



Business Engineering and Innovation
(International Program, New Program 2022)

Curriculum Name

English Bachelor of Engineering Program in Business Engineering and Innovation
(Multidisciplinary Curriculum) (International Program)

Name of Degree

Full Title in English Bachelor of Engineering (Business Engineering and Innovation)
(International program)

Abbreviated in English B.Eng. (Business Engineering and Innovation) (International program)

Objectives

1. To produce graduates, each of who is a combination between an engineering technologist and a business administrator. They are engineers with business acumen who can help an organization to solve difficult decision-making problems, based on knowledge of data science and analytics.

2. To produce engineers with multidisciplinary skills including industrial engineering, digital engineering, business management, and data science and analytics. They act as bridges of communication between different departments in an organization.

3. To produce engineers with skills of developing design and innovation along with project management ability.

4. Enable graduates to have a proven communication in English and Japanese languages



Program Highlights

Business Engineering and Innovation (BEI) curriculum is designed to create engineers which are skillful in both engineering and business management. They also have abilities of using analytical techniques, based on Data Science and Data Analytics. By following this program, the students will be developed their knowledge in fundamental engineering processes, industrial management, information technology skills, global business administration, finance and economics along with language and communication skills. In addition, they will learn processes of designing products and services together with project management.

Post-Graduation Career Opportunities

- (1) Business engineer
- (2) Innovation management engineer
- (3) Project manager / Project management engineer
- (4) Application engineer for industry and business sectors
- (5) Data analyst / Data scientist in business, industry, and banking sectors
- (6) Factory manager / Industrial engineer
- (7) International logistics manager / International logistics engineer
- (8) Entrepreneur



Curriculum structure total 129 credits

Curriculum Structure

(1) General Education Minimum	30 Credits
1. Social Sciences and Humanities	3 Credits
2. Languages	24 Credits
3. Science and Mathematics	3 Credits
(2) Specific Course Minimum	93 Credits
2.1 Core Courses	28 Credits
2.2 Major Courses	43 Credits
2.3 Elective Courses	15 Credits
2.4 Practice Courses	
(I) Cooperative study	7 Credits
(II) Projects and practices	7 Credits
(3) Free Elective Course Minimum	6 Credits
Free Elective Course Minimum	6 Credits



Year 1/ First Semester

Course code	Course Title	Credits
BEI-102	Fundamental Physics	3 (2-3-6)
BEI-103	Object-Oriented Programming	3 (3-0-6)
BEI-104	Object-Oriented Programming Laboratory	1 (0-3-2)
BEI-105	Calculus 1	3 (3-0-6)
BEI-302	Principles of Marketing	3 (3-0-6)
ENE-101	Listening & Speaking for Specific Purposes	3 (3-0-6)
JPE-101	Communicative Japanese 1	3 (3-0-6)
	Total	19 (17-6-38)

Year 1/ Second Semester

Course code	Course Title	Credits
BEI-101	Statistics and Probability	3 (3-0-6)
BEI-106	Calculus 2	3 (3-0-6)
BEI-204	Engineering Mechanics	3 (3-0-6)
BEI-301	Business Finance	3 (3-0-6)
ENE-102	Critical Reading	3 (3-0-6)
JPE-102	Communicative Japanese 2	3 (3-0-6)
	Total	18 (18-0-36)



Year 2/ First Semester

Course code	Course Title	Credits
BEI-201	Introduction to Data Science for Engineers	3 (3-0-6)
BEI-202	Introduction to Data Analytics for Engineers	3 (3-0-6)
BEI-303	Engineering Economics	3 (3-0-6)
ENE-201	Professional Project Based Presentation	3 (3-0-6)
JPE-201	Communicative Japanese 3	3 (3-0-6)
XXX-XXX	Free Elective	3 (3-0-6)
	Total	18 (18-0-36)

