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

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	26	0	8	0	7	0	41
2	18	0	4	6	7	0	35
3	27	6	2	4	0	5	44
4	8	12	0	6	0	0	26
Total	79	18	14	16	14	5	146

Option 1: 10-week Professional Attachment (PA)

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
MH1812	Discrete Mathematics	C	3	
CZ1103	Introduction to Computational Thinking & Programming	C	3	
CZ1105	Digital Logic	C	3	
CZ1113	Physics for Computing	C	2	
AB1201	Financial Management	UE (2nd Major)	3	
HW0188	Effective Communication	GER-Core	2	
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
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ1104	Linear Algebra for Computing	C	3	
CZ1106	Computer Organisation and Architecture	C	3	CZ1105 (can be taken concurrently)
CZ1107	Data Structures and Algorithms	C	3	CZ1103
	Engineering Fundamentals 2	C	3	
BE1401	Business Operations and Processes	UE (2nd Major)	4	
CZ1115	Introduction to Data Science and Artificial Intelligence	GER-Core	3	CZ1103
ET0001	Enterprise & Innovation	GER-Core	1	
			20	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ2100	Probability and Statistics for Computing	C	3	MH1810
CZ2002	Object Oriented Design & Programming	C	3	CZ1103
CZ2005	Operating Systems	C	3	CZ1106, CZ1107
CZ2006	Software Engineering	C	3	CZ2002 (can be taken concurrently)
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
CZ2101	Algorithm Design and Analysis	C	3	CZ1107, MH1812
CZ2007	Introduction to Databases	C	3	CZ2101 (can be taken concurrently)
AB1501	Marketing	UE (2nd Major)	3	
BF3214	Commodities Trading	UE (2nd Major)	2	

Course Code	Course Title	Type	AU	Pre-Requisite
EG0001	Engineers & Society	GER-Core	3	
ML0003	Kickstart your Career Success	GER-Core	1	online course
			15	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3004	Multidisciplinary Design Project	C	4	CZ2101, CZ2006
CZ3006	Net Centric Computing	C	3	CZ1104, CZ2100
CZ3005	Artificial Intelligence	C	3	CZ1107, CZ1115, CZ2101
CZ4062	Computer Security	C	3	CZ2005
CZ4031	Database System Principles	C	3	CZ2007
BF2216	Trade Incoterms & Ship Chartering	ITP Track Course	4	
			20	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3002	Advanced Software Engineering	C	3	CZ2006
CZ3001	Advanced Computer Architecture	C	3	CZ1106
CZ4XXX	Prescribed Elective 1	MPE	3	
CZ4XXX	Prescribed Elective 2	MPE	3	
HW0288	Engineering Communication	GER-Core	2	HW0188, Year 3 Standing
	Unrestricted Elective	UE	3	
	Unrestricted Elective	UE	2	
			19	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3126	Professional Attachment	C	5	ML0003, Year 3 Standing
			5	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project	C	-	Final Year Standing
CZ4XXX	Prescribed Elective 3	MPE	3	
CZ4XXX	Prescribed Elective 4	MPE	3	
CZ4XXX	Prescribed Elective 5	MPE	3	
BF2302	International Tax and Trading Law	ITP Track Course	2	
			11	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project (cont)	C	8	
CZ4XXX	Prescribed Elective 5	MPE	3	
BF3212	Trade, Structured & Supply Chain Finance	ITP Track Course	2	
BF3213	Enterprise Risk Management in Commodity Markets	ITP Track Course	2	
			15	

Option 2: 20-week Professional Internship (PI)

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	Core	MPE	GER-Core	ITP Track Courses	UE (2nd Major)	UE	Total AU
1	26	0	8	0	7	0	**41**
2	21	0	4	6	7	0	**38**
3	26	0	2	4	0	0	**32**
4	11	18	0	6	0	0	**35**
Total	**84**	**18**	**14**	**16**	**14**	**0**	**146**

Option 2: 20-week Professional Internship (PI)

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
MH1812	Discrete Mathematics	C	3	
CZ1103	Introduction to Computational Thinking & Programming	C	3	
CZ1105	Digital Logic	C	3	
CZ1113	Physics for Computing	C	2	
AB1201	Financial Management	UE (2nd Major)	3	
HW0188	Effective Communication	GER-Core	2	
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
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ1104	Linear Algebra for Computing	C	3	
CZ1106	Computer Organisation and Architecture	C	3	CZ1105 (can be taken concurrently)
CZ1107	Data Structures and Algorithms	C	3	CZ1103
	Engineering Fundamentals 2	C	3	
BE1401	Business Operations and Processes	UE (2nd Major)	4	
CZ1115	Introduction to Data Science and Artificial Intelligence	GER-Core	3	CZ1103
ET0001	Enterprise & Innovation	GER-Core	1	
			20	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ2100	Probability and Statistics for Computing	C	3	MH1810
CZ2002	Object Oriented Design & Programming	C	3	CZ1103
CZ2005	Operating Systems	C	3	CZ1106, CZ1107
CZ2006	Software Engineering	C	3	CZ2002 (can be taken concurrently)
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
CZ2101	Algorithm Design and Analysis	C	3	CZ1107, MH1812
CZ2007	Introduction to Databases	C	3	CZ2101 (can be taken concurrently)
CZ3006	Net Centric Computing	C	3	CZ1104, CZ2100
AB1501	Marketing	UE (2nd Major)	3	
BF3214	Commodities Trading	ITP Track Course	2	
EG0001	Engineers & Society	GER-Core	3	

Course Code	Course Title	Type	AU	Pre-Requisite
ML0003	Kickstart your Career Success	GER-Core	1	online course
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3004	Multidisciplinary Design Project	C	4	CZ2101, CZ2006
CZ3005	Artificial Intelligence	C	3	CZ1107, CZ1115, CZ2101
CZ4062	Computer Security	C	3	CZ2005
CZ4031	Database System Principles	C	3	CZ2007
CZ3001	Advanced Computer Architecture	C	3	CZ1106
BF2216	Trade Incoterms & Ship Chartering	ITP Track Course	4	
			20	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3179	Professional Internship	C	10	ML0003, Year 3
			10	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project	C	-	Final Year Standing
CZ3002	Advanced Software Engineering	C	3	CZ2006
CZ4XXX	Prescribed Elective 1	MPE	3	
CZ4XXX	Prescribed Elective 2	MPE	3	
CZ4XXX	Prescribed Elective 3	MPE	3	
BF2302	International Tax and Trading Law	ITP Track Course	2	
HW0288	Engineering Communication	GER-Core	2	HW0188, Year 3
			16	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project (cont)	C	8	
CZ4XXX	Prescribed Elective 4	MPE	3	
CZ4XXX	Prescribed Elective 5	MPE	3	
CZ4XXX	Prescribed Elective 6	MPE	3	
BF3212	Trade, Structured & Supply Chain Finance	ITP Track Course	2	
BF3213	Enterprise Risk Management in Commodity Markets	ITP Track Course	2	
			21	