

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: III

Civil Engineering (Water Resources Management)

Subject Name: **Flood Management**

Sr.No	Course content
1	Criteria for sustainable water management, integrated catchment management.
2	Flows in catchments, water resources and floods.
3	Flood management as changing risks, frequency approaches vs. time series, risk vs. uncertainty, flood and ecosystem.
4	Vulnerability to floods, impact of floods, assessing the risk.
5	Principles of flood management, strategies of intervention, comparing the options, stakeholder's involvement and project appraisal, structural and non-structural measures.

List of Tutorial:

1. Study of catchments area features planning
2. Estimation of flood
3. Flood warning system
4. Flood routing and flood management
5. Flood impact assessment

Reference Books:

1. Ashley R., Garvin S., Pasche E. and Vassilopoulos A., Advances in Urban Flood Management, Balkema, 2007
2. Saul A, Floods and Flood Management, Springer, 1992.
3. Schanze J., Zeman E., and Marsalek J., Flood Risk Management, NATO Science Series IV: Earth and Environmental Science, 2006.