussion and modeling review	3
15. Final synthesis and presentation	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243342 3(3-0-6)
   Course Title Low Carbon Building
   อาคารคาร์บอนต่ำ
2. **This course belongs to the following undergraduate category :**
   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment
   ( ) Required Major Courses
   (✓) Elective Major Courses
   ( ) Free Electives
   ( ) Service Courses for Program..... Major.....
3. **Prerequisites** None
4. **Co-requisites** None
5. **Date of Course Preparation** 18th August 2026
6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course develops the knowledge and analytical competencies needed to reduce greenhouse gas emissions throughout the building life cycle. Its inclusion is supported by curriculum mapping within the Building Performance area and by the urgent need to address climate change, national and international decarbonization targets, rising energy demand, resource consumption, and carbon emissions from material production, construction, operation, maintenance, adaptation, and demolition. It responds to stakeholder needs from building users, developers, public authorities, material producers, environmental consultants, and built environment organizations for graduates who can identify carbon sources, compare design alternatives, and recommend practical reduction strategies. The course prepares students to integrate measurable carbon-reduction targets into design and decision-making and supports further work in sustainable design, environmental assessment, building performance, material selection, and climate-responsive development.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain principles of embodied and operational carbon in buildings.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Calculate building life-cycle carbon emissions using appropriate assessment tools.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Develop low-carbon strategies for defined building projects.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate carbon assessment findings through technical reports and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Evaluate design alternatives against national and international carbon-reduction targets.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

แนวคิดและหลักการอาคารคาร์บอนต่ำ การประเมินการปล่อยคาร์บอนตลอดวัฏจักรชีวิตอาคาร วัสดุ เทคโนโลยี และระบบอาคารเพื่อลดการปล่อยก๊าซเรือนกระจก การประยุกต์ใช้ในการออกแบบและก่อสร้างอย่างยั่งยืน

Concepts and principles of low-carbon buildings. Life-cycle carbon assessment of buildings. Materials, technologies, and building systems for reducing greenhouse gas emissions. Application in sustainable design and construction.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243342

Course Title: Low Carbon Building

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to climate change and the built environment	3
2. Carbon emissions in buildings and construction	3
3. Principles of low-carbon building design	3
4. Building life-cycle assessment and carbon accounting	3
5. Embodied carbon in building materials	3
6. Low-carbon material strategies and alternatives	3
7. Energy efficiency and operational carbon reduction	3
8. Passive design strategies for low-carbon buildings	3
9. Renewable energy integration in buildings	3
10. Building systems and technologies for carbon reduction	3
11. Carbon assessment tools and digital methods	3
12. Policy frameworks and low-carbon building standards	3
13. Case studies of low-carbon and net-zero buildings	3
14. Design strategies and project discussion	3
15. Course synthesis and presentation	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243343 3(3-0-6)

   Course Title Sustainable Building, Construction and Operation

   อาคาร การก่อสร้าง และการดำเนินงานอย่างยั่งยืน

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course develops an integrated understanding of sustainability across building design, construction, use, maintenance, adaptation, and end-of-life processes. Its inclusion is supported by curriculum mapping within the Building Performance area and by the need to reduce resource consumption, construction waste, operational inefficiency, maintenance burdens, and environmental impacts throughout the building life cycle. It responds to stakeholder needs from building users, owners, contractors, facility managers, public authorities, and built environment organizations for graduates who can connect design decisions with construction feasibility, operational requirements, user behavior, and long-term performance. The course prepares students for interdisciplinary work in sustainable construction, facility and asset management.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain sustainability principles across the building life cycle.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Assess resource use, waste, and operational performance in defined building projects.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Apply sustainability strategies in building construction and operations.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate sustainable construction and operational plans through technical documentation.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Evaluate building practices against ethical, environmental, and internationally recognized sustainability standards.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

หลักการความยั่งยืนในงานอาคารและการก่อสร้าง กระบวนการก่อสร้าง การจัดการทรัพยากร และการดำเนินงานอาคาร การบำรุงรักษาและการจัดการพลังงานเพื่อความยั่งยืนระยะยาว

Principles of sustainability in building design and construction. Construction processes, resource management, and building operation. Maintenance and energy management for long-term sustainability.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243343

Course Title: Sustainable Building, Construction and Operation

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to sustainability in the built environment	3
2. Sustainable development principles and global frameworks	3
3. Environmental impacts of construction	3
4. Sustainable construction materials and resource management	3
5. Construction processes and environmental management	3
6. Waste reduction and circular construction practices	3
7. Energy systems and building operational performance	3
8. Water efficiency and resource management in buildings	3
9. Indoor environmental quality and occupant well-being	3
10. Building maintenance and facility management	3
11. Life-cycle assessment in building design and operation	3
12. Sustainable building certification systems	3
13. Case studies of sustainable building projects	3
14. Strategies for integrating sustainability in projects	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243351 3(3-0-6)

   Course Title Spatial Analysis and Mapping Methods

   การวิเคราะห์เชิงพื้นที่และกระบวนการทำแผนที่

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** 01243251 Architecture and Built Environment Documentation

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This course builds upon the research competencies developed in Design and Environmental Research Methods by applying spatial analysis and mapping to the investigation of places, landscapes, and built environments. Its inclusion is supported by curriculum mapping, which identified the need for students to integrate spatial, environmental, social, cultural, and historical data before proposing design or planning interventions. It responds to stakeholder needs from communities, local authorities, planners, environmental organizations, heritage agencies, and built environment professionals for graduates who can collect and interpret spatial evidence, identify patterns and relationships, and communicate complex conditions clearly. The course prepares students to apply evidence-based spatial analysis in subsequent design modules, community and heritage projects, environmental planning, site assessment, and interdisciplinary decision-making.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze spatial relationships among environmental, social, cultural, and built conditions.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Use geographic information systems and mapping tools for defined spatial investigations.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Interpret spatial patterns from multiple data sources.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
4) Communicate spatial findings through appropriate maps and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

