No.	Information on Every Subject	
1.	Unit Name:	Corrosion Engineering I
2.	Unit Code:	Met-51061
3.	Classification:	Engineering Subject
4.	Credit Value:	2.5
5.	Semester/Year Offered:	1/2
6.	Pre – requisite:	
7.	Mode of Delivery:	Lecture, Tutorial, Practical
8.	Assessment System and Breakdown of Marks:	
	Test, Assignment	15%,15%
	Mid – term/Final Examination	70%
9.	Academic Staff Teaching Unit:	Professor
10.	Course outcome of unit: • The cost and the corrosion resistance of the material usually are the most important properties in most engineering application, requiring high chemical resistance. • Understanding and controlling of corrosion will be utilized • Determine (uniform corrosion, galvanic corrosion, crevice corrosion, pitting, intergranular corrosion and selective leaching) their characteristics, mechanisms, and preventive measure.	
11.	Synopsis of unit: Theoretical discussion on corrosion and oxidation of metal and alloys under varying environmental condition, principles of corrosion testing, inhibition, passivation and use of anodic protection.	
12.	Topic Chapter 1.Course Introduction -Corrosion Engineering -Environments -Corrosion Damage -Classification of Corrosion. 2. Corrosion Principles -Corrosion Rate Expressions -Electrochemical Aspects -Environmental Effects -Metallurgical and other aspects 3. Eight forms of Corrosion -Uniform attack -Galvanic or two metal corrosion -pitting -Intergranular corrosion	

	-Selective Leaching
13.	Main references: Corrosion Engineering. Mar G Fontana, Third Edition.
14.	Additional reference: The Science and Engineering of Materials, Six Edition, Donald R. Askeland

List of Practical

Lab	Activity	Contact Hours
1	Topic: Uniform corrosion (with video)	
2	Topic: Crevice corrosion (with video)	
3	Topic: Galvanic cell (with video)	