

STUDY PLAN

Mechatronics Engineering and Artificial Intelligence (MCE AI)

FIRST YEAR

First Semester

Code	Subjects	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BG 1204	Calculus I	3 (3-0-6)
BG 1211	Physics I	3 (3-0-6)
BG 1212	Physics Laboratory I	1 (0-3-2)
BG 1221	Computer Programming	3 (3-0-6)
ME 1113	Engineering Drawing	3 (2-3-6)
ME 1114	Engineering Workshop	2 (0-4-2)

Students select 1 from the following 2 (2-0-4)
3 courses:

GE 1410	Thai for Professional Communication (for Thai students)	
GE 1411	Thai Language for Multicultural Communication (for non-Thai students)	
GE 1412	Introductory Thai Usage (for Thai students from international program)	

Total 20 (15-13-38)

Second Semester

Code	Subjects	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BG 0008	General Chemistry Laboratory	1 (0-3-2)
BG 1108	General Chemistry	3 (3-0-6)
BG 1205	Calculus II	3 (3-0-6)
BG 1213	Physics II	3 (3-0-6)
BG 1214	Physics Laboratory II	1 (0-3-2)
BG 2208	Discrete Mathematics	3 (3-0-6)
IE 1110	Engineering Materials	3 (3-0-6)
Total		20 (17-9-40)

SECOND YEAR

First Semester

Code	Subjects	Credits
ELE 2000	Academic English	3 (2-3-6)
BG 2212	Applied Statistics	3 (3-0-6)
CE 2704	Digital Logic Design	3 (3-0-6)
CE 2705	Digital Logic Design Lab.	1 (0-3-2)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
MCE 2101	Fundamental of Mechatronics Engineering	3 (3-0-6)
MCE 2102	Mechatronics Engineering Laboratory I	1 (0-3-2)
ME 2211	Engineering Mechanics I	3 (3-0-6)
Total		21 (17-12-42)

Second Semester

Code	Subjects	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
CE 2102	Data Structures and Algorithms	3 (3-0-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
EE 2410	Electrical Machine Systems	3 (3-0-6)
EE 2411	Electrical Machine System Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
ME 2220	Engineering Mechanics II	3 (3-0-6)
Total		20 (17-9-40)

THIRD YEAR

First Semester

Code	Subjects	Credits
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
CE 4715	Artificial Intelligence I	3 (3-0-6)
EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
ME 3120	Mechanics of Machinery	3 (3-0-6)
ME 3311	Pneumatic and Hydraulic Systems	3 (3-0-6)
ME 3312	Pneumatic and Hydraulic Laboratory	1 (0-3-2)
Total		19 (18-3-38)

Second Semester

Code	Subjects	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
CE 4716	Artificial Intelligence II	3 (3-0-6)
EE 3406	Control Systems	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
ME 3110	Mechanics of Materials	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total		17 (16-2-33)

FORTH YEAR

First Semester

Code	Subjects	Credits
GE 2202	Ethics	3 (3-0-6)
MCE 4101	Introduction to Robotics	3 (3-0-6)
MCE 4103	Mechatronics Engineering Laboratory II	1 (0-3-2)
MCE 4911	Mechatronics Engineering and Artificial Intelligence Project I	1 (0-3-2)
	One Major Elective Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total		14 (12-6-28)

Second Semester

Code	Subjects	Credits
GE 1303	Science for Sustainable Future	2 (2-0-4)
MCE 4104	Automation Technology 4.0	3 (3-0-6)
MCE 4201	Advanced Robotics and Control	3 (3-0-6)
MCE 4912	Mechatronics Engineering and Artificial Intelligence Project II	2 (0-6-3)
	One Major Elective Course	3 (3-0-6)
Total		13 (11-6-25)