หลักการและวิธีการวิเคราะห์เชิงพื้นที่และการทำแผนที่ การรวบรวมและจัดการข้อมูลเชิงพื้นที่ การอ่านลักษณะทางกายภาพ สิ่งแวดล้อม สังคม วัฒนธรรม และประวัติศาสตร์ของพื้นที่ การสำรวจภาคสนาม ระบบสารสนเทศภูมิศาสตร์ การทำแผนที่เฉพาะเรื่อง การวิเคราะห์ซ้อนทับ การทำแผนที่แบบมีส่วนร่วม และการตีความรูปแบบและการเปลี่ยนแปลงเชิงพื้นที่ การใช้ข้อมูลเชิงพื้นที่ แผนที่ และสื่อภาพเพื่อสนับสนุนการออกแบบ การวางแผน และการตัดสินใจด้านสิ่งแวดล้อมสรรค์สร้าง

Principles and methods of spatial analysis and mapping. Collection and management of spatial data. Interpretation of the physical, environmental, social, cultural, and historical characteristics of places. Field surveys, geographic information systems, thematic mapping, overlay analysis, participatory mapping, and interpretation of spatial patterns and change. Use of spatial data, maps, and visual media to support built environment design, planning, and decision-making.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243351

Course Title: Spatial Analysis and Mapping Methods

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to Spatial Analysis and Mapping Methods and landscape systems	3
2. Physical landscape components: topography, hydrology, and climate	3
3. Ecological processes and environmental systems	3
4. Cultural landscapes and human settlement patterns	3
5. Methods of landscape observation and field survey	3
6. Spatial data and mapping techniques	3
7. Introduction to GIS for Spatial Analysis and Mapping Methods	3
8. Landscape character assessment	3
9. Environmental constraints and opportunities analysis	3
10. Visual Spatial Analysis and Mapping Methods and spatial perception	3
11. Cultural heritage and landscape interpretation	3
12. Landscape systems and regional analysis	3
13. Integrating Spatial Analysis and Mapping Methods into planning and design	3
14. Case studies of Spatial Analysis and Mapping Methods in practice	3
15. Course synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243352 3(3-0-6)

Course Title Impact Assessment and Policy

การประเมินผลกระทบและนโยบาย

2. This course belongs to the following undergraduate category :

(✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

(✓) Required Major Courses

( ) Elective Major Courses

( ) Free Electives

( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This course develops the analytical and policy literacy required to anticipate, evaluate, and manage the consequences of built environment interventions. Its inclusion is supported by curriculum mapping and by increasing regulatory and public expectations that development decisions address environmental, social, cultural, heritage, health, and economic impacts transparently before implementation. It responds to stakeholder needs from communities, public authorities, developers, heritage agencies, environmental organizations, and built environment professionals for graduates who can interpret policy and regulatory frameworks, identify affected groups, evaluate alternative proposals, and communicate evidence to support accountable decision-making. The course prepares students to integrate impact considerations into design, planning, heritage management, community development, and interdisciplinary policy processes.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain principles of environmental, social, cultural heritage, health, and economic impact assessment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply impact assessment methods to defined built environment projects.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Communicate impact assessment findings through professional reports and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate built environment projects against ethical, policy, regulatory, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Justify mitigation strategies based on impact assessment evidence.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.

7. Course Description

หลักการประเมินผลกระทบด้านสิ่งแวดล้อม มรดก สังคม และเศรษฐกิจ การวิเคราะห์นโยบายสาธารณะและการวางแผน การประยุกต์ใช้ในการพัฒนาโครงการและการตัดสินใจเชิงนโยบาย

Principles of environmental, heritage, social, and economic impact assessment. Analysis of public policy and planning processes. Application to project development and policy-related decision-making.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243352

Course Title: Impact Assessment and Policy

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to impact assessment in the built environment	3
2. Environmental impact assessment principles (EIA)	3
3. Social impact assessment and community considerations	3
4. Economic impact and development evaluation	3
5. Public policy frameworks affecting built environment development	3
6. Planning systems and regulatory processes	3
7. Environmental regulations and sustainability policies	3
8. Heritage impact assessment concepts and international frameworks	3
9. Methods for assessing impacts on cultural heritage and historic sites	3
10. Cultural landscapes and heritage-sensitive development	3
11. Stakeholder engagement and participatory processes	3
12. Risk assessment and mitigation strategies	3
13. Case studies of environmental and heritage impact assessments	3
14. Integrating impact assessment into design and planning decisions	3
15. Course synthesis and policy discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243371 3(3-0-6)

   Course Title Dialogue on global and contemporary challenges in Heritage Studies

   บทสนทนาว่าด้วยความท้าทายระดับโลกและร่วมสมัยในมรดกศึกษา

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This elective course strengthens the Heritage Ecosystem area by connecting architecture and built environment studies with current international and regional debates in heritage studies. Its inclusion is supported by curriculum mapping and by rapidly changing conditions affecting heritage, including climate change, urbanization, conflict, disaster, tourism pressure, displacement, digital transformation, contested histories, and demands for greater community participation and rights. It responds to stakeholder needs from communities, heritage authorities, public agencies, cultural organizations, researchers, and prospective employers for graduates who can interpret international frameworks, compare diverse perspectives, evaluate complex cases, and communicate informed positions on contemporary heritage issues. The course prepares students for advanced heritage studies, community-based projects, conservation planning, policy engagement, research, and interdisciplinary work in changing cultural and environmental contexts.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Explain major contemporary challenges within theoretical and policy frameworks in heritage studies.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
2) Analyze impacts of contemporary challenges on cultural, social, and environmental heritage systems.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
3) Compare heritage responses across diverse cultural, regional, and international contexts.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
4) Evaluate heritage policies and practices against ethical principles and international frameworks.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Communicate critical positions on contemporary heritage issues through appropriate academic media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.

