

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB**Syllabus of M. Tech. in Geoinformatics
(Effective for 2019-2020 Admission session)****Course Content (Duration 1 year)****First Year**

First Semester	
Theory	Lab
1. Principles of Remote Sensing and Photogrammetry	6. Remote Sensing and Photogrammetry Lab
2. Principles of Geographic Information Systems (GIS)	7. GIS Lab
3. Basics of GNSS, Cartography & Digital Mapping	8. GNSS and Cartography Lab Lab
4. Introduction to WebGIS, Machine Learning, Recent Trends in Geoinformatics (Big Data, Data Mining etc.)	9. Programming Lab I (Python)
5. Mathematical Methods and Scientific Computing for Geospatial Data Analysis	10. Programming Lab II (Javascript and Geospatial Computing using Python)
Second Semester at Bikash Bhavan, Salt Lake, Kolkata	
Theory	Lab
1. Spatial Database, Analysis and Modeling and Satellite Image Processing	3 Database Analysis and SIP Lab
2. Elective I & II (any two of the following) i. Applications of Geoinformatics ii. Disaster Management iii. Geoinformatics in Engineering Projects iv. Geoinformatics in Water Resources Management	4. i. Application of Geoinformatics Lab ii. Disaster Management Lab iii. Geoinformatics in Engineering Projects iv. Geoinformatics in Water Resources Management Lab
5. Project Work and Grand Viva at Bikash Bhavan, Salt Lake, Kolkata	

Second Year

Third Semester	
Theory	Lab
1. WebGIS, Geospatial Cloud Computing (Client Server Architecture)	5. WebGIS Lab
2. Machine Learning in Geoinformatics	6. Machine Learning in Geoinformatics Lab
3. Elective III (any one) i. Recent Trends in Geoinformatics (Big Data, Data Mining etc.) ii. Spatial Data Warehousing and Mining and Spatial Decision Support System	7. i. Recent Trends in Geoinformatics Lab ii. Spatial Data Warehousing and Mining and Spatial Decision Support System Lab
4. Case Study based Mini Project . M. Tech. Dissertation I	
Fourth Semester (6 Months)	
1. M. Tech. Dissertation II 2. Grand Viva	