BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI
NEWCOURSE STRUCTURE - *To be effective from academic session 2018- 19*
Based on CBCS & OBE model
Recommended scheme of study for all M. Sc. Programmes

M. SC. GEOINFORMATICS

Semester / Session of Study (Recomended)	Course Level	Category of course	Course Code	Courses	Mode of delivery & credits *L-Lecture; T-Tutorial;P-Practicals*			Total Credits *C- Credits*
					L *(Periods/ week)*	T *(Periods/ week)*	P *(Periods/ week)*	C
FIRST / Monsoon				**THEORY**				
	FIFTH	Programme Core (PC)	GI 501	Principles of Remote Sensing	3	0	0	3
			GI 502	Geographic Information System	3	0	0	3
			GI 503	Digital Cartography and GPS	3	0	0	3
			GI 504	Advanced Image Acquisition and Interpretation for Environmental Mapping	3	1	0	4
		Open Elective (OE)		Open Elective (OE) 1	3	0	0	3
				LABORATORIES				
	FIFTH	Programme Core (PC)	GI 505	Remote Sensing Laboratory	0	0	4	2
			GI 506	Geographic Information System Laboratory	0	0	4	2
			GI 507	Digital Cartography and GPS Laboratory	0	0	4	2
			GI 508	Image Acquisition and Image Interpretation Laboratory	0	0	4	2
				TOTAL				**24**
SECOND/ Spring				**THEORY**				
	FIFTH	Programme Core (PC)	GI 509	Digital Satellite Image Processing	3	1	0	4
			GI 510	Research Methods and Statistics in Geoinformatics	3	1	0	4
		Programme Elective (PE)	GI * ##	Programme Elective - I	3	1	0	4
		Open Elective (OE)		Open Elective (OE) 2	3	0	0	3
				LABORATORIES				
	FIFTH	Programme Core (PC)	GI 511	Digital Satellite Image Processing Laboratory	0	0	4	2
			GI 512	Programming and Customisation in Geospatial domain Laboratory	0	0	4	2
			GI 513	Field Study Laboratory	0	0	4	2
		Programme Elective (PE)	GI * ##	Programme Elective ó I Laboratory	0	0	4	2
				TOTAL				**23**
				TOTAL FOR FIFTH LEVEL				**47**

				THEORY				
THIRD / Monsoon	**SIXTH**	Programme Core (PC)	GI 601	Dissertation (Part - I)				4
			GI 602	Advanced Geospatial Modelling and Decision Support System	3	1	0	4
			GI 603	Aerial, Satellite, UAV based Photogrammetry & Application	3	1	0	4
		Programme Elective (PE)	GI * $$	Programme Elective - II	3	1	0	4
		Open Elective (OE)		Open Elective (OE) 3	3	0	0	3
				LABORATORIES				
	SIXTH	Programme Core (PC)	GI 604	Advanced Geospatial Modelling & DSS Laboratory	0	0	4	2
			GI 605	Aerial, Satellite, UAV based Photogrammetry & Application Laboratory	0	0	4	2
		Programme Elective (PE)	GI * $$	Programme Elective ó II Laboratory	0	0	4	2
				TOTAL				**25**
FOURTH/ Spring	**SIXTH**	Programme Core (PC)	GI 611	Dissertation (Part ó II)				8
				TOTAL				**8**
				TOTAL FOR SIXTH LEVEL				**33**
				GRAND TOTAL FOR M.TECH PROGRAMME (47 + 33)				**80**

Elective 1 (Candidate need to take One theory +associated laboratory from Group 1)
GROUP 1

GI 514	Geoinformatics for Climate Change and Environmental Impact Assessment
GI 515	Geoinformatics for Hydrology & Water Resources
GI 516	Geoinformatics for Climate Change and Environmental Impact Assessment Laboratory
GI 517	Geoinformatics for Hydrology & Water Resources Laboratory

$$ Elective 2 (Candidate need to take One theory +associated laboratory from Group 2)
GROUP 2

GI 606	Geoinformatics for Natural Resource Management
GI 607	Geoinformatics for Disaster Management
GI 608	Geoinformatics for Natural Resource Management Laboratory
GI 609	Geoinformatics for Disaster Management Laboratory

Open Elective refers to subjects hosted by other Departments, and student need to take a subject (having appropriate credit) of their own choice.

DEPARTMENT OF REMOTE SENSING							
PE / LEVEL	Code no.	Name of the PE courses	Prerequisites courses with code	L	T	P	C
Programme Elective -I							
PE/5 (MO)	GI 514	Geoinformatics for Climate Change and Environmental Impact Assessment	GI 501 & GI 502	3	0	0	3
PE/5 (MO)	GI 515	Geoinformatics for Hydrology & Water Resources		3	0	0	3
PE/5 (MO)	GI 516	Geoinformatics for Climate Change and Environmental Impact Assessment Laboratory	GI 505 & GI 506.	0	0	4	2
PE/5 (MO)	GI 517	Geoinformatics for Hydrology & Water Resources Laboratory		0	0	4	2
Programme Elective - II							
PE/5 (SP)	GI 606	Geoinformatics for Natural Resource Management	GI 501 & GI 502	3	0	0	3
PE/5 (SP)	GI 607	Geoinformatics for Disaster Management		3	0	0	3
PE/5 (SP)	GI 608	Geoinformatics for Natural Resource Management La	GI 505 & GI 506	0	0	4	2
PE/5 (SP)	GI 609	Geoinformatics for Disaster Management Laboratory		0	0	4	2

** PROGRAMME ELECTIVES TO BE OPTED ONLY BY THE DEPARTMENT STUDENTS

OE / LEVEL	Code no.	Name of the PE courses	Prerequisites courses with code	L	T	P	C
DEPARTMENT OF REMOTE SENSING OPEN ELECTIVES (OE)* OFFERED FOR LEVEL 5-6 of M.Sc. in Geoinformatics							
OE/5 (MO)							
OE/5 (MO)							
OE/5 (SP)							
OE/5 (SP)							
* OPEN ELECTIVES TO BE OPTED ONLY BY OTHER DEPARTMENT STUDENTS							

Note: No Open elective is being offered in MO-2018 & SP-2018