Year 2/ Second Semester

Course code	Course Title	Credits
BEI-203	Fundamental Electrical Engineering	3 (2-3-6)
BEI-205	Materials and Manufacturing Processes	3 (3-0-6)
BEI-304	Statistical Quality Control	3 (3-0-6)
BEI-309	Managerial Accounting	3 (3-0-6)
ENE-202	Business Writing	3 (3-0-6)
JPE-202	Communicative Japanese 4	3 (3-0-6)
	Total	18 (17-3-36)



Year 3/ First Semester

Course code	Course Title	Credits
BEI-305	Business Ideation and Model for Entrepreneur	3 (3-0-6)
BEI-306	Global Logistics and Shipping Management	3 (3-0-6)
BEI-307	Production Planning and Work Study	3 (3-0-6)
BEI-313	Project Management	3 (3-0-6)
BEI-XXX	Approved Elective	3 (3-0-6)
XXX-XXX	Social Sciences and Humanities	3 (3-0-6)
	Total	18 (18-0-36)

Year 3/ Second Semester

Course code	Course Title	Credits
BEI-308	Product Drawing and Design	3 (2-3-6)
BEI-310	Startup Entrepreneurship and Innovation Managements	3 (3-0-6)
BEI-311	Data Analytics for E-commerce	3 (3-0-6)
BEI-312	Optimization Theories	3 (3-0-6)
BEI-314	Artificial Intelligence	3 (3-0-6)
BEI-315	Field Study in Innovative Enterprises	1 (0-3-2)
BEI-491	Pre-cooperative Education and Pre-practice	1 (1-0-2)
BEI-XXX	Approved Elective	3 (3-0-6)
	Total	20 (18-6-40)



Year 4/ First Semester

Course code	Course Title	Credits
BEI-492	Cooperative Education	6 (0-40-10)
	Total	6 (0-40-10)

Year 4/ Second Semester

Course code	Course Title	Credits
BEI-XXX	Approved Elective	3 (3-0-6)
BEI-XXX	Approved Elective	3 (3-0-6)
BEI-XXX	Approved Elective	3 (3-0-6)
XXX-XXX	Free Elective	3 (3-0-6)
	Total	12 (12-0-24)



Thai-Nichi Institute of Technology

Estimated Fees for International College

Bachelor of Engineering Program in Business Engineering and Innovation

Total Credit Requirement 129 Credits

List	First Year		Second Year		Third Year		Fourth Year	
	Semester I	Semester II	Semester I	Semester II	Semester I	Semester II	Semester I	Semester II
1) Matriculation Fee / ค่าขึ้นทะเบียนนักศึกษา	10,000	-	-	-	-	-	-	-
2) Education Fee / ค่าบำรุงการศึกษา	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
3) Tuitions Fees / ค่าหน่วยกิตลงทะเบียน								
- Lecture / รายวิชาทฤษฎี	52,600	50,400	50,400	52,600	50,400	55,400	-	33,600
- Lab / Co-operative Education / Internship	5,000	-	-	-	-	5,000	30,000	-
Estimates / Semester	74,600	57,400	57,400	59,600	57,400	67,400	37,000	40,600
Estimates / Year	132,000		117,000		124,800		77,600	
Estimate / Total Fee	451,400							

- Remarks**
1. These are estimated fees which can be changed without advance notice. / ข้อมูลดังกล่าว เป็นเพียงการประมาณค่าใช้จ่ายเท่านั้น ทั้งนี้ขอสงวนสิทธิ์ในการเปลี่ยนแปลงข้อมูลตามประกาศและนโยบายของสถาบัน โดยไม่แจ้งให้ทราบล่วงหน้า
 2. Further details can be found in the student handbook. / รายละเอียดวิชาการลงทะเบียน แผนการศึกษา ค่าใช้จ่ายต่างๆ สามารถตรวจสอบจากคู่มือนักศึกษา ของปีการศึกษาที่เข้าศึกษา
 3. The estimated fee is in Thai Baht. / ค่าใช้จ่ายนี้จะต้องชำระเป็นสกุลเงินบาท

อ้างอิงจากแผนการศึกษา (สหกิจ)

งานทะเบียนและประมวลผล