

Master of Information Technology

Introduction

It is expected that the graduates of Information Technology Study Program have competency as a leader with vision and future insight, able to design and apply information technology that will improve work performance of organization.

It emphasizes on following aspects:

1. Advise
Able to provide an input about products, services, strategy and structure organization, particularly regarding to technical competency of Information and Communication Technology (ICT).
2. Value/Assess
Doing research on products, copy rights, facilities and human resource in context of organization business and the possibility of new potential business.
3. Vision
Building a vision about possible technology and its impact to organization business area, and how to use the benefit with its changes.
4. Communicate
Communicating organization's vision to the staff in supporting the change and increasing organization's profit.
5. Manage
Managing the development and operational of ICT division to support utilization of technology for organization and preparing the expert to new technology.
6. Innovate
Get involved into research and product development directly, especially for creative process and its utility evaluation.

Supplies for the Post-Graduate Study Program consist of two aspects: information technology and business knowledge where it is expected that the graduates will have a commanding view to the process and performance of business corporate. The supply focuses on information technology referring to research, management and latest technology update.

Process management in development of information technology is the core of subject given, including IT Services, IT Strategic Planning, Enterprise architecture, Advanced Software Engineering, and Information Technology Project management. Technical aspect which has become new trend, such as Service Oriented Architecture, Big data analytics, Cloud Computing & Mobile Technology and Computer security turn into varieties in delivering the materials.

Vision

A world class ICT Graduate Program which delivers visionary and innovative leaders in the advancement of ICT knowledge and applications.

Mission

The mission of Master of Information Technology is to contribute to the global community through the provision of world-class education by:

1. Preparing outstanding visionary ICT leaders for industry and government which are capable in facing the challenge of the future in Information Communication Technology.
2. Providing an excellent advanced education/research and professional services in information technology, recognized globally, that attracts and retains a talented and creative student body and faculty.
3. Generating innovative technologies leading to new products and improved business processes, thus enhancing the quality of life.

Program Objective

The objectives of the program are:

1. To provide students with ICT best practices in order to increase their competitive advantage by applying the leading technologies;
2. To provide students with advanced knowledge in innovation, technology, and leadership in order to pursue efficient as well as effective business processes;
3. To provide students with international experience in research and development in order to improve humanity as well as environmental aspects.

Student Outcomes

After completing the study, graduates are:

1. Able to propose solutions to the problems with implementing the Information Technology in a dynamic and complex environment in the form of innovative work tested through the research and development of information technology in accordance the scientific study and professional practice;
2. Able to develop software application to solve the problems that can be solved with Information Technology in the complex and dynamic environment using Scientific research approach;
3. Able to develop methods and Information Technology using inter and multidisciplinary research approaches to produce tested innovative work and commercialized applicative potential in the information technology field;
4. Able to analyze and design the blueprints of Information Technology and effective Information Technology infrastructure management based on a scientific study and professional practice;
5. Able to plan the Information Technology projects using effective knowledge management of information technology project based on the principles of good governance;
6. Able to develop science and Information and Communication Technology using artificial intelligence method to produce innovative products that can be applied in various fields;
7. Able to develop science and Information and Communication Technologies using governance method of the infrastructure network to produce blueprint strategy and Information and Communication Technology in an organization with a service-oriented approach;
8. Able to develop science and Information and Communication Technology using latest data processing and the information methods to produce knowledge that can be used to win the global competition.

Prospective career of the graduates

Master of Information Technology graduates have the opportunity to fill positions at prestigious firms such as IT Leader, IT Innovator, IT Business Creator, IT Consultant, IT Solution and System Integrator, IT Project Manager, IT Lecturer.

Curriculum

To achieve the vision of "world class graduate program", it is necessary to provide subjects with conceptual and fundamental content as well as practical that refers to an International standard curriculum, as well as courses that are filled with Information Technology applications. In addition, the "in continuous pursuit of innovation and enterprise" vision is realized by regularly revising the curriculum used primarily to anticipate the development of the labor market and the rapidly expanding knowledge in information technology. Some references are used in the determination of current technology trends, such as Gartner, Inc. on Top 10 Strategic Technology Trends for 2015 and IEEE-CS Top Technology Trends 2015. The two studies suggest that Cloud Computing, Big Data, Internet of Thing, and Mobile Computing are four technological trends by 2015. Therefore, the MTI Study Program has developed curriculum in order to follow the trend of this technology. In addition to the government regulations that require publication for every graduate of the S2 program, the MTI Study Program has developed a curriculum to ensure that each student can create and have scientific publications before graduating with a research enrichment approach for each course. In addition, based on the results of focus group discussion with students it is found that the potential of new students coming from industry that quite a lot come from various areas spread. They are constrained by time and place because they have to work during college so it is less flexible if they have to come to campus every day. So the MTI Study Program develops a curriculum with a more flexible learning system which does not reduce the quality of learning by using blended learning system.

Course Structure

SEMESTER 1

1st Period

Course	SCU
COMP8029 – IT Security and Risk Management	4
MOBI8002 – Mobile Technology & Cloud Computing	4

2nd Period

Course	SCU
RSCH8079 – IT Research Methodology	4
Streaming : Information Engineering	
COMP8030 – Advanced Database Systems	4
Streaming : IT Strategic and Infrastructure Management	
CPEN8004 – Network Governance	4

SEMESTER 2

1st Period

Course	SCU
COMP8031 – IT Services	4
RSCH8080 – Pre Thesis	1
Streaming : Information Engineering	
COMP8032 – Selected Topics in Information Engineering	4
Streaming : IT Strategic and Infrastructure Management	
COMP8033 – Selected Topics in IT Infrastructure Management	4

2nd Period

Course	SCU
Streaming : Information Engineering	
COMP8034 – Knowledge Data Discovery	4
COMP8035 – Big Data Analytics	4
Streaming : IT Strategic and Infrastructure Management	
COMP8036 – Services Oriented Architecture	4
COMP8037 – IT Strategic Planning & Enterprise Architecture	4

SEMESTER 3

1st Period

Course	SCU
ISYS8032 – IT Project Management	4
RSCH8081 – Writing paper & Colloquium thesis	2

2nd Period

Course	SCU
RSCH8082 – Thesis	3