

3-year M.Tech course curriculum
Hydraulic and Water Resources Engineering, Department of Civil Engineering

Course Curriculum
Semester 1

Sr. No	Course Name	Code	Credit	Course type
1	Open-Channel Hydraulics and Sediment Transport	CE 6510	3	Department core
2	Groundwater Modelling	CE 6530	3	Department core
3	Hydraulic and Hydrologic Simulation Lab	CE 6511	2	Department lab
Total credits			8	

Semester 2

Sr. No	Course Name	Code	Credit	Course type
1	Engineering Hydrology and Hydrologic Systems	CE 6500	3	Department core
2	Elective – I	XXXX	3	Department elective
3	Applied Computational Laboratory	CE 6501	2	Department lab
Total credits			8	

Semester 3

Sr. No	Course Name	Code	Credit	Course type
1	Irrigation Water Management	CE 6520	2	Department core
2	Elective – 2	XXXX	3	Department elective
3	Industrial Seminar	CE5106	1	Life skills
4	Master's Thesis	CE6135	5	Thesis
Total credits			11	

Semester 4

Sr. No	Course Name	Code	Credit	Course type
1	Elective – 3	XXXX	3	Department core
2	English Communication	LA5180	1	Soft skills
3	Master's Thesis	CE6145	5	Thesis
Total credits			9	

Semester 5

Sr. No	Course Name	Code	Credit	Course type
1	Master's Thesis	CE6145	7	Thesis

Semester 6

Sr. No	Course Name	Code	Credit	Course type
1	Master's Thesis	CE6145	7	Thesis

All electives

Course Name	Code	Credit
Computational Fluid Dynamics	ME 5330	3
Contaminant Hydrology and Remediation	CE 6540	3
Remote Sensing & GIS Applications in Water Resources	CE 6610	3
Water Resources Systems Planning and Management	CE 6620	3
Water Quality Modelling	CE 6630	3
Multiphase Flow in Porous Media	CE 6640	3
Hydraulic Transients	CE 6650	3
Hydro-climatology	CE 6660	3
Advanced Statistical Methods in Hydrology	CE 6670	3
Fluvial Hydraulics	CE 6680	3
Integrated River Basin Management	CE 6690	3
Design of Water Distribution and Sewerage Systems	CE 6700	3