

WELCOME

TO

DBTM

THAMMASAT!

© Faculty of Architecture and Planning, Thammasat University

Address: Faculty of Architecture and Planning
Thammasat University, Rangsit Center
99 Moo 18, Khlong Nueng, Khlong Luang,
Pathumthani, 12121, Thailand

Telephone: +66 (0) 2-986-9605-6 Ext. 4026/ 4030
+66 (0) 80-271-1310

Fax: +66 (0) 2-986-8067

Email: dbtm@ap.tu.ac.th

Website: www.tds.tu.ac.th/programs-dbtm/

Facebook: www.facebook.com/DBTMprogram

Bachelor's & Master's International Programs in Design, Business & Technology Management

Design has a new role to play in addressing the world's ever more complex challenges and is moving from a largely "additive" to a "transformative" role.

The essence of the design process is becoming an increasingly important component, not only of the classical design arts, but is spreading into technology and business sectors.

The new business and economic models and ever-expanding global connections require a new generation of creative thinkers that can design, manage and anticipate our needs.

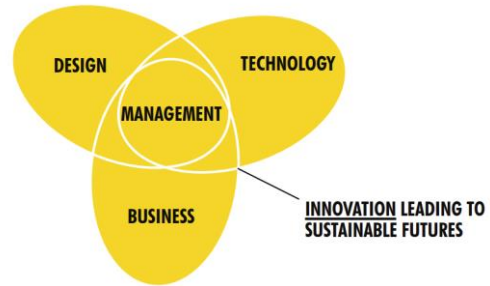
What is DBTM?

The integrated Bachelor's and Master's Program in Design, Business & Technology Management (DBTM) at Thammasat University is a joint effort of the Faculty of Architecture & Planning in collaboration with the School of Design at the Hong Kong Polytechnic University.

The intent of the program is to teach students not only how to create innovative products, services, and strategies, but also how to help organizations develop new business models for the future. DBTM's mission is to nurture a *new generation of professional pioneers* that have the vision and the skills needed to respond to the challenges of our increasingly complex global society in a sustainable and ethical manner.

The DBTM program bridges the disciplines of design, business and technology management

and focuses on interdisciplinary collaboration. It emphasizes the importance of design as a core factor for sustainable innovation while developing a broader range of competencies in order to promote a deeper understanding of transformative issues that are affecting innovation for the future.



How is the program taught?

The integrated DBTM program is an *international 3.5-year bachelor's and a 1.5-year master's program*.

It encompasses a wide array of courses that emphasize interdisciplinary collaboration, hands-on experience and the integration of design thinking in the innovation management in 3 major scales from *project, organization and strategy*. Free elective studies are chosen from the curriculum offered by Thammasat University; other alternatives include exchange programs at one of the partner universities.

The three-and-a-half-year bachelor's curriculum incorporates a wide array of courses from foundations a design basics such as *History of Art and Design, Value Creation Economy, Visual Communication Design* in Year 1 to *Psychology and Behavioral Design, Design Business and Industry, Environmental Design* as well as *Design and Materials and Design and Production Technology* in Year 2. Year 3 courses cover *Marketing Research and Digital and Information Technology* while *Social Innovation and Social Entrepreneurship* is explored in Year 4. The core innovation workshops for each semester are *Inclusive Design Innovation and Environmental and Eco-Design Innovation* in Year 2, *Service Design Innovation* in Year 3 and *Social Innovation and Social Entrepreneurship* in Year 4.

