



# SGT University Gurgaon

Credit Based Scheme w.e.f. 2020-2021

**Curriculum  
(Scheme of Examination)  
&  
Syllabus for  
M. Tech  
Water Resource Engineering  
Batch 2020 onwards**

**Scheme of Examination for M.Tech–Water Resource Engineering Program**

**SEMESTER WISE COURSE STRUCTURE**

**First Semester**

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Ext.	Int.	
1	13160114	Advanced Fluid Mechanics	3	0	0	3	60	40	100
2	13160115	Surface Water Hydrology and Hydrologic Systems	3	0	0	3	60	40	100
3	13160116	Flow and Transport in Porous Media	3	0	0	3	60	40	100
4	13160103	Research Methodology and IPR	3	0	0	3	60	40	100
5	13160117	Flow and Transport in Porous Media Laboratory	0	0	2	1	40	60	100
6	13160105	Research Methodology and IPR Lab	0	0	2	1	40	60	100
7	13160106	Seminar	0	0	2	1	0	100	100
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>6</b>	<b>15</b>	<b>320</b>	<b>380</b>	<b>700</b>

**Second Semester**

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Ext.	Int.	
1	13160217	Water Resources systems analysis and design	3	0	0	3	60	40	100
2	13160218	Remote sensing applications in water resources engineering	3	0	0	3	60	40	100
3	13160219	Computational Hydraulics and Hydrology	3	0	0	3	60	40	100
4		Elective I	3	0	0	3	60	40	100
5	13160220	Computational Hydraulics and Hydrology Laboratory	0	0	2	1	40	60	100
6	13160221	Water Resources Systems Design Lab	0	0	2	1	40	60	100
7	13160206	Seminar	0	0	2	1	0	100	100
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>6</b>	<b>15</b>	<b>320</b>	<b>380</b>	<b>700</b>



## Scheme of Examination for M.Tech– Water Resource Engineering Program

### SEMESTER WISE COURSE STRUCTURE

#### Third Semester

S.NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Ext.	Int.	
1	13160313	Water Quality Modelling and Management	3	0	0	3	60	40	100
2	13160314	Geographical Information Systems and its Applications in Hydrology	3	0	0	3	60	40	100
3		Elective – II	3	0	0	3	60	40	100
4		Elective – III	3	0	0	3	60	40	100
5	13160315	QGIS and SAGA GIS Laboratory	0	0	4	2	40	60	100
6	13160305	Identification of Research Problem	0	0	2	-	-	-	
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>6</b>	<b>14</b>	<b>280</b>	<b>220</b>	<b>500</b>

#### Fourth Semester

S.NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Ext.	Int.	
1	13160401	Dissertation	0	0	36	18	100	-	100
		<b>Total</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>18</b>	<b>100</b>	<b>-</b>	<b>100</b>

**List of Program Electives**

S. NO.	Subject Code	Course Title	L	T	P	C	Examination marks		Subject Total
							Int.	Ext.	
<b>Elective-I</b>									
1	13160243	Statistical Methods in Hydrology	3	0	0	3	40	60	100
2	13160244	Hydraulic Modelling	3	0	0	3	40	60	100
3	13160245	Finite Element Method in Hydro Engineering	3	0	0	3	40	60	100
4	13160246	Applied Hydraulic Modelling	3	0	0	3	40	60	100
<b>Elective-II</b>									
1	13160247	Hydrogeology and Groundwater Development	3	0	0	3	40	60	100
2	13160248	Environmental Impact Assessment of Water	3	0	0	3	40	60	100
3	13160249	IT Applications in Water Resources Engineering And Management	3	0	0	3	40	60	100
<b>Elective-III</b>									
1	13160337	Hydropower	3	0	0	3	40	60	100
2	13160338	Watershed Management	3	0	0	3	40	60	100
3	13160339	Environmental Hydraulics	3	0	0	3	40	60	100
4	13160340	Urban Hydrology and Drainage	3	0	0	3	40	60	100