

Master of Architecture in Building Technology

Overall

The main goal of Master of Architecture in Building Technology is to provide graduate education focusing on the research and applied design. Our missions is to provide higher education for understanding building technology issues and pursue new knowledge to appropriately serve needs in building problems with in the local and regional context. The graduates of the program will be able to serve building technology industry as architect engineer and academic positions with their knowledge and critical thinking skills.

Program curriculum and structure

	Credits		
	Type A1	Type A2	Type B
Total Required Credits	36	36	36
1) Core courses	Audit	15	15
2) Elective courses	-	9	15
3) Thesis	36	12	-
4) Independent courses	-	-	6

Program courses

Core courses

810 701	Building Technology	3(3-0-6)
810 702	Research Methodology in Building Technology	3(3-0-6)
810 703	Technology in Vernacular Architecture	3(3-0-6)
810 704	Architecture for Energy and Environment Conservation	3(3-0-6)
810 891	Seminar in Building Technology I	1(1-0-5)
810 892	Seminar in Building Technology II	2(2-0-5)

Elective courses

810 711	Integrated Building Technology	3(3-0-6)
810 712	Natural Ventilation in Architecture	3(3-0-6)
810 721	Lighting in Architecture	3(2-3-5)
810 722	Building Materials	3(2-3-5)

810 723	Tools and Methods for Energy and Environment Simulations in Building	3(2-3-5)
804 734	Urban Ecology	3(3-0-6)
810 731	Energy management in Building	3(2-3-5)
810 894	Special Topics in Building Technology I	3(3-0-6)
810 895	Special Topics in Building Technology II	3(3-0-6)

Thesis

810 898	For Plan A1 Thesis	36 credits
810 899	For Plan A2 Thesis	12 credits

Independent courses

810 897	For Plan B Independent Study	6 credits
---------	--	-----------

Suggested study plan

Year 1 Semester 1		Credits		
		A1	A2	B
810 898	Thesis	9	-	-
810 701	Building Technology	-	3(3-0-6)	3(3-0-6)
810 702	Research Methodology in Building Technology	-	3(3-0-6)	3(3-0-6)
810 703	Technology in Vernacular Architecture	-	3(3-0-6)	3(3-0-6)
810 891	Seminar in Building Technology I	-	1(1-0-5)	1(1-0-5)
Year 1 Semester 2		Credits		
		A1	A2	B
810 898	Thesis	9	-	-
810 892	Seminar in Building Technology 2	-	2(-0-5)	2(-0-5)
810 XXX	Elective	-	3	3
810 XXX	Elective	-	3	3
810 XXX	Elective	-	-	3
Year 2 Semester 1		Credits		

		A1	A2	B
810 898	Thesis	9	-	-
810 704	Architecture for Energy and Environment Conservation	-	3(3-0-6)	3(3-0-6)
810 899	Thesis	-	3	-
810 XXX	Elective	-	3	3
810 XXX	Elective	-	-	3
Year 2 Semester 2		Credits		
		A1	A2	B
810 898	Thesis	9	-	-
810 899	Thesis	-	9	-
810 897	Independent Study	-	-	6

Course Descriptions

<p>804 734 Urban Ecology</p> <p>Concepts, theories, structures, functions and systems related to urban ecology. Exploring examples of conservation and development plan of urban ecology in Thailand and abroad.</p>
<p>810 701 Building Technology</p> <p>History and evolution of building technology in different topics such as concept and theory in science and building technology that relate to building materials, environmental control systems, technological applications for energy saving in buildings, and building technology case studies.</p>
<p>810 702 Research Methodology in Building Technology</p> <p>Type of research, problem identification, formulation of research conceptual framework, hypothesis, research design, data collection and data processing, selection of statistical methods, data analysis and interpretation, research application in building technology, presentation and writing research report, evaluation, and ethics in research, application of computer programs in research.</p>
<p>810 703 Technology in Vernacular Architecture</p> <p>Basic Knowledge in vernacular architecture and Indigenous technology related to vernacular architecture, which includes materials, construction, structure, environment, and comfort zone in building by analysis research from case studies.</p>
<p>810 704 Architecture for Energy and Environment Conservation</p> <p>Green architecture, efficiency of energy use in buildings, building materials and energy consumption, assessment of environment affect from energy use in building and architectural design for energy and environmental conservation.</p>

810 711	Integrated Building Technology	The integration of architectural design with building technology, which includes construction technology, structural technology and building systems technology.
810 712	Natural Ventilation in Architecture	Natural ventilation in building including air movement, theory and calculation methods in natural ventilation, air movement simulations, and research method in natural ventilation in building.
810 721	Lighting in Architecture	Lighting theory, daylighting and artificial lighting on both the quantity and quality of lighting as an integrated part of architecture.
810 722	Building Material	History and development of building materials. Material property. Material production. Material and environmental impacts. Applying materials in building and case study.
810 723	Tools and Methods for Energy and Environment Simulations in Building	Tool utilization and simulation methods for energy and building environment.
810 731	Energy Management in Building	Energy consumption in buildings. Energy auditing and improving for buildings. Energy planning and management. Energy Laws. Standards for energy management. Energy economics and environment in buildings.
810 891	Seminar in Building Technology 1	Discussion in topics related to building technologies and research in building technology.
810 892	Seminar in Building Technology 2	Discussion in topics related to building technologies and research in building technology.
810 894	Special Topics in Building Technology I	Various special topics in building technology and research in building technology.
810 895	Special Topics in Building Technology II	Various special topics in building technology and research in building technology.
810 897	Independent Study 6 credits	Independent study and research of special topics to building technology.
810 898	Thesis 36 credits	Defining research problem, designing and developing a research proposal,

conducting research, and writing a research report.

810 899 Thesis 12 credits

Defining research problem, designing and developing a research proposal,
conducting research, and writing a research report.