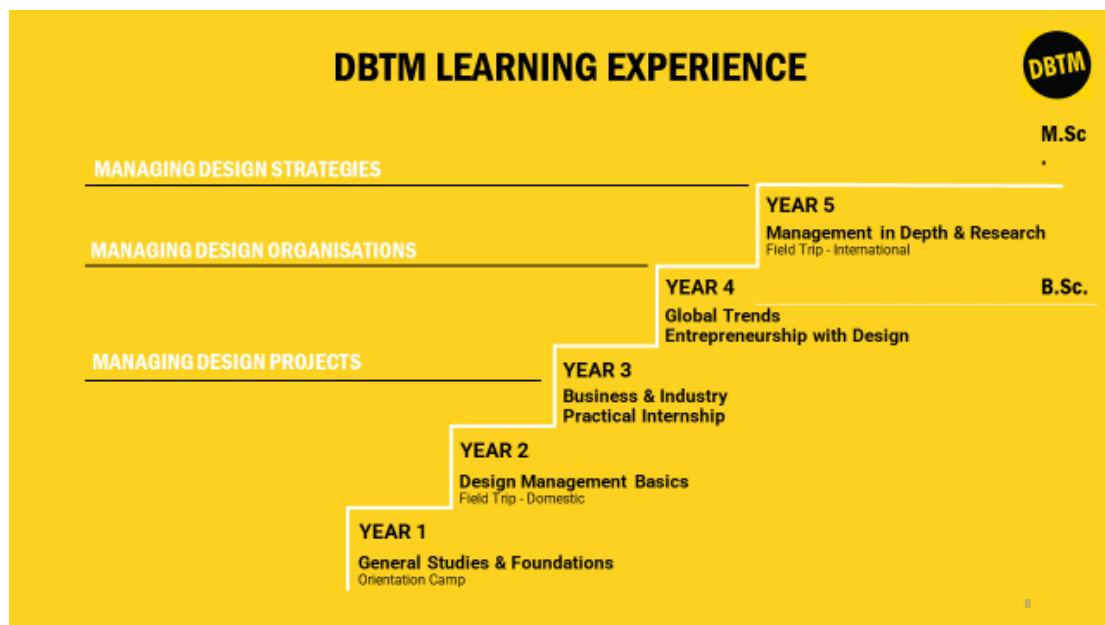
DBTM will also bring together the most experienced educators and practitioners from different innovative organizations and businesses. With these academic-corporate partners, students will have an opportunity to learn and collaborate with an exclusive and diverse network while exploring potential career paths for practical internship with *Friends of DBTM*.

The one-and-a-half-year master's program provides the students with the opportunity to focus in more depth on the three significant areas of *wellbeing, sustainability and digital integration* before integrating the acquired knowledge in their final thesis/ individual study using the appropriate research methodologies. At the master's degree level, students will have the opportunity to join *exchange programs* with an international partner universities or institutions. DBTM nurtures a creative learning experience through discussion-based courses, case studies, and project-based learning, emphasizing both individual and team work.

What are the career prospects?

DBTM students will graduate with a solid foundation in design, business and technology management which enables them to *create their own career trajectory* rather than following established paths. The combination of conceptual, technical and managerial skills enables them to *conceptualize and shape innovative solutions*, which in turn ensure the competitiveness of the business they work in.

Graduates can enjoy a range of career opportunities, including starting their own businesses, managing creative projects and design-driven organizations, incubating and developing new products, services and business strategies, and becoming innovative leaders in the emerging creative economy. Recent figures show that 35% of DBTM graduates are in *the marketing* roles in creative industry while 35% are *entrepreneurs* starting their own businesses and 15% are joining *management trainee* programs.



Academic Partners:

School of Design, the Hong Kong Polytechnic University, Hong Kong



Friends of DBTM:



Learning Modules (From Academic Year 2023)

