

**AY2022-23 CURRICULUM FOR BACHELOR OF ENGINEERING (ENVIRONMENTAL ENGINEERING)  
WITH SECOND MAJOR IN DATA ANALYTICS - PROFESSIONAL ATTACHMENT  
(FIRST YEAR ADMISSION)**

Last Updated : 7-Mar-22

SUMMARY OF ACADEMIC UNIT REQUIREMENT						
Year of Study	Core	MPE	CC	FC	BDE	Total AU
1	26	0	9	0	0	35
2	23	0	8	3	6	40
3	12	3	0	7	14	36
4	19	0	0	0	9	28
<b>Total</b>	<b>80</b>	<b>3</b>	<b>17</b>	<b>10</b>	<b>29</b>	<b>139</b>

\* Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

^ The Course will be double counted towards Primary Programme and Second Major in Data Analytics

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics 1	C	3	
PH1011	Physics*	C	3	
FE1073	An Introduction to Engineering & Practices	C	1	
CV1011	Mechanics of Materials	C	4	
CV1012	Fluid Mechanics	C	3	
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2	
CC0002	Navigating the Digital World	CC	2	
			<b>18</b>	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1811	Mathematics 2	C	3	MH1810
CV1014 ^	Introduction To Computational Thinking	C	3	
CV1711	Engineering Drawing and 3D Building Information Modelling	C	1	
CV2020	Water Resources Engineering	C	3	CV1012
EG1001	Engineers In Society	C	2	
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2	
CC0005	Healthy Living & Wellbeing	CC	3	
			<b>17</b>	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CV2011	Structural Analysis I	C	3	CV1011
EN1001	Environmental Chemistry	C	3	
EN2004	Soil Environment and Soil Mechanics	C	3	
EN2711	Environmental Engineering Laboratory A	C	1	
MH2814 ^	Probability & Statistics	C	3	MH1810
CV0003	Introduction to Data Science and Artificial Intelligence	FC	3	CV1014
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			<b>21</b>	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
EN2002	Environmental Biology and Microbiology	C	3	
EN2003	Water Supply Engineering	C	3	CV1012
EN2712	Environmental Engineering Laboratory B	C	1	
EN3003	Environmental Transport Processes	C	3	

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CC0007	Science & Technology for Humanity	CC	3	
CV2019	Matrix Algebra & Computational Methods	BDE-DA	3	
MH1403	Algorithms and Computing	BDE-DA	3	CV1014
			<b>19</b>	

**YEAR 3 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite
EN3001	Solid & Hazardous Waste Management	C	3	Year 3 Standing
EN3002	Wastewater Engineering	C	3	Year 3 Standing
EN3004	Air Pollution Control Engineering	C	3	Year 3 Standing
EN3006	Energy Resource Engineering	C	3	
HW0288	Engineering Communication	FC	2	CC0001
SC4024	Data Visualization	BDE-DA	3	CV1014 & MH2814
			<b>17</b>	

**YEAR 3 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite
EN4XXX	Major Prescribed Elective	MPE	3	Refer to Syllabus
SC2207	Introduction to Database	BDE-DA	3	MH1403
	Data Analytics Elective Course	BDE-DA	3	Refer to Syllabus
	Broadening & Deepening Electives 1	BDE	3	
	Broadening & Deepening Electives 2	BDE	2	
			<b>14</b>	

**YEAR 3 SPECIAL SEMESTER**

Course Code	Course Title	Type	AU	Pre-Requisite
CV3915	Professional Attachment	FC	5	Year 3 standing & completed at least 4 semesters of study
			<b>5</b>	

**YEAR 4 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite
CV4012	Project Planning & Management	C	2	Year 4 Standing
EN4001	Environmental Impact Analysis & Monitoring	C	3	
EN4711	Seminars & Site Visits	C	1	
EN4911	Final Year Project	C	4	Year 4 Standing
EE4483	Artificial Intelligence & Data Mining	BDE-DA	3	CV2019 & CV0003
	Data Analytics Elective Course	BDE-DA	3	
			<b>16</b>	

**YEAR 4 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite
EN4003	Environmental Systems Analysis	C	2	
EN4911	Final Year Project	C	4	Year 4 Standing
EN4912	Integrated Design Project	C	3	Year 4 Standing
	Data Analytics Elective Course	BDE-DA	3	
			<b>12</b>	

Total AU for Graduation : **139**