Hydrology and Water Resources Management

Course Title	Course Code	Course Type	Credit Hour
Semester 1			
GEN(NS)		General	3
Functional English	GENG-101	General	3
Civics and Community Engagement	GCCE-101	General	2
Islamic Studies / Ethics (for Non-Muslims)	GISL-101 / GETH-101	General	2
Fundamentals of Groundwater Hydrology	HWRM-102	Major	3
Tarjuma-e-Quran	HQ-001	Compulsory	0
Introduction to Hydrology	HWRM-101	Major	03
			Total Credit Hours 16
Semester 2			
GEN(AH)		General	2
Quantitative Reasoning (I)	GQR-101	General	3
Entrepreneurship	GENT-101	General	2
Ideology and Constitution of Pakistan	GICP-101	General	2
Survering Techniques for Water Resources Development	HWRM-104	Major	3
Hydrometeorology	HWRM-103	Major	3
Tarjuma-e-Quran	HQ-002	Compulsory	1
			Total Credit Hours 16
Semester 3			
Applications of Information and Communication Technologies	GICT-201	General	3
Expository Writing	GENG-201	General	3
Introduction to Fluid Mehchanics	HWRM-203	Major	3
Groundwater Development and Exploration	HWRM-202	Major	3
Irrigation (I)	HWRM-201	Major	3
Tarjuma-e-Quran	HQ-003	Compulsory	0
Pakistan Studies.	GPST-201	General	2
			Total Credit Hours 17
Semester 4			
GEN(SS)		General	2
Quantitative Reasoning (II)	GQR-201	General	3
Urban Hydrology	HWRM-206	Major	3
Soil and Water Conservation	HWRM-205	Major	3
Surface Water Hydrology	HWRM-204	Major	3
Tarjuma-e-Quran	HQ-004	Compulsory	1
			Total Credit Hours 15
Semester 5			
Hydrochemistry and Pollution Control	HWRM-302	Interdisciplinary	3
Statistical Methods in Hydrology	HWRM-301	Interdisciplinary	3
Applied Climatology	HWRM-305	Major	3
Soil Mechanics	HWRM-304	Major	3
Water Resources System Analysis	HWRM-303	Major	3
Tarjuma-e-Quran	HQ-005	Compulsory	0
Water Resources Laws and Transboudary Issues	HWRM-306	Major	02
			Total Credit Hours 17
Semester 6			
Introduction to GIS and Remote Sensing	HWRM-308	Interdisciplinary	3
Hydro-informatics	HWRM-307	Interdisciplinary	3
Irrigation (II)	HWRM-311	Major	3
Open Channel Hydraulics	HWRM-310	Major	3
Drainage Engineering	HWRM-309	Major	3
Tarjuma-e-Quran	HQ-006	Compulsory	1
Elective (I)	HWRM-312	Major	03
			Total Credit Hours 19
Semester 7			
Fieldwork / Intership		Major	3
Elective (II)	HWRM-404	Major	3
Groundwater Modeling	HWRM-403	Major	3
Watershed Modeling	HWRM-402	Major	3
Advanced Fluid Mechanics	HWRM-401	Major	3
Tarjuma-e-Quran	HQ-007	Compulsory	0
			Total Credit Hours 15
Semester 8			
Capstone Project		Major	3
Elective (IV)	HWRM-408	Major	3
Elective (III)	HWRM-407	Major	3
Sustainable Water Resources Development	HWRM-406	Major	3
Reservoir Operation and Design	HWRM-405	Major	3
Tarjuma-e-Quran	HQ-008	Compulsory	1
			Total Credit Hours 16

Signature