AY2020-21 CURRICULUM FOR COMPUTER ENGINEERING
2ND MAJOR IN BUSINESS (INTERNATIONAL TRADING PROGRAMME)

Last Updated :   29-May-21

Option 1: 10-week Professional Attachment (PA)

				SUMMARY OF ACADEMIC UNIT REQUIREMENT			
Year of Study	Core	MPE	GER-Core	ITP Track Courses	UE (2nd Major)	UE	Total AU
1	23	0	8	0	7	0	38
2	21	0	4	6	7	0	38
3	24	6	2	4	0	5	41
4	7	12	0	6	0	0	25
Total	75	18	14	16	14	5	142

Option 1: 10-week Professional Attachment (PA)

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
CE1103	Introduction to Computational Thinking & Programming	C	3	
CE1105	Digital Logic	C	3	
CE1113	Physics for Computing	C	2	
AB1201	Financial Management	UE (2nd Major)	3	
HW0111	Communication: A Journey of Inquiry through Writing and Speech	GER-Core	2	HW0001 (can be taken concurrently)
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1	online course
HY0001	Ethics & Moral Reasoning	GER-Core	1	online course
HW0001	Introduction to Academic Communication	GER-Core	0	For students who failed QET
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1812	Discrete Mathematics	C	3	
CE1106	Computer Organisation and Architecture	C	3	CE1105 (can be taken concurrently)
CE1107	Data Structures and Algorithms	C	3	CE1103
	Engineering Fundamentals 2	C	3	
BE1401	Business Operations and Processes	UE (2nd Major)	4	
CE1115	Introduction to Data Science and Artificial Intelligence	GER-Core	3	CE1103
ET0001	Enterprise & Innovation	GER-Core	1	online course
			20	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE1104	Linear Algebra for Computing	C	3	MH1810
CE2100	Probability and Statistics for Computing	C	3	MH1810
CE3002	Sensors, Interfacing & Control	C	3	CE1106
CE2107	Microprocessor System Design and Development	C	3	CE1106
BF2218	Commodity Markets	ITP Track Course	4	
AD1101	Financial Accounting	UE (2nd Major)	4	
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE2101	Algorithm Design and Analysis	C	3	CE1107, MH1812
CE2003	Digital Systems Design	C	3	CE1105

Course Code	Course Title	Type	AU	Pre-Requisite
CE3103	Embedded Programming	C	3	CE2107
AB1501	Marketing	UE (2nd Major)	3	
BF3214	Commodities Trading	ITP Track Course	2	
EG0001	Engineers & Society	GER-Core	3	
ML0003	Kickstart your Career Success	GER-Core	1	online course
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3004	Multidisciplinary Design Project	C	4	CE2101, CE2004, CE2107 (can be taken concurrently)
CE2002	Object Oriented Design & Programming	C	3	CE1103
CE2005	Operating Systems	C	3	CE1106, CE1107
CE2006	Software Engineering	C	3	CE2002 (can be taken concurrently)
CE3005	Computing Networks	C	3	CE1104, CE2100
BF2216	Trade Incoterms & Ship Chartering	ITP Track Course	4	
HW0288	Engineering Communication	GER-Core	2	HW0111, Year 3 Standing
			22	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3001	Advanced Computer Architecture	C	3	CE1106
CE/CZ4XXX	Prescribed Elective 1	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 2	MPE	3	Depends on MPE
	Unrestricted Elective	UE	3	
	Unrestricted Elective	UE	2	
			14	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3126	Professional Attachment	C	5	ML0003, Year 3 Standing
			5	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project	C	4	Final Year Standing
CE3102	Signal, Systems and Transform	C	3	CE1104
CE/CZ4XXX	Prescribed Elective 3	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 4	MPE	3	Depends on MPE
BF2302	International Tax and Trading Law	ITP Track Course	2	
			15	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project (cont)	C	4	
CE/CZ4XXX	Prescribed Elective 5	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 6	MPE	3	Depends on MPE
BF3212	Trade, Structured & Supply Chain Finance	ITP Track Course	2	
BF3213	Enterprise Risk Management in Commodity Markets	ITP Track Course	2	

			14	
		Total AU for Graduation :	146	

Option 2: 20-week Professional Internship (PI)

