

# GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: 2

## Master of Environmental Engineering

Subject Name **Major Elective 3.3CAD FOR ENVIRONMENTAL ENGINEERING**

Sr.No	Course content
1	<b>Introduction of Computer Systems:</b> Hardware, Software, Computer input output devices etc.
2	<b>System Analysis :</b> Algorithm or flow chart preparation, philosophy and policy, Introduction to computer languages for handling data, Fortran, Database, Basic, C, Pascal, their comparison.
3	<b>Computer Languages :</b> Languages for preparation of computer aided drawing and designs, autocad and other softwares
4	<b>Preparation of Design for Water Supply Systems :</b> Pipe designs for water tree or dead end system, Pipe network analysis, for water supply and sewerage collection system. Computer aided design of unit of treatment for water supply : - intake, jackwell, clariflocculater computer aided design of wastewater treatment units – screens and grit chambers, clarifier secondary treatment units.

### List of Experiments: EXERCISES

1. Lab oratory of CAD and introduction to computer processing
2. Experimental work in laboratory on Auto cad
3. Experimental work in laboratory on Auto cad
4. Experimental work in laboratory on Auto cad
5. Exercise on solution of Design of water treatment system
6. Exercise on solution of Design of water treatment system
7. Exercise on solution of Design of waste water treatment system
8. Exercise on solution of Design of waste water treatment system
9. Preparation on Project on CAD application

### Reference Books:

(i)Computer programming in Fortran & Other Languages by Rao P.V.S.Tata McGraw  
(ii)Computer Programming by Dr. A.K. Jain - Roorkee Prakashan, Roorkee. (iii)CAD / CAM Handbook by Teicholz E McGraw Hill. (iv)Computer Application in Civil Engineering by Spindel P.B.van Nastrand Co.(V)**Manual of Water Supply – 1991 Edition and Manual of Waste Water Treatment (Latest Edition to be used)** by Ministry of Urban Development.(vi)CAD / CAM Technique by Hordeski M.F. - Virginia Restore Pub.