Course Description

816501 Research Methodology in Data Science 3 (3-0-6)

Identifying the problem and the approach to fix the problem in data science by using mathematical or statistical principles in order to conduct research to reach a conclusion that will be used to solve problems for the organization, including types of research, research objectives and research design. The use of data as a tool to drive organizations, especially information about customer opinions on products and services, data collection method, data understanding and preparation, data analysis using data science techniques, generating models and evaluation, deploy model deployment and feedback assessment

816502 Seminar 1 1 (0-3-1)

Studying factors and analyze marketing problems, technology and innovation in different types of businesses, data storage, management and innovation, modern data science techniques, enabling students to apply their knowledge as a guideline in determining the topic of the thesis or independent research that students are interested in

816503 Seminar 2 1 (0-3-1)

Monitoring the progress of a thesis or independent study including special lectures and panel discussions on, a digital business technology platform, Intelligent Marketing, product innovation, and data science for business cases

816511 Intelligent Marketing and Digital Economy 3 (3-0-6)

Overall, of Intelligent Marketing, Digital Economy, Data dimension, a change in Customer behavior, importance of Data Marketing, exploring and collecting data from competitors Stakeholders' needs and other data marketing for analyzing gaps in the market and marketing opportunities. Presenting data report by using Intelligent Marketing tools and techniques. Understanding Digital Marketing Landscape, financial impact and financial technology in order to create a Intelligent Marketing plan

816512 Customer Centric Technology Innovation 3 (3-0-6)

Concepts of customer-centric innovation, learning the method to reach the need, the desire for customer insight, the voice of the customer, synthesizing innovation. The use of data–driven for exploring and analyzing customer experience both online and offline. Decision-making process that can be used to plan Customer Journey. Changing target group to Customer Loyalty, Technology for using in learning customer such as Social Listening Tools

816513 Project Feasibility Study and Evaluation 3 (2-2-5)

The basic concepts of project analysis, and project planning—using technology to assist innovation development. Financial analysis, searching for technological value, including designing business operations plan to use as a criterion to make investment decisions, technology for value-adding, expense and return on the project, product planning strategy in the digital era, and making a project action plan

816514 Virtual Presentation 3 (3-0-6)

Collecting and processing business data in 4 areas; marketing, finance, working system and human resource by using business tools, along with adopting innovation to use for prediction and decision making. Global data communication methods. Creating an attractive presentation that easy to understand in order to build participation in decisions and support from stakeholders both inside and outside of the organization for creating business operation effectiveness

816515 Metaverse Marketing 3 (3-0-6)

Knowledge and characteristics of the metaverse, metaverse elements, metaverse trend, the impact on marketing, the preliminary metaverse technology such as Virtual Reality (VR) and Augmented Reality (AR), Marketing and branding strategy for metaverse, a case study of marketing via virtual

816516 Logistics System and Supply Chain Management 3 (3-0-6)

A foundation of analytical tools, methods and techniques in the design and operation of logistics systems and integrated supply chains. An introduction to logistics activities and characteristics of supply chain management; demand forecasting, planning and management; inventory control and planning; lean logistics and operational transportation issues. A range of technology and related practices within the logistics and supply chain operations. The interaction between the distribution system and the marketing mix as an integral part of the organization's logistics success in both intra and inter-company logistics. Applying supply chain concepts in business situations

816517 Technology and Intellectual Properties Management 3 (2-2-5)

Principles of technology and intellectual properties management, laws and regulations related to intellectual properties, registration of innovation for intellectual property, protection and utilization of intellectual properties, valuation of intellectual properties, business creation from intellectual properties, problems in technology and intellectual property management, technology forecasting and study of commercial growth of intellectual properties

816521 Design Thinking and Business Innovation Development 3 (3-0-6)

Designing innovation through the design thinking process, understanding, defining insight target market (Empathize), Define, Ideate, prototype, and test. A study on concepts and process of creative thinking development, presentation of a framework of understanding involving process and business operation leads to creating new business. Including knowledge management and organizational learning to create innovation and Business model canvas, to create a business growth (S-curve)

816522 Artificial Intelligence and Smart Business 3 (2-2-5)

The integration of artificial intelligence with management science in business strategy and management, applying tools or designing and developing systems that can manage business to maximize value, process and operate business intelligently, business intelligence and supporting decision making systems in organizations, expert systems and artificial intelligence in different research aspects

816523 Advanced Artificial Intelligence for Businesses 3 (3-0-6)

Solving business problems using Artificial intelligence: AI, machine learning in which deploy them to support business, analytics tools for business decisions, using artificial intelligence as a tool to create a strategic advantage for organization and optimizing business processes, using advanced analytics and artificial intelligence in business applications, future trends of artificial intelligence for businesses