| Year 1 : Term 1 | Credit | Year 1 : Term 2 | Credit | Summer | Credit | Total |
|---|-----------|--|-----------|--------------------|----------|------------|
| Module: Foundation & Design Basic | | Module: Foundation & Design Basic | | | | |
| TU 107 Digital Skill and Problem Solving | 3 | TU 101 Thailand, ASEAN, and the World | 3 | | | |
| TU 155 Elementary Statistics | 3 | TU 103 Life and Sustainability | 3 | | | |
| AP 163 History of Art and Design | 3 | AP 165 Value Creation Economy | 3 | | | |
| AP 168 Design Entrepreneurship | 3 | DBT 112 Visual Communication Design | 3 | | | |
| DBT 111 Design in Everyday Life | 3 | DBT 121 Accounting and Financial Information for Decision Making | 3 | | | |
| DBT 131 Digital Tools in Design | 3 | DBT 132 Media Technology | 3 | | | |
| Subtotals | 18 | | 18 | | | 36 |
| Year 2 : Term 1 | Credit | Year 2 : Term 2 | Credit | Summer | Credit | Total |
| Module: Managing Design Project | | Module: Managing Design Project | | | | |
| AP 169 Data Analytic in Design and Built Environment | 3 | TU 243 Digital Skills for the Future | 3 | DBT 243 Field Trip | 0 | |
| DBT 213 Psychology and Behavioral Design | 3 | DBT 214 Environmental Design | 3 | | | |
| DBT 222 Design Business and Industry | 3 | DBT 234 Green Technology | 3 | | | |
| DBT 233 Design and Materials | 3 | DBT 237 Design and Production Technology | 3 | | | |
| DBT 241 Inclusive Product Design Innovation | 6 | DBT 242 Environmental and Eco-design Innovation | 6 | | | |
| Subtotals | 18 | Subtotals | 18 | | 0 | 36 |
| Year 3 : Term 1 | Credit | Year 3 : Term 2 | Credit | Summer | Credit | Total |
| Module: Managing Design Organization | | Module: Managing Design Organization | | | | |
| TU 300 Multidisciplinary Service Learning Project | 3 | DBT 345 Innovative Design Project | 3 | | | |
| DBT 315 Platform Design | 3 | DBT 346 Practical Internship | 9 | | | |
| DBT 323 Marketing Research | 3 | | | | | |
| DBT 335 Digital and Information Technology | 3 | | | | | |
| DBT 344 Service Design Innovation | 6 | | | | | |
| Subtotals | 18 | Subtotals | 12 | | | 30 |
| Year 4 : Term 1 | Credit | Year 4 : Term 2 (Master) | Credit | Summer | Credit | Total |
| Module: Managing Design Strategy | | Module: Managing Design Strategy | | | | |
| DBT 416 Organizational Design | 3 | DBT 611 Design Strategy | 3 | DBT 615 Field Trip | 0 | |
| DBT 424 Social Innovation and Social Entrepreneurship | 6 | DBT 612 Transformational and Scenario Planning | 3 | | | |
| DBT 425 Business Laws and Taxation | 3 | DBT 621 Advanced Innovative Project 1 | 3 | | | |
| Free Elective 1 | 3 | DBT 622 Seminar in Design, Business, and Technology Management | 3 | | | |
| Free Elective 2 | 3 | | | | | |
| Subtotals | 18 | Subtotals | 12 | | 0 | 30 |
| Year 5 : Term 1 (Master) | Credit | Year 5 : Term 2 (Master) | Credit | Summer | Credit | Total |
| Module: Individual Development | | Module: Individual Development | | | | |
| DBT 713 Research Ethics and Skills | 3 | Plan A | | | | |
| DBT 714 Global Issues and Trends | 3 | DBT 800 Thesis | 12 | | | |
| DBT 721 Advanced Innovative Project 2 | 6 | Plan B | | | | |
| | | DBT 700 Individual Study | 6 | | | |
| | | Elective 1 | 3 | | | |
| | | Elective 2 | 3 | | | |
| Totals | 12 | Subtotals | 12 | | | 24 |
| Program Total | | | | | | 156 |

3.5-Year Bachelor of Science (BSc) in Design, Business and Technology Management (International Program)

