

Master of Industrial Engineering

Graduate Program in Industrial Engineering

Master of Industrial Engineering are the experts who be able to contribute significantly in bridging organizational goals through optimal operational performance, involving the elements of human, machines, methods, money, materials, information technology and environment. They are expected to be able to bring a constructive breakthroughs and value added to the competitiveness of the organization, through analysis, design, innovation, implementation and continuous improvement of the system and operational of to increase the organization performance. Practitioners in Industrial Engineering are expected to be able to lead and make the logistic and supply chain divisions as one of the major forces that bring the company to be a winner in the world business competition.

As one of the leading IT-based educational institution that has been experienced, Binus University Graduate Program dedicates the graduate education programs in industrial engineering to meet the needs of industry to become the leaders in logistics, supply chain and quality management industries. Binus Graduate Program provides a curriculum that emphasizes the lectures in information technology field to offset the formation of strategic thinking and analytical patterns that equip the students with a range of competencies in industrial engineering and managerial fields to become future leaders.

The graduates of Industrial Engineering Program will have competency as a leader in supply chain engineering and industrial management which able to control the function of man, material, machine, money, method and information technology in order to reach the vision and mission of companies. In addition, he/she able to act as industrial engineering consultant for organization in solving the problems, including evaluation to effectiveness and efficiency of the system in industry.

Vision

The most prestigious and dynamic Industrial Engineering School in Indonesia by producing globally competitive graduates.

Mission

1. To produce the graduates who have comprehensive knowledge as global leader in industrial engineering field and capable to apply the principles of science engineering, information and communication technology (ICT) to understand, communicate, and synergize the team work in solving the industrial within their profession based on national and international curriculum standard.
2. To produce the graduates who involved in research, communication, leadership and sustainability with multidiscipline approach with the highest standard of profession and ethical practice in the area of industrial engineering to increase the quality life of society in national and international.
3. To produces the graduates who have advanced industrial engineering skills, information communication and technology, and entrepreneurship to contribute to the field of engineering, economy, and environment globally.

Program Objective

1. To provide students with industrial engineering best practices in order to attain the global competitiveness as Supply Chain and Industrial Management Leaders.
2. To provide students with advanced knowledge in Industrial Engineering for strategic advantage.
3. To provide students with information technology skills in industrial engineering to leverage the knowledge and technology.

Graduate Competency

1. An ability to apply mathematics, science, and engineering to the Industrial Engineering domain.
2. An ability to collect, analyze, and interpret the data used in designing and conducting experiments.
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4. An ability to identify, formulate, and solve problems through Industrial Engineering approaches
5. An ability to function in multi-disciplinary teams.
6. An understanding of professional and ethical responsibilities.
7. An ability to communicate effectively.
8. To determine impact of Industrial Engineering in a global, economic, environmental, and societal context.
9. A recognition of the need to engage in life-long learning.
10. An updated knowledge of contemporary Industrial Engineering related issues.
11. An ability to use the techniques, skills, and modern engineering tools necessary for industrial engineering practice

Prospective Career of the graduates

Master of Industrial Engineering graduates have the opportunity to fill the positions at prestigious firms such as the Industrial Engineering Function Division Top Management, Supply Chain Engineer, Engineering Consultant, Project Manager, Quality Engineer, Manufacturing Engineer, Production Engineer, Human Resources Management, Lecturer, and Researcher.

Course Structure

Semester 1

Course Name	SKS
STAT8001 – Statistical Analysis & Research Methodology	3
ISYE8001 – Engineering Optimization	3
ISYE8002 – Quality Assurance & TQM	3
Stream: Industrial Management	
ISYE8003 – Risk and Industrial Management	3
Stream: Supply Chain Engineering	
ISYE8004 – Global Supply Chain	3

Semester 2

Course Name	SKS
MGMT8005 – Operation Management	3
ISYE8006 – Human-Integrated System	3
ISYE8007 – Human Performance Technology	3
RSCH8010 – Thesis Proposal	0
Stream: Industrial Management	
ISYE8008 – Service Engineering	3
ISYE8009 – Industrial System Design	3
Stream: Supply Chain Engineering	
ISYE8010 – Logistics	3
ISYE8011 – Supply Chain Modelling	3

Semester 3

Course Name	SKS
ISYE8012 – System Simulation And Modeling	3
ISYE8013 – Occupational Safety & Health Management	3
MGMT8006 – Human Capital Management	3
RSCH8011 – Thesis	6