816524 FinTech and Blockchain for Business Innovation 3 (3-0-6)

Currency evolution, conducting a new financial business, blockchain and digital currency, cryptocurrency mining and business, technology framework and tokenization process, electronic transactions laws and digital asset, business and financial innovation, blockchain applications, blockchain in finance, metaverse and future financial world

816525 Digital Transformation 3 (3-0-6)

Digital transformation of business model, digital disruption mechanism, disruptive innovation, digital transformation model, types of digital transformation, managing changes for digital transformation, platform business strategy analysis of the case study of digital transformation in businesses, adapting business to leverage digital transformation, measuring success in digital transformation

816531 Data Science and Business Forcast 3 (2-2-5)

Introduction to business data science and decision making, gathering data, exploring data, statistical inference, regression analysis, forecasting and time series, optimization, simulation modeling, advanced data analysis, packaged program for using business prediction

816532 Innovative System Design and Application 3 (2-2-5)

Designing User Experience and User Interface, applying innovation to understand customer journey for developing API and platform. Including techniques for extension of innovation to be used for real or commercial use. Examples of the design, development and application of innovative software systems in various spheres of human activity such as internet of things, artificial intelligence and big data

816533 Technological Innovation 3 (3-0-6)

The changing in social and technological evolution, the process of creating technology, and innovation, including an overview of the difference between innovation and technology. Digital transformation, analyze the relationships and impacts of humans, society, innovation, technology, and the environment. Examples of innovation and contemporary technology. Provide innovative proposals that are in line with the context of Thai society in Asia and internationally, and the basics of using software packages for analysis such as Excel

816534 Data Visualization and Narratives 3 (3-0-6)

Storage and management of information, techniques and tools for visualizing different types of data, evaluating different methods communicating data insights to a range of stakeholders and domain experts in a chosen field, investigating different narrative approaches to 'tell the story', narrative structure, visual narratives, storytelling with data visualization case studies of narrative visualization, intelligent data analysis and visualization

816535 Advanced Data Science for Business 3 (3-0-6)

Data science and business strategy , tools, technologies, and trends in business data science, applying data science and analytic techniques in solving business problems such as to predict engagement and customer life time value; analyzing trends; determining valuable customers, big data science for data manipulation and machine learning, advanced data science models and application such as strategy analytics; forecasting; predictive analytics and modelling of data, game theory for business analytics

816571 Thesis 1, Type A 1 9 credits

Studying the elements of thesis; reviewing literature and related research; and determining thesis title

816572 Thesis 2, Type A 1 9 credits

Developing concept paper and preparing the summary of literature and related synthesis

816573 Thesis 3, Type A 1 9 credits

Developing research instruments and research methodology; and preparing a thesis proposal in order to present it to the committee

816574 Thesis 4, Type A 1 9 credits

Collect data, analyze data, prepare progress report in order to present it to the thesis advisor, and prepare full-text thesis and research ariticle in order to get published according to the graduation criteria

816581 Thesis 1, Type A 2 3 credits

Studying the elements of a thesis or thesis examples in the related field of study; determining the thesis title; developing a concept paper; and preparing the summary of the literature and related research synthesis

816582 Thesis 2, Type A 2 3 credits

Developing research instruments and research methodology; and preparing a thesis proposal in order to present it to the committee

816583 Thesis 3, Type A 2 6 credits

Collecting data; analyzing data; preparing a progress report in order to present it to the thesis advisor; and preparing the full-text thesis and a research article in order to get published according to the graduation criteria

816591 Independent Study 1 3 credits

A study of element of research, explore, review related documents and research, problems and topics of research definatining research progress presentation to research advisor(s)

816592 Independent study 2 3 credits

A Study and analysis of data, progress report presentation to research advisor (s), completing independent research report and article for publication according to graduation requirements

The meaning of course code numbers is as follows:

The course code in the curriculum consists of 6 digits, with the following structure:

1. The first three digits represent the program code.
   816 refers to Program in Innovative Intelligence Marketing and Data Sciences.
2. The last three digits represent the course identifier:
   - 2.1 The hundreds digit indicates the graduate level.
   - 2.2 The tens digit indicates the subject group within the program, as follows:
     - 0 = Non-credit course group
     - 1 = Business and Marketing course group
     - 2 = Innovation and Artificial Intelligence course group
     - 3 = Data Science and Technology course group
     - 7 = Thesis course group (Plan A1)
     - 8 = Thesis course group (Plan A2)
     - 9 = Independent Study course group
   - 2.3 The units digit indicates the sequence of the course within its category.