Structure and Components

| | |
|--|---------------------------|
| 1. General Basic Courses | 30 Credits |
| 1.1 World and Society | 6 Credits |
| 1.2 Aesthetics and Communication Skills | 3 Credits |
| 1.3 Mathematics, Science, and Technology | 12 Credits |
| 1.4 Wellbeing and Future Skills | 6 Credits |
| 1.5 Social Service | 3 Credits |
| 2. Core Courses | 84 Credits |
| 2.1 <u>Compulsory Courses</u> | <u>75 Credits</u> |
| 2.1.1 Design Courses | 15 Credits |
| 2.1.2 Business Courses | 15 Credits |
| 2.1.3 Technology Courses | 15 Credits |
| 2.1.4 Skill and Practice | 30 Credits |
| 2.2 <u>Elective Courses</u> | <u>9 Credits</u> |
| 2.2.1 Design Courses | 3 Credits |
| 2.2.2 Business Courses | 3 Credits |
| 2.2.3 Technology Courses | 3 Credits |
| 3. Free Elective Courses | 6 Credits |
| Total | <u>120 Credits</u> |

Detail of the Curriculum

1. General Basic Courses (30 Credits)

1.1 World and Society

TU 101 Thailand, ASEAN, and the World

(3 Credits)

Study of significant phenomena around the world, in the ASEAN region and in Thailand in terms of their political, economic and sociocultural dimensions. This is done through approaches, theories and principles of social science research via discussion and raising examples of situations or people of interest. The purpose of this is to create a perspective of diversity, to understand the complexity of global interrelationships, to build a global mindset and to be able to challenge old paradigms and open up a new, broader worldview.

AP 165 Value Creation Economy

(3 Credits)

This course covers fundamental concepts of micro- and macro-economics and their applications to design, business, and technology management. The theories of value creation economy are also highlighted in class. Students will learn how to apply economic concepts and theories to real world problems and develop their analytical problem-solving skills through case studies and discussions.

1.2 Aesthetics and Communication Skills

AP 163 History of Art and Design

(3 Credits)

Evolution of art and design in both western and eastern world is emphasized in the prominent periods when significant changes of style and characteristics of art occurred. Cultural, social and economic factors underlying the style of contemporary art of Europe and various Asian regions will also be explored.

1.3 Mathematics, Science and Technology

TU 103 Life and Sustainability

(3 Credits)

This course provides an introduction to the importance of life-cycle systems perspectives in understanding major challenges and solutions to achieving more sustainable societies in this changing world. Students will learn about the relationship between mankind and the environment in the context of energy and resource use, consumption and development and environmental on strains. Furthermore, an examination of social conflict and change from the life-cycle perspective will be used to develop an understanding of potential solution pathways for sustainable lifestyle modifications.

TU 107 Digital Skill and Problem Solving

(3 Credits)

Basic computational thinking skill for solving problems and developing new social and economic opportunities. Efficient access and search for information. Information reliability evaluation. Filtering and managing information systematically. Ethical digital usage and professional online communication.

TU 155 Elementary Statistics

(3 Credits)

The nature of statistical problems, review of descriptive statistics, probability, random variables and some probability distributions (binomial, poisson and normal), elementary sampling and sampling distributions, estimation and hypotheses testing for one and two populations, one-way analysis of variance, simple linear regression and correlation, chi-square test.

AP 169 Data Analytic in Design and Built Environment

(3 Credits)

Fundamental concepts of data analysis and management to contribute to the decision-making process in the design and built environment. This course builds up the students' understanding on knowledge of data management and recognition of the importance of data quality characteristics and information, data sources, data analytics and interpretation. With case-based learning that lead toward an understanding of knowledge and application skills demonstrating the ability to analyze and assess data, interpretation of data, data visualization techniques, and draw conclusions. All such data analytics can enhance decision-making capabilities in the design and built environment.

1.4 Wellbeing and Future Skills

TU 243 Digital Skills for the Future

(3 Credits)

Learn Digital Technology Skills, Media Literacy, Skills in using Technology for Communication for Collaboration (Communications and collaboration), Digital Skills to Support their Career (Career and Identity Management), Digital Literacy, Understand Basic Digital Technology, able to use Digital Devices, Digital Skills for Academic and Information Literacy.

