

School of Information Technology
Bachelor program in Computer Engineering, Industrial 4.0 Branch

* = Under Project ASEAN FACTORI 4.0 (609854-EPP-1-2019-1-FR-EPPKA2 CBHE-JP)

Year I

Total Credits: 36.0

Total

hours: 705.0

Semester

1

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Thai for Communication	3.0	3.0	0.0	45.0
2	English for Communication 1	3.0	3.0	0.0	45.0
3	Sciences and Mathematics All Around	3.0	3.0	0.0	45.0
4	Introduction to Information Technology and Data Science	3.0	2.0	2.0	60.0
5	Computer Engineering Essentials	3.0	3.0	0.0	45.0
6	MFU Character	0.0		6.0	90.0
7	Computer Programming	3.0	2.0	2.0	60.0
		18.0	16.0	10.0	390.0

Semester

2

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Psychology in Daily Life	3.0	3.0	0.0	45.0
2	English for Communication 2	3.0	3.0	0.0	45.0
3	Electric Circuits and Electronics Devices	3.0	2.0	2.0	60.0
4	Mathematics for Engineering 1	3.0	3.0	0.0	45.0
5	Object-Oriented Programming	3.0	2.0	2.0	60.0
6	Data Structures and Algorithms	3.0	2.0	2.0	60.0
		18.0	15.0	6.0	315.0

Year II

Total Credits: 36.0

Total

hours: 720.0

Semester

1

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Engineering Programming	3.0	2.0	2.0	60.0
2	Mathematics for Engineering 2	3.0	2.0	2.0	60.0
3	Database Systems	3.0	2.0	2.0	60.0
4	Fundamentals of Digital Logic and Microcontrollers	3.0	2.0	2.0	60.0
5	Data Communications and Networks	3.0	2.0	2.0	60.0
6	Introduction to Data Science	3.0	2.0	2.0	60.0

		18.0	12.0	12.0	360.0
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**Semester
2**

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Mobile Application Development	3.0	2.0	2.0	60.0
2	Mathematics for Engineering 3	3.0	2.0	2.0	60.0
3	Computer Architecture & Operating Systems	3.0	2.0	2.0	60.0
4	Artificial Intelligence Applications	3.0	2.0	2.0	60.0
5	Information Technology and Cybersecurity	3.0	2.0	2.0	60.0
6	Embedded System and Internet of Things*	3.0	2.0	2.0	60.0
		18.0	12.0	12.0	360.0

**Year III
Semester
1**

Total Credits: 36.0 Total hours: 630.0

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Web Application Development	3.0	2.0	2.0	60.0
2	Software Project Development	3.0	3.0	0.0	45.0
3	Global Citizenship	3.0	3	0	45.0
4	Chinese 1	3.0	3.0	0.0	45.0
5	Fundamental of Electrical Engineering*	3.0	3.0	0.0	45.0
6	Model Based Design*	3.0	2.0	2.0	60.0
		18.0	16.0	4.0	300.0

**Semester
2**

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Managing Organization and Entrepreneurship	3.0	3.0	0.0	45.0
2	Computer Engineering Pre-Project	3.0	0.0	9.0	135.0
3	Chinese 2	3.0	3.0	0.0	45.0
4	Free Elective 1	3.0			
5	Electronics and Electric Drives*	3.0	3.0	0.0	45.0
6	Sequence Control and PLC*	3.0	2.0	2.0	60.0
		18.0	11.0	11.0	330.0

**Year IV
Semester
1**

Total Credits: 15.0

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Computer Engineering Project	3.0	0.0	9.0	135.0
3	Free Elective 2	3.0			0.0
4	Computer Control Systems*	3.0	3.0	0.0	45.0
5	Robotics and Applications*	3.0	3.0	0.0	45.0
6	Intelligent Control Systems*	3.0	2	2	60.0
		15.0	8.0	11.0	285.0

Semester

2

No.	Subject	Credit	Lecture Hour /week	Lab hour/ week	Hour / semester
1	Co-operative Education	9.0		40	600.0