7. Course Description

ประเด็นความท้าทายด้านมรดกในบริบทโลกและร่วมสมัย การเปลี่ยนแปลงสภาพภูมิอากาศ การพัฒนาเมือง ความขัดแย้ง และชุมชน การอภิปรายเชิงวิพากษ์และกรณีศึกษาในมรดกศึกษา

Examination of global and contemporary challenges in heritage studies. Climate change, urban development, conflict, and community issues. Critical discussions and case studies in heritage contexts.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243371

Course Title: Dialogue on global and contemporary challenges in Heritage Studies

Credits: 3(3-0-6)

Course Outline		Lecture Hours
1.	Introduction to global heritage discourse and international frameworks	6
2.	Climate change and heritage resilience	6
3.	Urban development, modernization, and heritage transformation	6
4.	Conflict, disaster, and post-crisis heritage recovery	6
5.	Community rights, participation, and people-centered approaches	6
6.	Tourism, globalization, and commercialization of heritage	6
7.	Ethics, authenticity, and contested heritage	6
8.	Student-led critical dialogues and case study presentations	3
	Total	45 Hours

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243372 3(3-0-6)

   Course Title Adaptive Reuse of Built Heritage

   การปรับเปลี่ยนประโยชน์ใช้สอยมรดกสถาปัตยกรรม

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This elective course strengthens the Heritage Ecosystem area by developing the knowledge and analytical competencies required to adapt built heritage for contemporary use while retaining its cultural significance. Its inclusion is supported by curriculum mapping and by current needs to conserve underused historic buildings, extend building life, reduce demolition and construction waste, and support heritage-led urban and community regeneration. It responds to stakeholder needs from communities, property owners, heritage authorities, local governments, conservation practitioners, and prospective employers for graduates who can assess heritage values, interpret regulatory and physical constraints, engage relevant stakeholders, and balance conservation principles with accessibility, safety, environmental performance, and new functional requirements. The course prepares students for heritage studios, conservation planning, community-based projects, sustainable development, and interdisciplinary work related to heritage management and adaptive reuse.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze heritage values, building conditions, and contextual constraints of built heritage.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop adaptive reuse proposals for defined built heritage contexts.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate adaptive reuse proposals through appropriate visual, written, and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate adaptive reuse interventions against ethical principles, cultural significance, and international conservation standards.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with relevant stakeholders in adaptive reuse processes.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

แนวคิดและหลักการปรับใช้ซ้ำอาคารมรดก การอนุรักษ์ควบคู่การใช้ประโยชน์ใหม่ การวิเคราะห์คุณค่าอาคาร กฎหมาย และบริบทชุมชน การประยุกต์สู่โครงการออกแบบ

Concepts and principles of adaptive reuse of built heritage. Integration of conservation and new uses. Analysis of heritage values, regulations, and community context. Application in design projects.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243372

Course Title: Adaptive Reuse of Built Heritage

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to heritage conservation and adaptive reuse concepts	3
2. Heritage values: architectural, historical, cultural significance	3
3. Heritage ecosystem approach: building, community, and environment	3
4. International principles and charters for heritage conservation	3
5. Legal frameworks and regulatory systems for heritage buildings	3
6. Documentation and analysis of historic buildings	3
7. Adaptive reuse strategies and design approaches	3
8. Case studies of adaptive reuse projects	3
9. Community engagement in heritage reuse projects	3
10. Economic and sustainability considerations in reuse	3
11. Site analysis and building assessment methods	3
12. Concept development for adaptive reuse projects	3
13. Design development and integration of new functions	3
14. Presentation methods for heritage reuse proposals	3
15. Final synthesis and discussion	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243373 3(1-4-4)

   Course Title Riverine Settlements and Water Heritage Landscapes

   ภูมิทัศน์มรดกทางน้ำและการตั้งถิ่นฐานริมน้ำ

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This elective course strengthens the Heritage Ecosystem area by examining riverine settlements and water heritage landscapes as interconnected ecological, cultural, and spatial systems. Its inclusion is supported by curriculum mapping and by the importance of rivers, canals, wetlands, and water-based communities in Thailand and the wider region, many of which are increasingly affected by flooding, drought, erosion, water pollution, infrastructure development, urbanization, tourism, and the loss of traditional knowledge. It responds to stakeholder needs from riverine communities, local governments, water management agencies, heritage authorities, environmental organizations, and prospective employers for graduates who can understand relationships among water systems, settlement patterns, livelihoods, architecture, cultural practices, and landscape change. The course prepares students for heritage management, climate adaptation, community-based planning, cultural landscape conservation, environmental research, and responsible spatial development in water-related contexts.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships among water systems, settlement patterns, livelihoods, cultural practices, and built forms.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply spatial, historical, and participatory methods in defined riverine landscape investigations.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate riverine heritage findings through appropriate maps, reports, and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate riverine development proposals against ethical, cultural, environmental, and internationally recognized heritage principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with riverine communities and relevant stakeholders in field-based learning processes.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

แนวคิดภูมิทัศน์มรดกทางน้ำ ระบบนิเวศ วัฒนธรรม และวิถีชีวิตริมน้ำ ความสัมพันธ์ระหว่างชุมชน เมือง และแม่น้ำ การวิเคราะห์และออกแบบเชิงมรดกในบริบทพื้นที่น้ำ

Concepts of riverine and water-based heritage landscapes. Ecological, cultural, and living systems along waterways. Relationships between communities, cities, and rivers. Heritage-based analysis and design in water-related contexts.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243373

Course Title: Riverine Settlements and Water Heritage Landscapes

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to riverine cultural landscapes and heritage-scapes	2
2. Ecological systems and hydrological dynamics of river environments	2
3. Historical development of riverine settlements in regional and global contexts	2
4. Cultural practices, livelihoods, and intangible heritage along waterways	2
5. Heritage ecosystem concepts and people-centered conservation	2
6. Urbanization, climate change, and transformation of waterfront communities	2
7. Heritage-based analysis and design strategies in water-related contexts	3
Total	15