AP 168 Design Entrepreneurship

(3 Credits)

Design entrepreneurship provides overview of design entrepreneurship, entrepreneurial motivation and characteristics, human centric design adaptation in business, contexts of entrepreneurial activities, opportunity recognition and evaluation. Various case studies of business model offer insight points of entrepreneurial growth, strategies and acquiring resources. Design entrepreneur identities and leadership lead to the next step of future sustainable entrepreneurship.

1.5 Social Service

TU 300 Multidisciplinary Service Learning Project (3 Credits)

Prerequisite: None (For the third year students and above to enroll)

Service Learning through the implement of knowledge and professional skills of students from different faculties or majors; Learning the integration of knowledge in different disciplines to solve problems for the people.

2. Core Courses (84 Credits)

2.1 Compulsory Courses (75 Credits)

2.1.1 Design Courses (15 Credits)

DBT 111 Design in Everyday Life (3 Credits)

An insight into basis of human behavior and an understanding of proper design appropriate in everyday human usage and meets value of design.

DBT 112 Visual Communication Design (3 Credits)

Basic understanding of arts and world of perception, observation, interpretation and presentation of human experience and the development of verbal and visual communication skills, in lights of meaning, experience, judgment, and interpretation of proper relationship between aesthetic and art, and aesthetic and form.

DBT 213 Psychology and Behavioral Design (3 Credits)

Design with fundamentals and development of modern psychology that lead to the understanding of the interrelationship between the environment and human behavior. Contents cover basic theories, such as perception and cognition to the more specific ones regarding spatial behavior, such as individual territoriality, personal space, and the need of privacy.

DBT 214 Environmental Design (3 Credits)

Basic principles of environment contributed to design that are compatible with global contexts and challenges such as global warming, energy crisis, and sustainable development, etc. Emphasize on the environmental development to create solutions that correspond to nature.

DBT 315 Platform Design (3 Credits)

Basic platform design to create interactions among people in local and regional settings affected by global development trends in order to create the best collaboration among business and organization.

2.1.2 Business Courses (15 Credits)

DBT 121 Accounting and Financial Information for Decision Making (3 Credits)

Understanding of theory and application for accounting and finance in innovative business and industry to achieve appropriate decision making that meets physical, economic, cultural, sociological conditions.

DBT 222 Design Business and Industry (3 Credits)

The fundamental concepts of business operation and the key knowledge required for operation of innovative business and industry. The contents concern finance, accounting, marketing, and management, business strategies and technical knowledge that leads to design innovation.

DBT 323 Marketing Research (3 Credits)

Fundamental theories in marketing and marketing research including the role and importance of marketing research in innovative business and industry selection of appropriate research that is beneficial to business development; statistic tools for marketing research.

DBT 424 Social Innovation and Social Entrepreneurship (6 Credits)
Project-based course and case studies on perspectives and endeavors of thought leaders and entrepreneurs who address social needs in Thailand and internationally as a means of social innovation. The course covers vision setting and integrated skill in project development; mission; goal, business plan, operation plan, financial management and alternative plan.

2.1.3 Technology Courses (15 Credits)

DBT 131 Digital Tools in Design (3 Credits)
Introduction to basic digital tools regarding their backgrounds, and their application in design. This includes innovations and applications of emerging technology.

DBT 132 Media Technology (3 Credits)
Introduction to basic media technology regarding their backgrounds, and their application in design and communication. This includes innovations and new business of technology in digital era.

DBT 233 Design and Materials (3 Credits)
Introduction to basic materials sciences regarding their backgrounds, physical characteristics and inherit natures. This includes invention and proper application process of various basic materials.

DBT 234 Green Technology (3 Credits)
Basic principles of green technology contributed to design of innovation. This includes case studies that focus on emerging environmental-friendly technology and human-centered design.