Year of Study	Core	MPE	GER-Core	ITP Track Courses	UE (2nd Major)	UE	Total AU
SUMMARY OF ACADEMIC UNIT REQUIREMENT							
1	23	0	8	0	7	0	**38**
2	21	0	4	6	7	0	**38**
3	26	0	2	4	0	0	**32**
4	14	18	0	6	0	0	**38**
Total	**84**	**18**	**14**	**16**	**14**	**0**	**146**

Option 2: 20-week Professional Internship (PI)

Course Code	Course Title	Type	AU	Pre-Requisite
YEAR 1 SEMESTER 1				
MH1810	Mathematics I	C	3	
CE1103	Introduction to Computational Thinking & Programming	C	3	
CE1105	Digital Logic	C	3	
CE1113	Physics for Computing	C	2	
AB1201	Financial Management	UE (2nd Major)	3	
HW0111	Communication: A Journey of Inquiry through Writing and Speech	GER-Core	2	HW0001 (can be taken concurrently)
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1	online course
HY0001	Ethics & Moral Reasoning	GER-Core	1	online course
HW0001	Introduction to Academic Communication	GER-Core	0	For students who failed QET
			18	

Course Code	Course Title	Type	AU	Pre-Requisite
YEAR 1 SEMESTER 2				
MH1812	Discrete Mathematics	C	3	
CE1106	Computer Organisation and Architecture	C	3	CE1105 (can be taken concurrently)
CE1107	Data Structures and Algorithms	C	3	CE1103
	Engineering Fundamentals 2	C	3	
BE1401	Business Operations and Processes	UE (2nd Major)	4	
CE1115	Introduction to Data Science and Artificial Intelligence	GER-Core	3	CE1103
ET0001	Enterprise & Innovation	GER-Core	1	online course
			20	

Course Code	Course Title	Type	AU	Pre-Requisite
YEAR 2 SEMESTER 1				
CE1104	Linear Algebra for Computing	C	3	MH1810
CE2100	Probability and Statistics for Computing	C	3	MH1810
CE3002	Sensors, Interfacing & Control	C	3	CE1106
CE2107	Microprocessor System Design and Development	C	3	CE1106
BF2218	Commodity Markets	ITP Track Course	4	
AD1101	Financial Accounting	UE (2nd Major)	4	
			20	

Course Code	Course Title	Type	AU	Pre-Requisite
YEAR 2 SEMESTER 2				
CE2101	Algorithm Design and Analysis	C	3	CE1107, MH1812
CE2003	Digital Systems Design	C	3	CE1105
CE3103	Embedded Programming	C	3	CE2107

Course Code	Course Title	Type	AU	Pre-Requisite
AB1501	Marketing	UE (2nd Major)	3	
BF3214	Commodities Trading	ITP Track Course	2	
EG0001	Engineers & Society	GER-Core	3	
ML0003	Kickstart your Career Success	GER-Core	1	online course
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3004	Multidisciplinary Design Project	C	4	CE2101, CE2004, CE2107 (can be taken concurrently)
CE2002	Object Oriented Design & Programming	C	3	CE1103
CE2005	Operating Systems	C	3	CE1106, CE1107
CE2006	Software Engineering	C	3	CE2002 (can be taken concurrently)
CE3005	Computing Networks	C	3	CE1104, CE2100
BF2216	Trade Incoterms & Ship Chartering	ITP Track Course	4	
HW0288	Engineering Communication	GER-Core	2	HW0111, Year 3 Standing
			22	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3179	Professional Internship	C	10	ML0003, Year 3
			10	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project	C	-	Final Year Standing
CE3102	Signal, Systems and Transform	C	3	CE1104
CE3001	Advanced Computer Architecture	C	3	CE1106
CE/CZ4XXX	Prescribed Elective 1	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 2	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 3	MPE	3	Depends on MPE
BF2302	International Tax and Trading Law	ITP Track Course	2	
			17	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project	C	8	Final Year Standing
CE/CZ4XXX	Prescribed Elective 4	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 5	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 6	MPE	3	Depends on MPE
BF3212	Trade, Structured & Supply Chain Finance	ITP Track Course	2	
BF3213	Enterprise Risk Management in Commodity Markets	ITP Track Course	2	
			21	

	Total AU for Graduation :	**146**	