Course Outline	Laboratory Hours
1. Mapping and documentation of riverine settlement morphology	10
2. Field survey and observation of water-based communities	10
3. Analysis of settlement patterns and heritage systems	10
4. Stakeholder and community-based assessment exercises	10
5. Development of heritage ecosystem framework for selected site	10
6. Design or planning proposal integrating riverine and water-based heritage concepts	10
Total	60

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243374 3(3-0-6)

Course Title Heritage Ecosystems : People, Nature and Culture Linkage

ระบบนิเวศมรดก ความเชื่อมโยงผู้คน ธรรมชาติ และวัฒนธรรม

2. This course belongs to the following undergraduate category :

(✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

( ) Required Major Courses

(✓) Elective Major Courses

( ) Free Electives

( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This elective course strengthens the Heritage Ecosystem area by examining heritage as a dynamic system formed through relationships among people, nature, culture, place, and historical processes. Its inclusion is supported by curriculum mapping and by contemporary heritage approaches that recognize the limitations of separating tangible from intangible heritage or cultural values from ecological systems. It responds to stakeholder needs from communities, heritage authorities, environmental organizations, local governments, cultural institutions, and prospective employers for graduates who can understand diverse heritage values, recognize community knowledge and practices, analyze human-environment relationships, and support inclusive and sustainable heritage management. The course prepares students for community-based conservation, cultural landscape management, environmental planning, heritage policy, adaptive reuse, research, and interdisciplinary work involving both cultural and natural heritage.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships among people, nature, culture, place, and historical processes in heritage landscapes.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply systems mapping and cultural landscape methods in defined heritage investigations.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate heritage ecosystem findings through appropriate maps, reports, and visual media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate heritage management approaches against ethical, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with communities and relevant stakeholders in heritage ecosystem investigations.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

แนวคิดระบบนิเวศมรดกและความเชื่อมโยงระหว่างผู้คน ธรรมชาติ และวัฒนธรรมในภูมิทัศน์มรดก การวิเคราะห์เชิงพื้นที่และกระบวนการทำแผนที่วัฒนธรรม ระบบนิเวศ และวิถีชีวิตชุมชน ความสัมพันธ์ระหว่างมรดก สิ่งแวดล้อม และสังคม กรณีศึกษาระดับสากล และการประยุกต์ใช้แนวคิดระบบนิเวศมรดกในการอนุรักษ์ การวางแผน และการออกแบบ

Concepts of heritage ecosystems and the linkages between people, nature, and culture in heritage landscapes. Analysis of cultural landscapes, ecological systems, and community practices. Relationships between heritage, environment, and society. International case studies and applications of ecosystem-based approaches in heritage conservation, planning, and design.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243374

Course Title: Heritage Ecosystems : People, Nature and Culture Linkage

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Heritage ecosystems and cultural landscapes	3
2. Concepts of people–nature–culture linkage	3
3. Cultural landscapes and heritage environments	3
4. Community knowledge and traditional practices	3
5. Environmental processes and ecological relationships	3
6. Heritage values and significance assessment	3
7. Heritage ecosystems and sustainable development	3
8. Community stewardship and participatory governance	3
9. Heritage, livelihoods, and cultural economy	3
10. Climate change and resilience in heritage landscapes	3
11. International case studies of heritage ecosystems	3
12. Field observation and heritage landscape documentation	3
13. Analysis of heritage ecosystem systems	3
14. Presentation of heritage ecosystem analysis	3
15. Course synthesis and reflection	3
Total	45

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243391 3(3-0-6)

   Course Title Cross-cultural Workshop in Architecture and Built Environment

   ปฏิบัติการเรียนรู้ข้ามวัฒนธรรมด้านสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

   6.1 Course Importance

This elective course strengthens the international and intercultural dimension of the program through intensive, project-based collaboration among students, instructors, partner institutions, and communities from different cultural backgrounds. Its inclusion is supported by curriculum mapping, the university's internationalization policy, existing academic partnerships and memoranda of understanding, and the need to create flexible opportunities for international learning beyond semester-long exchange programs. It responds to stakeholder needs for graduates who can communicate across cultures, respect diverse perspectives, adapt to unfamiliar contexts, collaborate in international teams, and address-built environment challenges through shared learning. The course supports academic network development and prepares students for international collaboration, further study, and multicultural work related to architecture and built environment.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze social, cultural, environmental, and spatial conditions within cross-cultural contexts.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop context-responsive design proposals through cross-cultural workshop processes.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate workshop processes and outcomes in international academic and professional settings.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate design approaches across diverse cultural and international contexts.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Collaborate with international and cross-disciplinary participants in workshop activities.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การเรียนรู้ผ่านการปฏิบัติการร่วมกับสถาบันหรือผู้เข้าร่วมจากต่างประเทศด้านสถาปัตยกรรมและสิ่งแวดล้อม สรรค์สร้าง การแลกเปลี่ยนองค์ความรู้ แนวคิด และประสบการณ์ข้ามวัฒนธรรม กระบวนการออกแบบ การทำงานเป็นทีมสหวิชาชีพ การสำรวจพื้นที่จริง การวิเคราะห์บริบททางสังคม วัฒนธรรม และสิ่งแวดล้อม การพัฒนาแนวคิดการออกแบบและการนำเสนอผลงานในบริบทนานาชาติ

Learning through practice-based workshops with international institutions or participants in architecture and built environments. Cross-cultural exchange of knowledge, ideas, and experiences. Design processes, interdisciplinary teamwork, field-based investigation, analysis of social, cultural, and environmental contexts. Development of design concepts and presentation in international settings.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243391

Course Title: Cross-cultural Workshop in Architecture and Built Environment

Credits: 3(3-0-6)

