

Engineering Management and Entrepreneurship

Think Connections with Modules

MODULES

Engineering Entrepreneurship
Construction Engineering and Management
System Engineering
Smart Cities and Urban Infrastructure
Logistics and Supply Chain Management



EIE

CIVIL
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FACULTY OF
ENGINEERING

<http://ieng.kmitl.ac.th>



Engineering Management and Entrepreneurship

More than two-thirds of all engineering professionals invest a significant portion of their career in managing and administering a wide range of technical engineering and research projects and budgets. As the engineering profession evolves, an increasing need has emerged for entry-level engineering professionals who have both a broad engineering background and the knowledge and ability to interface between the business and technical functions of organizations.

Engineering Entrepreneurship Module refers to the concept of developing and managing a business venture in order to gain profit by taking several risks in the corporate world. Simply put, entrepreneurship is the willingness to start a new business. Entrepreneurship has played a vital role in the economic development of the expanding global marketplace.

System Engineering Module is a contemporary interdisciplinary field in which students learn fundamental tools to design and manage large-scale complex systems over their lifecycles. Follow the Systems Engineering module, within our EME degree program, to apply rigorous modeling and decision-making principles to emerging societal - scale systems.

Modules in: Smart Cities and Urban Infrastructure Logistics and Supply Chain Management

With a career focus on Sustainable Buildings, Cities, Urban, Communities and Logistics

Construction Engineering and Management

3D modeling, planning and control, estimating and cost analysis, energy, facility management with BIM in project management

EME Subject Roadmap:

| Year 1 Semester 1 | | | ✓ | Units |
|------------------------|--|-------|------|-------|
| 01006801 | INTRODUCTION TO ENGINEERING PROGRAMMING | IT | | 3 |
| 01006710 | INTRODUCTION TO CALCULUS | MATH | | 3 |
| 01006723 | GENERAL PHYSICS I | SCI | | 3 |
| 01006724 | GENERAL PHYSICS LABORATORY 1 | SCI | | 1 |
| 01006804 | ENGINEERING MATERIALS | ENG | | 3 |
| 0153610x | Fundamental Engineering and Technology Elective Course | ENG | | 3 |
| 01536301 | PRINCIPLES OF ACCOUNTING | MNG | | 3 |
| xxxxxxx | Gen-Ed Elective 1 | GED | | 3 |
| 01006500 | (ESL) ACADEMIC LISTENING AND SPEAKING | ELS | | 0 |
| Year 1 Semester 2 | | | ✓ | |
| 01006711 | ADVANCED CALCULUS | MATH | | 3 |
| 01006725 | GENERAL PHYSICS 2 | SCI | | 3 |
| 01006726 | GENERAL PHYSICS LABORATORY 2 | SCI | | 1 |
| 01006727 | GENERAL CHEMISTRY | SCI | | 3 |
| 01006728 | GENERAL CHEMISTRY LABORATORY | SCI | | 1 |
| 01006803 | ENGINEERING MECHANICS | ENG | | 3 |
| 01536302 | FINANCIAL MANAGEMENT | MNG | | 3 |
| 01006516 | INNOVATION MANAGEMENT | GED | | 4 |
| 01006813 | (ESL) ACADEMIC READING AND WRITING | ELS | | 0 |
| Year 2 Semester 1 | | | ✓ | |
| 01536101 | CONSTRUCTION TECHNOLOGY | ENG | | 3 |
| 01006717 | DIFFERENTIAL EQUATIONS | MATH | | 3 |
| 01006719 / | PROBABILITY AND STATISTICS 1 | STAT | / Or | 3 |
| 01536001 | PROBABILITY AND RELIABILITY | STAT | | |
| 01536303 | MARKETING MANAGEMENT | MNG | | 3 |
| 0153620x | Information Technology Course | IT | | 3 |
| 0153640x | Entrepreneurship Course | ENT | | 3 |
| xxxxxxx | Gen-Ed Elective 2 | GED | | 3 |
| Year 2 Semester 2 | | | ✓ | |
| 01536102 | STRUCTURAL MECHANICS AND DESIGN | ENG | | 3 |
| 01006720 / | PROBABILITY AND STATISTICS 2 | STAT | / Or | 3 |
| 01536002 / | ENGINEERING STATISTICS | STAT | / Or | |
| 01536003 | BUSINESS STATISTICS | STAT | | |
| 01006729 / | INTRODUCTION TO OPERATIONS RESEARCH | OR | / Or | 3 |
| 01536004 | OPERATIONS RESEARCH | OR | | |
| xxxxxxx | Free Elective 1 | ELE | | 3 |
| 0153640x | Entrepreneurship Course | ENT | | 3 |
| 01006510 | INTRODUCTION TO ECONOMICS | ECON | | 3 |
| 01006505 | CREATIVE THINKING | GED | | 3 |
| Year 3 Semester 1 | | | ✓ | |
| 01536103 | ENGINEERING CAD, GRAPHICS AND LABORATORY | ENG | | 3 |
| 01536304 | ENGINEERING ECONOMICS | ECON | | 3 |
| 01536501 | DECISION AND MULTI-CRITERIA ANALYSIS | CORE | | 3 |
| 01536502 | PRODUCTION AND OPERATIONS MANAGEMENT | CORE | | 3 |
| xxxxxxx | Minor Module Elective 1 | MINOR | | 3 |
| xxxxxxx | Free Elective 2 | ELE | | 3 |
| 01006517 | LEAN STARTUP AND AGILE BUSINESS | GED | | 4 |
| Year 3 Semester 2 | | | | |
| 01536503 | STRATEGIC MANAGEMENT | CORE | | 3 |
| 01536504 | QUALITY CONTROL AND MANAGEMENT | CORE | | 3 |
| 01536505 | PROJECT MANAGEMENT | CORE | | 3 |
| xxxxxxx | Minor Module Elective 2 | MINOR | | 3 |
| xxxxxxx | Minor Module Elective 3 | MINOR | | 3 |
| 01006515 | DESIGN METHODS FOR INNOVATIONS | GED | | 4 |
| 01006519 | INTRODUCTION TO ENVIRONMENTAL PRINCIPLES | GED | | 3 |
| Year 3 Summer Semester | | | | |
| 01006805 | INDUSTRIAL INTERNSHIP | INT | | 0 |
| Year 4 Semester 1 | | | | |
| 01536701 | PROJECT 1 | PROJ | | 3 |
| xxxxxxx | Minor Module Elective 4 | MINOR | | 3 |
| Year 4 Semester 2 | | | | |
| xxxxxxx | Minor Module Elective 5 | MINOR | | 3 |
| 01536702 | PROJECT 2 | PROJ | | 3 |
| 01536801 | BUSINESS AND ENTREPRENEURSHIP ENGINEERING DESIGN AND INTEGRATION | CAPS | | 3 |
| 01006502 | PROFESSIONAL ETHICS | GED | | 3 |