DBT 335 Digital and Information Technology (3 Credits)
An importance of digital technology, information technology, information and information management; structure of data, design and development of information system management; innovative technology in information management.

2.1.4 Skill and Practice (30 Credits)

DBT 241 Inclusive Product Design Innovation (6 Credits)
Explore design process that brings about creative product. Project-based learning emphasizing the understanding of user diversity. The diversity ranges from capabilities, needs, and aspirations. Emphasize on interacting with real users.

DBT 242 Environmental and Eco-design Innovation (6 Credits)
Environmental design innovation project concerning concepts of economic and environmental-friendly methods; life cycle assessment; eco-product innovation and management; marketing for innovative environment and sustainable innovative strategy for businesses, communities, and environment.

DBT 243 Field Trip (0 Credits)
Field trip in conducting an analysis study of design concepts and their impacts to quality of life. Some preliminary reading prior to the field trip will be included.
Assessment criteria: S (Satisfactory) or U (Unsatisfactory)

DBT 344 Service Design Innovation (6 Credits)
Design innovation project concerning new services to address the real-world needs. The design solution in this class can be varied; new protocols, policies, communication strategies, hardware products/ software programs.

DBT 345 Innovative Design Project (3 Credit)

Applying creative thinking to develop a new design solution which creates added-value that meets the requirements to cope with change in term of product or process that aims to increase competitiveness and productivity for innovative business and industry.

DBT 346 Practical Internship (9 Credits)

Practical internship in certified organization for at least 16 weeks in related field under supervision of co-operative education committee and representation of organization.

2.2 Elective Courses (9 Credits)

2.2.1 Design Courses

DBT 416 Organizational Design (3 Credits)

Fundamentals of design for organizational structure in various innovative business and industry leading to efficient management of human resource, materials, financial sources and information to cope with volatile of business condition.

DBT 417 Special Topic in Design (3 Credits)

The examination of current and influential issues that are related to the development of concept and practice in design and the consequences on the development of technology and management.

2.2.2 Business Courses

DBT 425 Business Laws and Taxation (3 Credits)

Important philosophies and concepts of the business laws and taxation; legal processes and problems affecting design business and industry.

DBT 426 Special Topic in Business (3 Credits)

The examination of current and influential issues that are related to the development of concept and practice in business approaches and the consequences on the development of design and technology.

2.2.3 Technology Courses

DBT 237 Design and Production Technology (3 Credits)

Understanding in design and production process under technological and managerial conditions using case studies that show the obvious impact to social value and environmental sustainability.

DBT 238 Special Topic in Technology (3 Credits)

The examination of current and influential issues that are related to the development of concept and practice in technology and the consequences on the development of design and management.

3. Free Elective Courses (6 Credits)

Students can choose the electives courses from Faculty of Architecture and Planning or another faculties of Thammasat University at least 6 credits. These below subjects cannot be counted into elective courses.

- 1) Every Basic Science and Mathematics courses (including subjects which are not specify in General Basic Courses Part 2)
- 2) Every subjects in General Basic Courses in Part 1 and Part 2 which use the title starting with "TU"

1.5-Year Master of Science (MSc) in Design, Business and Technology Management (International Program)

Structure and Components

Plan A

| | |
|--------------------------------|--------------------------|
| 1. Compulsory Courses | 12 Credits |
| 2. Compulsory Elective Courses | 12 Credits |
| 3. Thesis | 12 Credits |
| Total | <u>36 Credits</u> |

Plan B

| | |
|--------------------------------|--------------------------|
| 1. Compulsory Courses | 12 Credits |
| 2. Compulsory Elective Courses | 12 Credits |
| 3. Independent Study | 6 Credits |
| 4. Elective Courses | 6 Credits |
| Total | <u>36 Credits</u> |

Detail of the Curriculum

1. Compulsory Course (12 Credits)

DBT 611 Design Strategy (3 Credits)

A study of design strategy, planning and decision-making process for effective management in innovative business and industry using case studies of both successful and failed business ventures.