Course Outline		Lecture Hours
1.	Introduction to cross-cultural design framework and workshop objectives	3
2.	Global perspectives in architecture and built environment	6
3.	Understanding cultural, social, and environmental contexts	6
4.	Interdisciplinary teamwork and collaborative design process	6
5.	Field investigation and contextual analysis	6
6.	Development of design concepts in international teams	6
7.	Mid-review and cross-cultural feedback session	3
8.	Refinement of proposals and integration of global perspectives	6
9.	Final presentation in international workshop setting	3
	Total	45 hours

NEW COURSE PROPOSAL FORM

KU 1-1

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243392 3(1-4-4)

Course Title Individual study in Heritage Ecosystem

การศึกษาเฉพาะบุคคลด้านระบบนิเวศมรดก

2. This course belongs to the following undergraduate category :

(✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

( ) Required Major Courses

(✓) Elective Major Courses

( ) Free Electives

( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This elective course provides a flexible framework for students to undertake an in-depth, supervised investigation of a specific topic within Heritage Ecosystems that is not fully addressed in regular coursework. Its inclusion is supported by curriculum mapping and by the growing need to understand heritage as an interconnected system involving communities, cultural practices, architecture, landscapes, natural environments, and historical change. It responds to individual learning needs and stakeholder demand from communities, heritage authorities, local governments, cultural organizations, and prospective employers for graduates who can investigate heritage values, engage relevant stakeholders, integrate different forms of knowledge, and develop context-sensitive approaches to conservation and management. The course supports advanced specialization and prepares students for heritage research, conservation planning, cultural landscape management, community-based projects, final-year work, further study, and interdisciplinary heritage practice.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships among heritage values, communities, landscapes, and environmental systems.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply appropriate research, analytical, documentation, or design methods.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
3) Develop a research report, spatial analysis, management proposal, documentation record, or design project.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate study findings through appropriate academic and professional media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Evaluate heritage approaches against ethical, cultural, environmental, and internationally recognized principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
6) Manage a supervised individual study process responsibly.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การศึกษาเชิงลึกด้านมรดกวัฒนธรรม ภูมิทัศน์มรดก และระบบนิเวศมรดก การวิเคราะห์ความสัมพันธ์ระหว่างมรดก ชุมชน และสิ่งแวดล้อม ภายใต้การดูแลของอาจารย์ที่ปรึกษา

Independent study on heritage ecosystems. Analysis of cultural heritage, heritage landscapes, and relationships between heritage, communities, and the environment under academic supervision.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243392

Course Title: Individual study in heritage ecosystem

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to heritage ecosystem framework and topic selection	3
2. Literature review and conceptual framework development	3
3. Research or design methodology planning	3
4. Analytical approach and ethical considerations in heritage studies	3
5. Final synthesis, presentation preparation, and academic reporting	3
Total Lecture Hours	15

Course Outline	Laboratory Hours
1. Field observation or case documentation	6
2. Data collection and mapping	6
3. Analytical exercises and interpretation	6
4. Development of design, conservation, or planning proposal	6
5. Final presentation and critique	6
Total Laboratory Hours	30
Grand Total	45 hours

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243393 3(1-4-4)

   Course Title Individual study in Building Tech

   การศึกษาเฉพาะบุคคลด้านเทคโนโลยีอาคาร

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course provides a flexible framework for students to undertake an in-depth, supervised investigation of a specific topic in building technology that is not fully addressed within regular coursework. Its inclusion is supported by curriculum mapping and by the rapid development of building systems, materials, construction methods, environmental simulation, energy performance, digital technologies, and sustainable building practices. It responds to individual learning needs and stakeholder demand for graduates who can investigate technical problems independently, evaluate evidence, work with specialists, and apply emerging knowledge to built environment challenges. The course supports advanced specialization and prepares students for research-informed design, building performance evaluation, final-year projects, further study, and interdisciplinary work in high-performance and sustainable building development.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Define a focused building technology problem for supervised investigation.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply appropriate analytical, experimental, simulation, or technical assessment methods.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Develop a technical report, prototype, simulation, or performance-based design proposal.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate technical findings through appropriate professional media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Manage a supervised individual study process responsibly.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การศึกษาเชิงลึกตามความสนใจเฉพาะด้านเทคโนโลยีอาคาร การวิเคราะห์ระบบอาคาร พลังงาน วัสดุ และสมรรถนะอาคาร ภายใต้การกำกับดูแลของอาจารย์ที่ปรึกษา เพื่อเตรียมความพร้อมสู่การวิจัยหรือโครงการขั้นสูง

Individual study in building technology. In-depth investigation of building systems, energy, materials, and performance under faculty supervision to prepare for advanced research or projects.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243393

Course Title: Individual study in Building Tech

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to Design for Building Tech framework and topic selection	3
2. Literature review and conceptual framework development	3
3. Research or design methodology planning	3
4. Analytical approach and ethical considerations in heritage studies	3
5. Final synthesis, presentation preparation, and academic reporting	3
Total Lecture Hours	15

Course Outline	Laboratory Hours
1. Field observation or case documentation	6
2. Data collection and mapping	6
3. Analytical exercises and interpretation	6
4. Development of design, conservation, or planning proposal	6
5. Final presentation and critique	6
Total Laboratory Hours	30
Grand Total	45 hours

NEW COURSE PROPOSAL FORM

KU 1-1

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243394 3(1-4-4)

Course Title Individual study in Design for Well-Being

การศึกษาเฉพาะบุคคลด้านการออกแบบเพื่อสุขภาวะ

2. This course belongs to the following undergraduate category :

(✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

( ) Required Major Courses

(✓) Elective Major Courses

( ) Free Electives

( ) Service Courses for Program..... Major.....