This is Engineering Management and Entrepreneurship:

Grounded in engineering and management, we understand the world, invent and lead with creative design. We pursue 'big engineering' through innovations which may begin to manage locally, but scale broadly and quickly to impact people everywhere and from small to large entrepreneur.

Course EME at KMITL's unique living and learning environment blurs the distinction between the online, the classroom, the research lab, and real-world applications.

Course EME aims to:

Study in basic Mathematics, Sciences, IT, Business, Entrepreneurship, Engineering Management disciplinary studies and technical electives, as well as general education. The selection of technical electives can be tailored to modules of student interest. The team project experiences in many courses approximate the professional environment that graduates will encounter in their future careers. Program culminating experiences include community service-learning course projects and capstone course design projects.

Prepare to lead in new and emerging fields with careers like:

Office Engineer, Entrepreneur Engineer, Innovation Officer, Data Analytics Engineer, Global Insights Consultant, Chief Resiliency Officer, Megacities Urban Planner, Engineering Management Specialist, Startup Founder / CEO / CTO, Innovation and Insights Officer, Product Lifecycle Executive, Resource Development Officer, Project Manager, BIM Engineer, BIM Manager etc.

Continue your education with a Master's degree.

Apply to MBA or Master of Engineering Program (MEng) to advance your knowledge and prepare for other leadership roles in industry, business sector or academia.

The B.Eng. in Engineering Management and Entrepreneurship at KMITL merges engineering science management and design with business, innovation, and entrepreneurship. EME program is offered jointly by the Department of Civil Engineering, Faculty of Engineering and the KMITL Business school. This program engages faculty and students in the study of engineering, commercial activity, entrepreneurship, technological innovation, and the organizations within which such activity occurs.

The EME program is a choice for students who have recently interested to focus on developing science engineering and business skills so as to prepare them to more efficiently participate in a complex and highly competitive technology-driven economy, based on the development of innovative, embryonic and start up ideas

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