

# CURRICULUM

## 1<sup>ST</sup> YEAR

Mathematics IA  
Elementary Physics IA  
Basic Chemistry IA  
Introduction to Engineering and Design I  
Scientific Writing in Bahasa Indonesia  
Sports  
Mathematics IIA  
Elementary Physics IIA  
Basic Chemistry IIA  
Introduction to Engineering and Design II  
Academic English: Reading, Speaking, & Writing  
Engineering Drawing  
Introduction to Information Technology B

## 2<sup>ND</sup> YEAR

Introduction to Engineering Management  
Statistics I  
Industrial Electronics  
Cost Estimation  
Engineering Economics  
Elementary Thermodynamics B  
Engineering Mechanics  
Matrices and Vector Spaces  
Statistics II  
Quantitative Method I  
Manufacturing Process  
Planning Theory and Methodology  
Innovation System and Entrepreneurship  
Managerial Economics  
Engineering Management Practice 1  
Calculus III

## 4<sup>TH</sup> YEAR

Interdisciplinary Engineering Project  
Engineering Management Internship  
Occupational Health, Safety and Environment  
Risk Analysis and Feasibility  
Project Financing  
Final Project I  
Engineering Management Practice 4  
Final Project II  
Religion and Ethics  
Pancasila and Civic Education

## 3<sup>RD</sup> YEAR

Quantitative Method II  
Introduction to Human Factors Engineering  
Marketing Research  
Management Technology  
Planning and Product Development  
System Supply Chain  
Engineering Management Practice 2  
Business Process and Organization Design  
Quality Engineering  
Information Systems Planning  
Project Management  
Engineering Management Practice 3



**TECHNICAL  
CONCENTRATION**



**MANUFACTURE**

**CHEMICAL PROCESS**

# CAREER OPPORTUNITIES

Graduates of Engineering Management will be prepared for a broad range of positions and careers in Technical & Management positions in all industry sectors, which includes jobs in:

- CXO (Chief Executive Officer, Chief Operating Officer, Chief Technology Officer, Chief Marketing Officer)
- Entrepreneur/Founder
- Business/Financial/Data Analyst
- Project/Program Manager
- Product Manager
- Cost Systems Analyst
- Systems Engineer/Architect
- Consultant (general, technical)
- Applications/Sales Engineer
- Design Engineer



## Contact us:

Engineering Management  
Undergraduate Program

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# ENGINEERING MANAGEMENT

INNOVATION DISTINGUISHES BETWEEN LEADER  
AND FOLLOWERS



# ENGINEERING MANAGEMENT

## JUMP START YOUR CAREER!

Our world has changed significantly in the last decade and it will certainly change even more in the next decade. Technology now touches our lives almost every moment of every day. From the moment we wake up, to the moment we settle down to sleep—and almost every hour in between—technology is a part of almost every moment of our lives. That’s why the Bachelor of Engineering Management is so important

*Are you prepared to be the tech savvy leader that boardrooms across the world are looking for?*

### QUICKFACTS

**2010**

Year of EM program establishment in ITB

**1<sup>ST</sup>**

Engineering Management major in Indonesia

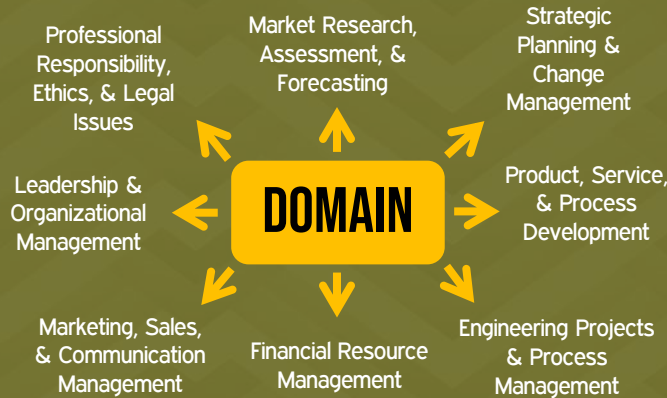
**200+**

EM program graduates who work in different industrial sectors by Oct .2018

**79%**

Alumni who acknowledge that EM program is relevant with their work and industry sector

## ENGINEERING MANAGEMENT DOMAIN



An Engineering Managers can act as a project manager, technical sales people & lead system engineers that involves the process of defining, designing, integrating, marketing, and testing complex systems that are loaded with technology and information

## EM DIFFERENCES WITH IE

	INDUSTRIAL ENGINEERING (IE)	VS	ENGINEERING MANAGEMENT (EM)
CORE COMPETENCE	Design, Improve, Install of Production System		Design, Improve, Install of Engineering Projects
KEY CONTRIBUTION	Efficiency, Productivity, Quality		Competitiveness, Value Added
APPROACH	System Approach, Engineering Method		

EM Program was established to answer the need for strengthening Indonesian industries through excellence in management of engineering activities, in particular the upper-stream engineering activities which are critical to agility of the industries in adapting to the dynamic changes. The EM and IE Program both are complementary to each other in accomplishing an end-to-end technology life cycle. The difference is EM Program focuses more on the engineering stages of innovation, while IE Program concentrates more on the stages of production or operation.

**AN ENGINEERING MANAGER MAKES AN “INVENTION” BECOMES AN “INNOVATION”**