3. Prerequisites None

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This elective course provides a flexible framework for students to undertake an in-depth, supervised investigation of a specific topic within Design for Well-Being that is not fully addressed in regular coursework. Its inclusion is supported by curriculum mapping and by growing concerns related to public health, population ageing, accessibility, mental health, environmental quality, social inclusion, and the interconnected health of people, animals, and ecosystems. It responds to individual learning needs and stakeholder demand for graduates who can investigate diverse user experiences, evaluate relationships between spatial conditions and well-being, engage relevant communities and specialists, and apply evidence to design decisions. The course supports advanced specialization and prepares students for evidence-based design, community and health-related projects, final-year work, further study, and interdisciplinary collaboration in healthy and inclusive built environments.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze a defined relationship between built environment conditions and well-being.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply appropriate human-centered, environmental, or design research methods.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Develop an evidence-based research report, design proposal, guideline, or prototype.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
4) Communicate study findings through appropriate professional media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
5) Evaluate study outcomes against ethical, inclusive, environmental, and internationally recognized well-being principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
6) Manage a supervised individual study process responsibly.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การศึกษาเฉพาะบุคคลด้านการออกแบบที่ส่งเสริมสุขภาพและสุขภาวะของผู้ใช้และสิ่งแวดล้อม การบูรณาการแนวคิด ความเป็นอยู่ที่ดี สุขภาพหนึ่งเดียว และการออกแบบเชิงมนุษย์เป็นศูนย์กลาง

Individual study in design of health and well-being of users and the environment, integrating the concepts of well-being, One Health, and human-centered design.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243394

Course Title: Individual study in Design for Well-Being

Credits: 3(1-4-4)

Course Outline	Lecture Hours
1. Introduction to Design for Well-Being framework and topic selection	3
2. Literature review and conceptual framework development	3
3. Research or design methodology planning	3
4. Analytical approach and ethical considerations in heritage studies	3
5. Final synthesis, presentation preparation, and academic reporting	3
Total Lecture Hours	15

Course Outline	Laboratory Hours
1. Field observation or case documentation	6
2. Data collection and mapping	6
3. Analytical exercises and interpretation	6
4. Development of design, conservation, or planning proposal	6
5. Final presentation and critique	6
Total Laboratory Hours	30
Grand Total	45 hours

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243395 1-6

   Course Title Study Abroad

   การศึกษาในต่างประเทศ

2. **This course belongs to the following undergraduate category :**

   ( ) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   ( ) Elective Major Courses

   (✓) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course strengthens the international dimension of the program by providing a structured framework for students to undertake academic study at overseas partner institutions and transfer relevant learning into their degree program. Its inclusion is supported by the university's internationalization policy, existing academic partnerships and memoranda of understanding, and curriculum mapping that identifies global and intercultural competence as essential for contemporary built environment education. It responds to stakeholder needs from students, partner universities, public and private organizations, and prospective employers for graduates who can communicate across cultures, adapt to unfamiliar academic and social environments, collaborate in international teams, and compare design, technological, environmental, and professional approaches across different contexts. The course prepares students for international collaboration, further study, and careers involving multicultural and cross-border built environment projects.

6.2 Student Learning Outcomes

1. Collaborate effectively with people from diverse cultural backgrounds.
2. Present learning experiences gained from overseas educational institutions using contemporary information technologies.

7. Course Description

การเรียนรู้และพัฒนาตนเองจากรายวิชาที่ลงทะเบียนในมหาวิทยาลัยต่างประเทศ การเทียบเคียงหน่วยกิตเป็นไปตามเกณฑ์ของมหาวิทยาลัยเกษตรศาสตร์

Learning and self-development from courses taken in oversea university. Credit equivalence according to Kasetsart University regulation.

8. Course Coordinator

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

NEW COURSE PROPOSAL FORM

KU 1-1

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243396 1-15

   Course Title Body of Knowledge from Overseas Studies

   องค์ความรู้จากการศึกษาในต่างประเทศ

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course strengthens the international dimension of the program by providing a structured framework for students to undertake academic study at overseas partner institutions and transfer relevant learning into their degree program. Its inclusion is supported by the university's internationalization policy, existing academic partnerships and memoranda of understanding, and curriculum mapping that identifies global and intercultural competence as essential for contemporary built environment education. It responds to stakeholder needs from students, partner universities, public and private organizations, and prospective employers for graduates who can communicate across cultures, adapt to unfamiliar academic and social environments, collaborate in international teams, and compare design, technological, environmental, and professional approaches across different contexts. The course prepares students for international collaboration, further study, and careers involving multicultural and cross-border built environment projects.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Relate knowledge gained from courses undertaken overseas to relevant principles and theories in architecture and the built environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Present learning experiences relevant to architecture and the built environment through appropriate academic media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written,

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	and oral methods, including effective use of digital technologies.
3) Collaborate effectively with people from diverse cultural backgrounds.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

ความรู้ในสาขาวิชาสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง ในระดับปริญญาตรี ที่นิสิตลงทะเบียนเรียนในมหาวิทยาลัยหรือสถาบันในต่างประเทศ การเทียบเคียงหน่วยกิตเป็นไปตามเกณฑ์ของมหาวิทยาลัยเกษตรศาสตร์

Knowledge in architecture and environment built at the bachelor's degree level taken in overseas universities or institutes. Credit equivalence according to Kasetsart University regulation.

8. Course Coordinator

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243398 3(3-0-6)

   Course Title Special Problem

   ปัญหาพิเศษ

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Courses

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course provides a flexible academic framework for students to investigate a specific or emerging problem in architecture and the built environment that is not fully addressed in regular coursework. Its inclusion is supported by curriculum mapping and by the need to accommodate changing social, environmental, cultural, and technological issues, as well as students' individual academic interests. It responds to stakeholder needs for graduates who can define relevant problems, investigate them independently, evaluate information critically, and communicate evidence-based findings. The course strengthens self-directed learning, academic responsibility, analytical thinking, and research communication, while supporting further study, interdisciplinary project development, and the application of specialized knowledge to real-world built environment challenges.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Conduct research on topics related to their field of study	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.
2) Use research methods to prepare reports and presentations	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that respond to functional, environmental, cultural, and contextual requirements.

