

AY2020-2021 Curriculum Data Science & Artificial Intelligence

Year of Study	Core	MPE	GER-Core	GER-PE	UE	Total AU
1	19	0	2	6	9	36
2	30	0	7	0	0	37
3	16	7	1	0	0	24
4	14	17	1	0	3	35
Total	79	24	11	6	12	135

Suggest Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1812	Discrete Mathematics	C	3	Nil
CZ1103	Introduction to Computational Thinking & Programming	C	3	Nil
MH1805	Calculus	C	4	Nil
HW0128	Scientific Communication I	GER-Core	2	Nil
	GER Prescribed Elective (BM)	GER-PE	3	Nil
	Unrestricted Elective	UE	3	Nil
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MH2802	Linear Algebra for Scientists	C	3	Nil
CZ1016	Introduction to Data Science	C	3	CZ1103
CZ1107	Data Structures and Algorithm	C	3	CZ1103
	GER Prescribed Elective (LA)	GER-PE	3	Nil
	Unrestricted Elective	UE	3	Nil
	Unrestricted Elective	UE	3	Nil
			18	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH2100	Calculus III	C	4	MH1805
MH2500	Probability and Statistics to Statistics	C	4	MH1805
CZ2101	Algorithm Design and Analysis	C	3	CZ1107, MH1812
CZ2002	Object Oriented Design & Programming	C	3	CZ1103
CZ2004	Human Computer Interaction	C	3	Nil
PS8001	Defence Science	GER Core	3	Nil
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MH3500	Statistics	C	4	MH2500
MH3511	Data Analysis with Computer	C	3	MH2500
CZ2006	Software Engineering	C	3	CZ2002 (Corequisite)
CZ2007	Introduction to Databases	C	3	CZ2101 (Corequisite)
HW0228	Scientific Communication II	GER-Core	2	HW0128, Year 3 Standing
ML0003	Kickstart your Career Success	GER-Core	1	online course
ET0001	Enterprise & Innovation	GER-Core	1	online course
			17	

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CZ3005	Artificial Intelligence	C	3	CZ1107, CZ1115*
CZ4032	Data Analytics and Mining	C	3	CZ2101
MH/PHxxxx	Prescribed Elective	MPE	4	Year 3 standing
CZ4XXX	Prescribed Elective	MPE	3	Year 3 standing
GC0001	Sustainability: Seeing Through the Haze	GER-Core	1	online course
	Unrestricted Elective	UE	3	Nil
			17	

YEAR 3 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CD3179	Professional Internship	C	10	ML0003, Year 3 standing
			10	

YEAR 4 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project	C	4	Final year standing
CZ4042	Neural Networks & Deep Learning	C	3	CZ1107, MH2802
MH/PHxxxx	Prescribed Elective	MPE	4	Year 3 standing
CZ4XXX	Prescribed Elective	MPE	3	Year 3 standing
CZ4XXX	Prescribed Elective	MPE	3	Year 3 standing
HY0001	Ethics & Moral Reasoning	GER-Core	1	online course
			18	

YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
CZ4079	Final Year Project (cont)	C	4	Final Year Standing
CZ4041	Machine Learning	C	3	CZ1107 & MH2802
MH/PHxxxx	Prescribed Elective	MPE	4	Year 3 standing
CZ4XXX	Prescribed Elective	MPE	3	Year 3 standing
	Unrestricted Elective	UE	3	Nil
			17	