

MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY
TENTATIVE TEACHING PLAN

FRM-001/00/QSP-004

Dec, 01, 2001

DEPARTMENT OF TELECOMMUNICATION ENGINEERING

Name of teacher: **Shafi M. Jiskani**

Subject: **Circuit Analysis**

Batch: **16 TL**

Semester: **2nd**

Year: **1st**

Semester starting date: **11-07-2016**

Semester suspension date: **01-10-2016**

S #	Course Contents of the Subject	Lecture Hrs Req.
01	Atomic Theory Review, Electrical terms(circuit variable)	01
02	Linear and Nonlinear circuits, Active and Passive circuits	01
	Kirchoff's Law and Resistive circuits	
04	laws of electric circuits (Kirchhoff's Voltage and Current Laws)	02
05	Series and parallel circuits (Voltage-Divider Rule, Current-Divider Rule)	02
06	Loop analysis, Mesh analysis Methods	01
07	Nodal analysis, Branch analysis Methods	01
	Network Theorems(dc source)	
08	Superposition theorem	02
09	Thevenin's theorem , Norton's theorem	02
10	Star/Delta Transformation	02
	Alternating Current Fundamentals	
11	AC Wave-form, Period and Frequency, Radians and Angular Frequency	01
12	Peak and Instantaneous values, Average and Effective values,	01
13	AC voltage and current in Capacitors and Inductors, Average Power	02
14	Instantaneous Power & Average Power, Apparent Power & Complex Power, Power Triangle	02
15	Leading and lagging power Factor	01
	The RLC Circuit	
16	Impedance and admittance, Phasors	02
17	Series and parallel (RC, RL,LC, RLC) circuits	03
18	Maximum power condition, maximum power transfer circuits	01
19	Transient Analysis of First Order RC and RL circuits	01
	Network Theorems(ac source)	
20	Superposition theorem	01
21	Thevenin's theorem, Norton's theorem	02
22	Loop and node methods	02
	Elementary Transient Analysis	
23	Differential and integral forms of circuit equations	02
24	Natural and forced responses	01
25	Representation of excitation by exponential functions, single element responses	02
26	Forced response with exponential excitation introduction to transformed network	02
27	Driving point impedance and admittance	02
	Total Lecture hrs	42

Signature of Teacher

Dated:

Remarks of DMRC

Signature of Chairman

Dated: