

**AY2020-21 CURRICULUM FOR COMPUTER ENGINEERING
DOUBLE DEGREE IN ECONOMICS**

Option 1: 10-week Professional Attachment (PA)

Last Updated : 29-05-21

SUMMARY OF ACADEMIC UNIT REQUIREMENT						
Year of Study	Core	MPE	GER-Core	GER-PE	UE	Total AU
1	32	0	11	0	0	43
2	33	0	0	0	0	33
3	24	9	3	0	3	39
4	15	18	0	0	2	35
5	0	30	0	0	0	30
Total	104	57	14	0	5	180

Option 1: 10-week Professional Attachment (PA)

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
EG0001	Engineers and Society	GER-Core	3	
CE1103	Introduction to Computational Thinking & Programming	C	3	
CE1113	Physics for Computing	C	2	
HE1001	Microeconomic Principles	C	3	
HE1002	Macaoeconomic Principles	C	3	
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1	online course
HY0001	Ethics & Moral Reasoning	GER-Core	1	online course
HW0111	Communication: A Journey of Inquiry through Writing and Speech	GER-Core	2	HW0001 (can be taken concurrently)
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1812	Discrete Mathematics	C	3	
CE1105	Digital Logic (Engineering Fundamentals 1)	C	3	
CE1106	Computer Organisation and Architecture	C	3	CE1105 (can be taken concurrently)
	Engineering Fundamentals 2	C	3	
HE1005	Intro to Probability & Statistical Inference	C	3	
HE2001	Intermediate Microeconomics	C	3	HE1001
CE1115	Introduction to Data Science and Artificial Intelligence	GER-Core	3	CE1103
ET0001	Enterprise & Innovation	GER-Core	1	online course
			22	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE1104	Linear Algebra for Computing	C	3	MH1810
CE1107	Data Structures and Algorithms	C	3	CE1103
CE2002	Object Oriented Design & Programming	C	3	CE1103
CE2107	Microprocessor System Design and Development	C	3	CE1106
HE2005	Principles of Econometrics	C	3	HE1005
			15	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CE2100	Probability and Statistics for Computing	C	3	MH1810
CE2003	Digital Systems Design	C	3	CE1105
CE3103	Embedded Programming	C	3	CE2107
CE2101	Algorithm Design and Analysis	C	3	CE1107, MH1812
HE2002	Intermediate Macroeconomics	C	3	HE1002
HE3021	Intermediate Econometrics	C	3	HE2005 or at least an A grade in HE2004
			18	

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CE3002	Sensors, Interfacing & Control	C	3	CE1106
CE2005	Operating Systems	C	3	CE1106, CE1107
CE2006	Software Engineering	C	3	CE2002 (can be taken concurrently)
CE3005	Computing Networks	C	3	CE1104, CE2100
	Unrestricted Elective	UE	3	
	Econs PE 1	MPE	3	HE1005, HE2005
ML0003	Kickstart your Career Success	GER-Core	1	online course
			19	

YEAR 3 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CE3004	Multidisciplinary Design Project	C	4	Year 3 standing
CE3001	Advanced Computer Architecture	C	3	CE1106
CE/CZ4XXX	Prescribed Elective 1	MPE	3	Depends on MPE
HW0288	Engineering Communication	GER-Core	2	HW0111, Year 3 Standing
	Econs PE 2	MPE	3	HE1005, HE2005
			15	

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	-	Final Year Standing
CE3102	Signal, Systems and Transform	C	3	
CE/CZ4XXX	Prescribed Elective 2	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 3	MPE	3	Depends on MPE
HE4010	Singapore Economy in a Globalised World	C	4	HE2001, HE2002
	Econs PE 3	MPE	3	HE1005, HE2005

			16	
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YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project (cont)	C	8	
CE/CZ4XXX	Prescribed Elective 4	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 5	MPE	3	Depends on MPE
	Econs PE 4	MPE	3	HE1005, HE2005
	Unrestricted Elective	UE	2	
			19	

YEAR 5 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CE/CZ4XXX	Prescribed Elective 6	MPE	3	Depends on MPE
	Econs PE 5	MPE	3	HE1005, HE2005
	Econs PE 6	MPE	3	HE1005, HE2005
	Econs PE 7	MPE	3	HE1005, HE2005
	Econs PE 8	MPE	3	HE1005, HE2005
			15	

YEAR 5 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
	Econs PE 9	MPE	3	HE1005, HE2005
	Econs PE 10	MPE	4	HE1005, HE2005
	Econs PE 11	MPE	4	HE1005, HE2005
	Econs PE 12	MPE	4	HE1005, HE2005
			15	

