Year & Sem:	Course Code: ME4507	Course Name: **Rotor Dynamics**	No. of Credits: 4	L	T&PS	P
				2	2	0

Single Mass Rotors, Gyroscopic Effects in Rotors, Torsional Vibrations, Transverse Vibrations, Bearings, Balancing of Rotors, Bearing Dynamic Coefficient Measurement, Instability in Rotors ,Instability in Rotors, Sub-Critical Phenomenon in Rotors, FEM Analysis of Rotors, Measurement & Signal Processing Techniques, Condition Monitoring of Rotors.

References/Text Books:

1. Admas M. L. Jr, 2001, Rotating Machinery Vibration: From Analysis To Troubleshooting, Marcel Dekker, Inc., New York.
2. Biezeno, C. and Grammel, R, 1959, Engineering Dynamics, Vol III. of Steam Turbines, D. Van Nostrand Co., Inc., New York.
3. Chen, W. J., Gunter, E. J. (2005). Introduction to Dynamics of Rotor-Bearing Systems. ISBN 1-4120-5190-8
4. Childs D., 1993, Turbomachinery Rotordynamics: Phenomena, Modeling and Analysis. Research Studies Pub., A Wiley-Interscience Publication, NY.

Lecture Plan: Unit-I & -II syllabus for MID-I, Unit-III & -IV syllabus for MID-II and Unit-V & -VI syllabus for MID-III examinations.

Video Lectures (Web Links):

1.
2.

Study Materials (Web Links):

1.
2.

Problems & Solutions (Web Links):

1.
2.

Assignments (Web Links):

1.
2.