Lesson Plan

Name of the Faculty: Ms. Tusharika

Discipline: Aeronautical Engineering

Semester: 7th

Subject: Aircraft Maintenance of Airframe and Systems

Work Load (Lecture/Practical) per week (in hours): Lectures- 4 , Practical- 3

Week	Theory		Practical	
	Lecture day	Topic (including assignment/test)	Practical day	Topic
1st	1st	Introduction	1st	Study of standard operating procedures of safely in aircraft maintenance.
	2nd	Airframe Structure		
	3rd	Various types of structures in airframe construction, tubular		
	4th	Various types of structures in airframe construction, tubular		
2nd	5th	Fuselage Structures	2nd	Ground running precautions and carry out checks on gas turbine and air intakes prior and after the ground run with the fibroscope
	6th	Fuselage Structures		
	7th	braced monocoque, semimonocoque		
	8th	braced monocoque, semimonocoque		
3rd	9th	longerons	3rd	Carry out Engine oil system replenishment.
	10th	longerons		
	11th	stringers, formers		
	12th	stringers, formers		
4th	13th	bulkhead	4th	Carry out Hydraulic oil system replenishment / checks by CM-20 and patch kit for contamination.
	14th	bulkhead		
	15th	spars and ribs		
	16th	Assignment 1		
5th	17th	Honeycomb construction	5th	Air / oxygen charging procedure and precautions during charging.
	18th	Honeycomb construction		
	19th	Airplane controls, ailerons, elevators, rudder		
	20th	Airplane controls, ailerons, elevators, rudder		
6th	21st	trimming and control tabs	6th	Study of Mooring, Lashing and picketing procedures.
	22nd	leading and trailing edge		

		flaps		
	23rd	Tail plane and fins		
	24th	Basics of structure		
7th	25th	structural components fabricated from metal, glass fibre, vinyl	7th	Crack detection with NDT checks – Magnetic, eddy current and vibro acoustic techniques.
	26th	Perspex, composites		
	27th	Finishing materials, paints		
	28th	surface finishes and associated materials		
8th	29th	Assignment 2	8th	Inhibition / deinhibition of Aero engines.
	30th	Aircraft systems		
	31st	Flying controls including power operated controls		
	32nd	hydraulic, pneumatic		
9th	33rd	landing gear various types, shock struts	9th	Assembly/Deassembly of Piston Engine.
	34th	nose wheel steering, ice and rain protection		
	35th	fire detection warning and extinguishing, oxygen		
	36th	air -conditioning and pressurisation systems		
10th	37th	wheels, tyres, brakes, antiskid system	10th	To measure the RPM of Piston Engine using Anemometer.
	38th	Windows, doors and emergency exists		
	39th	Reliability and redundancy of systems design.		
	40th	Assignment 3		
11th	41st	Inspection: Basic principles of inspection	11th	
	42nd	inspection gauges, and tools		
	43rd	Standard Inspection techniques and procedures. Go/No go gauges		
	44th	gauge calibration and maintenance, limits and tolerance		
12th	45th	NDT techniques in	12th	

		Airframe maintenance		
	46th	Major and minor damage, damage tolerance		
	47th	Corrosion and corrosion prevention		
	48th	Major and minor defects		
13th	49th	Defect reporting, rectification and investigation	13th	
	50th	Rigging of aircraft, symmetry checks		
	51st	Balancing of control surfaces		
	52nd	Periodical inspections		
14th	53rd	heavy landing, overweight landing checks	14th	
	54th	abnormal flight loads		
	55th	Aircraft weighing, weight schedule		
	56th	calculation of centre of gravity		
15th	57th	Assignment 4	15th	
	58th	Revision Class		
	59th	Revision Class		
	60th	Revision Class		