Total AU for Graduation : **180**

Option 2: 20-week Professional Internship (PI)

SUMMARY OF ACADEMIC UNIT REQUIREMENT						
Year of Study	Core	MPE	GER-Core	GER-PE	UE	Total AU
1	32	0	11	0	0	43
2	36	0	0	0	0	36
3	13	21	2	0	0	36
4	20	9	0	0	0	29
5	8	27	1	0	0	36
Total	101	57	14	0	0	180

Option 2: 20-week Professional Internship (PI)

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
EG0001	Engineers and Society	GER-Core	3	
CE1103	Introduction to Computational Thinking & Progr	C	3	
CE1113	Physics for Computing	C	2	
HE1001	Microeconomic Principles	C	3	
HE1002	Macaoeconomic Principles	C	3	
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1	online course
HY0001	Ethics & Moral Reasoning	GER-Core	1	online course
HW0111	Communication: A Journey of Inquiry through Writing and Speech	GER-Core	2	HW0001 (can be taken concurrently)
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE1105	Digital Logic (Engineering Fundamentals 1)	C	3	
CE1106	Computer Organisation and Architecture	C	3	CE1105 (can be taken
	Engineering Fundamentals 2	C	3	
CE2003	Digital Systems Design	C	3	CE1105
HE1005	Intro to Probability & Statistical Inference	C	3	
HE2001	Intermediate Microeconomics	C	3	HE1001
CE1115	Introduction to Data Science and Artificial Intelli	GER-Core	3	CE1103
ET0001	Enterprise & Innovation	GER-Core	1	online course
			22	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1812	Discrete Mathematics	C	3	
CE1104	Linear Algebra for Computing	C	3	MH1810
CE1107	Data Structures and Algorithms	C	3	CE1103
CE2100	Probability and Statistics for Computing	C	3	MH1810
CE2107	Microprocessor System Design and Developmer	C	3	CE1106
HE2005	Principles of Econometrics	C	3	HE1005
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE2101	Algorithm Design and Analysis	C	3	CE1107, MH1812
CE2002	Object Oriented Design & Programming	C	3	CE1103
CE2005	Operating Systems	C	3	CE1106, CE1107
CE2008	Computing Networks	C	3	CE1104, CE2100
HE2002	Intermediate Macroeconomics	C	3	HE1002
HE3021	Intermediate Econometrics	C	3	HE2005 or at least an A grade in HE2004
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE2006	Software Engineering	C	3	CE2002 (co)
CE3002	Sensors, Interfacing & Control	C	3	CE1106
CE3004	Multidisciplinary Design Project	C	4	CE2101, CE2004,
	Econs PE 1	MPE	3	HE1005, HE2005
	Econs PE 2	MPE	3	HE1005, HE2005
			16	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3103	Embedded Programming	C	3	CE2107
CE/CZ4XXX	Prescribed Elective 1	MPE	3	Depends on MPE
HW0288	Engineering Communication	GER-Core	2	HW0111, Year 3 Standing
	Econs PE 3	MPE	3	HE1005, HE2005
	Econs PE 4	MPE	3	HE1005, HE2005
	Econs PE 5	MPE	3	HE1005, HE2005
	Econs PE 6	MPE	3	HE1005, HE2005
			20	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3102	Signal, Systems and Transform	C	3	
CE3001	Advanced Computer Architecture	C	3	CE1106
CE/CZ4XXX	Prescribed Elective 2	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 3	MPE	3	Depends on MPE
HE4010	Singapore Economy in a Globalised World	C	4	HE2001, HE2002
	Econs PE 7	MPE	3	HE1005, HE2005
ML0003	Kickstart your Career Success	GER-Core	1	online course
			20	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE3079	Professional Internship	C	10	ML0003, Year 3
			10	

YEAR 5 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project	C	-	Final Year Standing
CE/CZ4XXX	Prescribed Elective 4	MPE	3	Depends on MPE
	Econs PE 8	MPE	3	HE1005, HE2005
	Econs PE 9	MPE	3	HE1005, HE2005
	Econs PE 10	MPE	4	HE1005, HE2005
			13	

YEAR 5 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CE4079	Final Year Project	C	8	
CE/CZ4XXX	Prescribed Elective 5	MPE	3	Depends on MPE
CE/CZ4XXX	Prescribed Elective 6	MPE	3	Depends on MPE
	Econs PE 11	MPE	4	HE1005, HE2005
	Econs PE 12	MPE	4	HE1005, HE2005
			22	

Total AU for Graduation : **180**