7. **Course Description**

การศึกษาค้นคว้าทางสถาปัตยกรรมและสิ่งแวดล้อมสรรค์สร้าง ระดับปริญญาตรีและเรียบเรียงเขียนเป็นรายงาน

Study and research in architecture and built environment at the bachelor's degree level and compile into a written report.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243398

Course Title: Special Problem

Credits: 3(3-0-6)

Course Outline	Lecture Hours
1. Introduction to special problem framework and topic selection	3
2. Defining research questions and project objectives	3
3. Literature review and conceptual framework development	6
4. Research design and methodology selection	6
5. Data collection techniques and fieldwork planning	6
6. Data analysis and interpretation	6
7. Synthesis of findings and development of conclusions or design proposals	6
8. Academic writing structure and report preparation	3
9. Visual presentation and communication techniques	3
10. Final presentation and discussion	3
Total	45 hours

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243461 3(3-0-6)

   Course Title Management and Entrepreneurship in Built Environment
   การจัดการและการเป็นผู้ประกอบการด้านสิ่งแวดล้อมสรรค์สร้าง

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This course develops the management and entrepreneurial competencies required to translate built environment knowledge into feasible projects, services, organizations, and socially responsible initiatives. Its inclusion is supported by curriculum mapping and stakeholder demand for graduates who can manage resources, coordinate multidisciplinary teams, understand organizational and economic conditions, communicate with clients and partners, and respond innovatively to changing social, environmental, and market needs. It also supports the program's flexible career orientation by preparing students for employment, self-employment, social enterprise, project-based work, and further business development beyond conventional architectural practice. The course prepares students to lead or support projects in design, heritage, sustainability, community development, environmental services, property and facility management, and other built environment sectors.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze the feasibility of built environment initiatives within social, environmental, and economic conditions.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Apply financial, organizational, and project-planning tools to defined built environment initiatives.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate business or project proposals to relevant clients, partners, and stakeholders.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate management and entrepreneurial decisions against ethical, social, environmental, and internationally recognized professional principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Manage a team-based built environment project process responsibly.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

หลักการบริหารจัดการ โครงสร้างธุรกิจ และผู้ประกอบการในสาขาสิ่งแวดล้อมสรรค์สร้าง การพัฒนาแนวคิดธุรกิจ การจัดการโครงการ และนวัตกรรม

Principles of management and entrepreneurship in built environment sector. Business development, project management, and innovation in professional practice.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243461

Course Title: Management and Entrepreneurship in Built Environment

Credits: 3(3-0-6)

Course Outline		Lecture Hours
1.	Introduction to professional practice and built environment industries	3
2.	Management principles in architecture and built environment practice	3
3.	Business structures and organizational models	3
4.	Entrepreneurship and innovation in design professions	3
5.	Business opportunity analysis and value creation	3
6.	Project management concepts and tools	3
7.	Financial planning and budgeting for projects	3
8.	Marketing strategies and professional branding	3
9.	Legal frameworks and professional ethics	3
10.	Innovation and technology in built environment enterprises	3
11.	Case studies of entrepreneurial practices	3
12.	Business model development workshop	3
13.	Project proposal preparation	3
14.	Presentation and critique of business concepts	3
15.	Course synthesis and discussion	3
	Total	45

NEW COURSE PROPOSAL FORM

KU 1-1

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243491 2 (0-4-4)

   Course Title Individual Study Preparation for Capstone Project

   การเตรียมการศึกษาเฉพาะบุคคลสำหรับโครงงานสรุปการศึกษา

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   ( ) Required Major Course

   (✓) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

6.1 Course Importance

This elective course provides a structured transition from Design Module VI : Integration and Impact to the Capstone Project. Its inclusion is supported by curriculum mapping, which identified the need for students to establish a clear, relevant, and feasible project direction before undertaking independent senior-level work. It responds to stakeholder expectations that graduates can define complex built environment problems, formulate appropriate research or design questions, evaluate relevant literature and precedents, identify users and affected stakeholders, and plan projects that can be completed within available time and resources. The course ensures alignment among the proposed topic, stakeholder needs, program learning outcomes, methods, expected outputs, and assessment criteria, thereby supporting the successful completion of the Capstone Project.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze a defined research or design problem in architecture or the built environment.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop a structured and feasible capstone project proposal with appropriate research, analytical, and digital methods.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate the proposed project through professional written, visual, and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate the proposed project against ethical, social, cultural, environmental, and internationally recognized professional principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Manage the preparation of an independent project within defined time and resource constraints.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การเตรียมโครงงานสรุปการศึกษา การพัฒนาหัวข้อวิจัย ระเบียบวิธีวิจัย และกรอบแนวคิด โดยการปรึกษากับอาจารย์ที่ปรึกษา

Preparation for capstone work. Development of research topics, methods, and conceptual frameworks in consultation with an advisor.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243491

Course Title: Individual Study Preparation for Capstone Project

Credits: 2 (0-4-4)

Course Outline	Laboratory Hours
1. Introduction to proposal development and topic scoping	4
2. Problem definition and research question formulation	4
3. Literature review and conceptual framework development	6
4. Methodology planning and research design	6
5. Project structure, timeline, and feasibility assessment	4
6. Proposal writing workshop and feedback session	4
7. Proposal presentation and defense	2
Total	30

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. Course Code 01243492 5(0-10-6)

   Course Title Capstone Project

   โครงงานสรุปการศึกษา

2. This course belongs to the following undergraduate category :

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. Prerequisites 01243322 Design Module VI : Integration and Impact

