GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Sem. IV (Geotechnical Engineering) (W.E.F. January, 2013)

Subject Code & Name: 744301-Off-Shore Structures

SR. NO.	COURSE CONTENT
1	**Wave Mechanics:** Wave generation process, small and finite amplitude wave theories.
2	**Wind forces:** Wave forces on vertical, inclined cylinders, structures – current forces and use of Morison equation.
3	**Off-Shore Structures:** Different types of offshore structures, foundation modeling, structural modeling, Static method of analysis, Foundation analysis, Dynamics analysis of offshore structures, Design of platforms, Jacket tower and mooring cables and pipe lines.

Reference Books:

1. Hydrodynamics of Offshore Structures - Chakrabarti, S.K. Computational Mechanics Publications, 1987.

2. Offshore Structural Engineering - Thomas H. Dawson, Prentice Hall Inc Englewood Cliffs, N.J. 1983

3. Recommended Practice for Planning, Designing - API, American Petroleum Institute and Constructing Fixed Offshore Platforms Dalls, Tex. Publication, RP2A,

4. Oceanographical Engineering - Wiegel, R.L., Prentice Hall Inc, Englewood Cliffs, N.J. 1964.

5. Dynamic Analysis of Offshore Structures, - Brebia, C.A.Walker, S., New-nes Butterworths, U.K. 1979.

6. Offshore Structures, Vol.1, - Reddy, D.V. and Arockiasamy, M.,Krieger Publishing Company, Malabar, Florida, 1991.