

# LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
6	10.12.15	Objective of the Subject	UNIT-1	BB		
5	11.12.15	Division of satellite communications	I	V		
1	14.12.15	Historical Background of satellite comm's	I	V		
5	15.12.15	Basic concepts of satellite comm's	I	II		
2	16.12.15	continuation of Basics in satellite comm	I	V		
6	17.12.15	Frequency allocation for satellite services	I	V		
5	18.12.15	Applications of satellite communications	I	V		
1	21.12.15	Future trends in satellite communications	I	V		
5	22.12.15	orbital Mechanics	II	B-B		
2	23.12.15	look angle determination	II	V		
6	24.12.15	Orbital perturbations	II	V		
1	28.12.15	orbit - determination	II	V		
5	29.12.15	Launches and Launch vehicles	II	V		
2	30.12.15	Launch vehicles cont.	II	II		
6	31.12.15	Orbital effects in satellite comm's	II	V		
1	04.01.16	dopplershift, solar eclipse	II	II		
5	05.01.16	Sun transit outage.	II	V		

# LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
2	06-01-16	Attitude and orbit control systems	<u>III</u>	B-B		
6	07-01-16	Telemetry, tracking	<u>III</u>	11		
5	08-01-16	Commanding & Monitoring (CTM)	<u>III</u>	11		
1	11-01-16	power systems	<u>III</u>	11		
5	12-01-16	communication subsystems.	<u>III</u>	V		
1	18-01-16	Satellite Antenna equipment	<u>III</u>	11		
5	19-01-16	Reliability	<u>III</u>	11		
2	20-01-16	space quality - control.	<u>III</u>	11		
6	21-01-16	Basic transmission theory.	<u>IV</u>	B-B		
5	22-01-16	System noise temperature ( $T_s$ )	<u>IV</u>	11		
1	25-01-16	G/T Ratio	<u>IV</u>	11		
2	27-01-16	Design of downlinks	<u>IV</u>	11		
6	28-01-16	Design of up link	<u>IV</u>	11		
5	29-01-16	Design of satellite links for spectral $\rho$	<u>IV</u>	11		
1	01-02-16	System design example	<u>IV</u>	11		
5	02-02-16	downlink design Examples	<u>IV</u>	11		
2	03-02-16	System - Design example.	<u>IV</u>	11		



## LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
6	04.02.16	F D M A	<u>V</u>	B-B		
5	05.02.16	Inter modulation calculation of $\gamma$	<u>V</u>	"		
1	08.2.16	CDMA	<u>V</u>	"		
2	10.02.16	TDMA & TDMA frame study	<u>V</u>	"		
6	11.02.16	Satellite Switched TDMA	<u>V</u>	"		
5	12.02.16	on-board processor - DAMA	<u>V</u>	"		
1	15.02.16	Spread spectrum	<u>V</u>	"		
5	16.02.16	transmission & Reception.	<u>V</u>	"		
2	17.02.16	Introduction to Earth station tech.	<u>VI</u>	B-B		
6	18.02.16	Transmitters of Earth station	<u>VI</u>	"		
5	19.02.16	Receivers of Earth station	<u>VI</u>	"		
1	22.02.16	Earth station Antennas	<u>VI</u>	"		
5	23.02.16	Earth station tracking systems	<u>VI</u>	"		
2	24.02.16	Earth station terrestrial interface	<u>VI</u>	"		
6	25.02.16	continuation of terrestrial interface	<u>VI</u>	"		
5	26.02.18	primary power test methods	<u>VI</u>	"		
1	29.02.18	power test methods continuation -	<u>VI</u>	"		

## LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Act Upon Review
5	01-03-16	LEO & GEO Satellite Systems	<u>VII</u>	B-B		
2	02-03-16	orbit consideration	<u>VII</u>	"		
6	03-03-16	Coverage and frequency consideration	<u>VII</u>	"		
5	04-03-16	Delay and through put consideration	<u>VII</u>	"		
5	08-03-16	construction	<u>VII</u>	"		
2	09-03-16	System consider- ations.	<u>VII</u>	"		
6	10-03-16	operational NGSO constellations	<u>VII</u>	"		
5	11-03-16	designs - conti- -nation -	<u>VII</u>	"		
1	14-03-16	Radio and Satellite navigation	<u>VIII</u>	B-B		
5	15-03-16	GPS - position - location principles	<u>VIII</u>	"		
2	16-03-16	GPS Receivers and codes	<u>VIII</u>	"		
6	17-03-16	C/A code & P-code	<u>VIII</u>	"		
5	18-03-16	Satellite signal acquisition.	<u>VIII</u>	"		
1	21-03-16	GPS navigation message.	<u>VIII</u>	"		
2	23-03-16	GPS - signal levels & GPS-RX operation	<u>VIII</u>	"		
6	24-03-16	GPS C/A code accuracy,	<u>VIII</u>	"		
1	28-03-16	Differential GPS	<u>VIII</u>	"		Gulm