

# engineering



University of  
Reading

**SPU**  
SRIPATUM  
UNIVERSITY

## B.Eng. in Industrial and Digital Management Systems Engineering

**IEDMS** covers all essential materials in industrial engineering methods and tools, a fundamental of mathematical, physical, engineering and management sciences. Trained through hands-on experiences and project-based settings, our students are expected to develop a system-oriented, critical and analytical thinking skill.

### program structure

The first two years of the program cover fundamentals in science and mathematics, engineering, Engineering, as well as language and communication skills.

In Years 3 and 4, each student will study the core courses of IEDMS

covering the fundamental and the state-of-art knowledge in industrial engineering, system thinking, and management sciences. Sample courses include: System Dynamics Modelling, Data Sciences and Data Analytics, Operations Research and Simulation, Process Analysis, Supply Chain Economics & Logistics Management, Human Interaction & Services Integrated Management Systems for sustainability, Information and Database Technology

Training in the industry is required, either in the summer of Year 3 or in Semester 2 of Year 4

### tuition fee

2,750 USD/semester

(21,820 USD for the entire program)

\*\* 90,000 baht/semester (720,000 baht for the entire program)

## 3 TRACKS

**Track 1** Solely run  
by Faculty of  
Engineering KMITL

**Track 2 Dual degree -**  
Cooperation between Faculty  
of Engineering, KMITL, and  
School of Computer Science,  
**University of Reading (UK)**

**Track 3 Dual degree -**  
Cooperation between Faculty  
of Engineering, KMITL, and  
Faculty of Business Science,  
**Sripatum University**

### Total 139 credits

General Education 30 credits

Major courses 103 credits

Free electives 6 credits

# engineering

Industrial and Digital Management Systems



## study plan

Semester 1

Semester 2

### TRACK 1 COURSES HELD AT KMITL

Year 1

Introduction to Calculus  
Physics 1  
Chemistry  
Introduction to Engineering Programming  
Engineering Materials  
(ESL) Academic Listening and Speaking (Audit)  
GEN-ED Electives (Humanities 1)

Advanced Calculus  
Physics 2  
Engineering Drawing  
Engineering Mechanics  
(ESL) Academic Reading and Writing (Audit)  
GEN-ED Electives (Social sciences 1)  
GEN-ED Electives (Humanities 2)

Year 2

Fundamental of Electrical Engineering  
Manufacturing Processes  
Engineering Statistics  
Differential Equations and Linear Algebra  
  
Computer and Information Technology for Industrial Engineering  
Industrial Engineering Laboratory  
GEN-ED Electives (Humanities 3)

Discrete Event Simulation  
Industrial Work Study  
Thermodynamics  
Industrial Engineering Practice  
Mechanical Engineering Laboratory  
Industrial Safety Engineering  
Data Science and Data Analytics

Year 3

Operations Research  
Engineering Economy  
Quality Engineering  
(Gened Elective)  
Automation Systems  
GEN-ED Electives (Social sciences 2)  
GEN-ED Electives (Humanities 4)

Industrial Plant Design  
Maintenance Engineering  
Production Planning And Control  
Supply Chain And Logistics Management  
GEN-ED Electives (Science 1)  
(Free Elective)

Year 3

Summer - Industrial Training

Year 4  
**Regular**

IE&DMS Elective  
IE&DMS Project Preparation  
Project Management  
GEN-ED Electives (Social sciences 3)

IE&DMS Elective  
IE&DMS Project  
GEN-ED Electives (Social sciences 2)  
(Free Elective)

Year 4  
**Study-Abroad  
or Cooperative  
Education**

Study-Abroad  
or Cooperative Education

IE&DMS Elective  
IE&DMS Elective  
Project Management  
GEN-ED Electives (Social sciences 3)  
GEN-ED Electives (Social sciences 4)  
(Free Elective)



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Industrial and Digital Management Systems

study plan



University of  
Reading

## TRACK 2 COURSES HELD AT KMITL - UNIVERSITY OF READING

### Semester 1

### Semester 2

### Semester 3

#### Year 1

Introduction to Calculus  
Physics 1  
Chemistry  
Introduction to Engineering  
Programming  
  
Engineering Materials  
(ESL) Academic Listening and Speaking (Audit)  
GEN-ED Electives (Humanities 1)

Advanced Calculus  
Physics 2  
Engineering Drawing  
Engineering Mechanics  
(ESL) Academic Reading and Writing (Audit)  
GEN-ED Electives (Social sciences 1)  
GEN-ED Electives (Humanities 2)

GEN-ED Electives (Humanities 2)  
Operations Research  
Industrial Safety Engineering

#### Year 2

Fundamental of Electrical Engineering  
Manufacturing Processes  
Engineering Statistics  
Differential Equations and Linear Algebra  
  
Computer and Information Technology  
for Industrial Engineering  
  
Industrial Engineering Laboratory  
GEN-ED Electives (Humanities 3)

Discrete Event Simulation  
Industrial Work Study  
Thermodynamics  
Industrial Engineering Practice  
Mechanical Engineering Laboratory  
Industrial Safety Engineering  
Data Science and Data Analytics

Engineering Economy  
Industrial Plant Design  
Production Planning And Control