DBT 612 Transformational and Scenario Planning (3 Credits)

A study of various transformational trends of world changing includes concept and theory of possible scenario plans. Case studies of problem-solving methods and plans are introduced for suitable changing situations.

DBT 713 Research Ethics and Skills (3 Credits)

A study of research methodology in design, business and technology management. A series of frameworks of qualitative research is introduced based on research ethics. Students will be able to learn to achieve flexible, design-centered research planning and synthesize data based on intensive reading, exercise and small research projects.

DBT 714 Global Issues and Trends (3 Credits)

Special topics in theory and concept related to global issues and trends based on the interests of students which lead to specific research topic development.

DBT 615 Field Trip (0 Credit)

International field work in conducting an analysis study of design concepts and their impacts to quality of life. Some preliminary reading and short workshop prior to the field trip will be included.

Assessment criteria: S (Satisfactory) or U (Unsatisfactory)

2. Compulsory Elective Courses (12 Credits)

DBT 621 Advanced Innovative Project 1 (3 Credits)

Advanced Innovative Project 1 introduces integrated applications from theory of design, technology and management to real small business or business unit. Integrative project contributes value creation to both undergraduate skills and business beneficial outcomes.

DBT 622 Seminar in Design, Business and Technology Management (3 Credits)

Special topics in theory and concept related to design, business and technology management based on the interests of students which lead to specific research topic development.

DBT 721 Advanced Innovative Project 2 (6 Credits)

Advanced Innovative Project 2 introduces integrated applications from theory of design, technology and management to real medium to large scales of business corporation. Integrative project contributes value creation to both undergraduate skills and business beneficial outcomes.

3. Elective Courses (6 Credits)

Students in Plan B can choose the following courses or the electives courses from Faculty of Architecture and Planning or another faculties of Thammasat University at least 6 credits.

DBT 731 Knowledge Management for Sustainability (3 Credits)

Knowledge management process from knowledge audit, classification, accessibility, and knowledge creation to achieve sustainable management.

DBT 732 Communication and Negotiation in Design Business (3 Credits)

Principles and practices in communication and negotiation in team and public context focus on the development of personal characteristics.

DBT 733 Project and Organization Management (3 Credits)

A study of fundamentals of project and organization management in various innovative business and industry leading to efficient management of human resource, materials, financial sources and information to cope with volatile of business condition.

DBT 734 Project Sustainability (3 Credits)

Fundamental principles of sustainability including ecological, economic and social imperatives. The role and importance of integrated and sustainable project management based of case studies.

DBT 735 Project Risk Management (3 Credits)

Study of decision-making principles and the management of project risks using analytical hierarchy process and other decision-making techniques to achieve the development objectives.

DBT 736 Business Ethic and Moral (3 Credits)

Roles and responsibilities of business organization on the well-being of society and environment as one of the transparent social and community components.

DBT 737 Leadership in Design Management (3 Credits)

Leadership development for design business and organizational management to increase competitiveness based on specialization of team members.

DBT 738 Urban Future (3 Credits)

Understanding of urbanization process and its dynamics. Topics include identification of future risks and the coping capacities of urban community. This is to characterize vulnerabilities of the city, vulnerability and risk assessment, and to visualize adaptive capacity strategies that lead to sustainability and resilience of cities.

For Students in Plan A

Thesis (12 Credits)

DBT 800 Thesis

(12 Credits)

Conduct independence research in design, business and technology management that leads to new findings. A research paper is expected for publication and presentation. The conduct of the research and its publication/ presentation must be based on morality.

For Students in Plan B

Elective Courses

(6 Credits)

Students in Plan B must study at least 6 credits by choosing courses in Master level which are open in Thammasat University. These courses must be approved by the committee of this program

DBT 700 Independent Study

(6 Credits)

Students conduct independence study which is subject to the approval of the curriculum committee. The process of presenting the research should follow appropriate research protocols dealing with topics relevant to design, business and technology management.