

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

**Course Curriculum**

**Semester 1**

<b>Sr. No.</b>	<b>Course Name</b>	<b>Code</b>	<b>Credit</b>	<b>Course type</b>
1	Engineering Hydrology and Hydrologic Systems	CE 6500	3	Department core
2	Irrigation Water Management	CE 6520	2	Department core
3	Elective – 1	XXXX	3	Department elective
4	Elective – 2	XXXX	3	Department elective
5	Applied Computational Laboratory	CE 6501	2	Department lab
<b>Total credits</b>			<b>13</b>	

**Semester 2**

<b>Sr. No.</b>	<b>Course Name</b>	<b>Code</b>	<b>Credit</b>	<b>Course type</b>
1	Open-Channel Hydraulics and Sediment Transport	CE 6510	3	Department core
2	Groundwater Modelling	CE 6530	3	Department core
3	Elective – 3	XXXX	3	Department elective
4	Hydraulic and Hydrologic Simulation Lab	CE 6511	2	Department lab
5	English Communication	LA5180	1	Soft skills
6	Industrial Seminar	CE5106	1	Life skills
<b>Total credits</b>			<b>13</b>	

**Semester 3**

<b>Sr. No.</b>	<b>Course Name</b>	<b>Code</b>	<b>Credit</b>	<b>Course type</b>
1	Master's Thesis	CE60015	12	Thesis

**Semester 4**

<b>Sr. No.</b>	<b>Course Name</b>	<b>Code</b>	<b>Credit</b>	<b>Course type</b>
1	Master's Thesis	CE60015	12	Thesis

**All electives**

<b>Course Name</b>	<b>Code</b>	<b>Credit</b>
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