4. Co-requisites None

5. Date of Course Preparation 18th August 2026

6. Objectives for Opening New Course

6.1 Course Importance

This required course is the culminating academic experience of the program, enabling students to integrate and demonstrate competencies developed in design, environmental analysis, technology, heritage ecosystems, well-being, research, communication, and project management. Its inclusion is supported by curriculum mapping, which identified the need for a final independent project that provides direct evidence of students' achievement of the program learning outcomes. Building upon the approved proposal developed in Preparation for Capstone Project, students address a relevant built environment issue informed by contextual evidence and stakeholder needs. The course enables students to demonstrate critical thinking, interdisciplinary integration, ethical responsibility, self-directed learning, and professional communication, preparing them for built environment careers, community and organizational work, entrepreneurship, or further academic study.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Diagnose a complex architectural or built environment problem through contextual evidence.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.
2) Develop a comprehensive design or research project through appropriate analytical, technical, and digital methods.	PLO 2: Apply appropriate design, analytical, and digital tools to develop, evaluate, and present built environment solutions that

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
	respond to functional, environmental, cultural, and contextual requirements.
3) Communicate project concepts, processes, findings, and outcomes through professional visual, written, and oral media.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
4) Evaluate project impacts against ethical, social, cultural, environmental, and internationally recognized professional principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
5) Justify project decisions through contextual evidence and professional standards.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
6) Manage an independent capstone project within defined time, resource, and academic requirements.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

โครงงานบูรณาการความรู้และทักษะตลอดหลักสูตร การพัฒนาโครงการออกแบบหรือวิจัยที่สะท้อนสมรรถนะของผู้เรียน ภายใต้การกำกับดูแลของอาจารย์ที่ปรึกษา

Capstone project integrating knowledge and skills acquired throughout the program. Development of a design or research project demonstrating student competency under faculty supervision.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243492

Course Title: Capstone Project

Credits: 5(0-10-6)

Course Outline	Laboratory Hours
1. Project briefing, scope definition, and advisor consultation	10
2. Site/context analysis and problem identification	20
3. Concept development and research framework refinement	25
4. Preliminary design or research development	25
5. Mid-review and critical feedback session	10
6. Detailed development of design or research outcomes	30
7. Technical integration, environmental evaluation, and feasibility study	15
8. Final synthesis, documentation preparation, and portfolio compilation	10
9. Final presentation and defense	5
Total	150

KU 1-1

NEW COURSE PROPOSAL FORM

Undergraduate Level

Faculty of Architecture Bangkhen Campus

Credits (Lecture Hours-Laboratory Hours-Self Study Hours)

1. **Course Code** 01243493 1(1-0-4)

   Course Title International Seminar on Regenerative Futures and Global Perspectives

   สัมมนานานาชาติว่าด้วยอนาคตเชิงฟื้นฟูและมุมมองระดับโลก

2. **This course belongs to the following undergraduate category :**

   (✓) Major courses in program Bachelor of Science Major Architecture and Built Environment

   (✓) Required Major Courses

   ( ) Elective Major Courses

   ( ) Free Electives

   ( ) Service Courses for Program..... Major.....

3. **Prerequisites** None

4. **Co-requisites** None

5. **Date of Course Preparation** 18th August 2026

6. **Objectives for Opening New Course**

   6.1 Course Importance

This required course provides an international forum for students to examine regenerative futures and position their Capstone Projects within wider global debates. Its inclusion is supported by curriculum mapping, the international orientation of the program, and the need for graduates to respond to interconnected challenges such as climate change, ecological degradation, social inequality, technological transformation, cultural change, and urban resilience. It responds to stakeholder needs from students, international academic partners, communities, public agencies, and built environment organizations for graduates who can compare global and local perspectives, communicate across cultures, evaluate the wider impacts of their work, and incorporate diverse feedback into project development. The course strengthens critical reflection, international communication, and academic networks while providing evidence of students' ability to situate local built environment proposals within global contexts.

6.2 Student Learning Outcomes

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
1) Analyze relationships between global challenges and local built environment conditions.	PLO 1: Analyze architectural and built environment issues by applying principles of design, environmental analysis, and sustainability to explain relationships between people, place, and environment accurately.

Course Learning Outcomes (CLOs)	Program Learning Outcomes (PLOs)
2) Communicate critical perspectives on regenerative futures in an international academic setting.	PLO 3: Communicate design concepts, analytical findings, and project outcomes clearly and professionally using visual, written, and oral methods, including effective use of digital technologies.
3) Evaluate local built environment proposals against diverse international perspectives and regenerative principles.	PLO 4: Evaluate architectural and built environment decisions by considering ethical principles, social responsibility, intercultural sensitivity, and environmental impacts to justify solutions based on professional and ethical standards.
4) Reflect on international feedback relevant to capstone project development.	PLO 5: Demonstrate responsibility, teamwork, self-management, and reflective learning skills by planning work, collaborating with others, and improving performance through self-assessment and continuous learning.

7. Course Description

การสัมมนาทางวิชาการระดับนานาชาติด้านการออกแบบเชิงฟื้นฟู ความยั่งยืน และประเด็นระดับโลก การแลกเปลี่ยนความรู้กับนักวิชาการและผู้เชี่ยวชาญจากนานาชาติ

International academic seminar focusing on regenerative futures, sustainability, and global perspectives. Knowledge exchange with international scholars and professionals.

8. Course Instructors

Details as shown in curriculum document section 5.1.3

9. Curriculum to Course Learning Outcomes Mapping Table

Details as shown in curriculum document appendix 1

Course Outline

Course Code: 01243493

Course Title: International Seminar on Regenerative Futures and Global Perspectives

Credits: 1(1-0-4)

Course Outline		Lecture Hours
1.	Introduction to regenerative futures and global sustainability discourse	3
2.	Global case studies in regenerative design and sustainable built environments	3
3.	Climate change, resilience, and regenerative development strategies	3
4.	Cultural landscapes, community-based regeneration, and global-local perspectives	3
5.	Reflection on international lectures, and synthesis of global insights	3
	Total	15