Mata Kuliah : Aircraft System I (Hydraulic and Pnuematic)

Bobot : 2 SKS (1 Teori dan 1 Praktek)

Standar Kompetensi : Peserta diklat mampu memahami dan menjelaskan Aircraft System I (Hydraulic and Pnuematic)

No.	Kompetensi Dasar	Pokok Bahasan	Sub Pokok Bahasan	Sumber Belajar
Teori				
1.	Mampu memahami dan menjelaskan Fundamental of Aircraft Hydraulic	Fundamental of Aircraft Hydraulic	a. Fluid Power b. Aircraft Hydraulic c. Characteristic of Liquid	
2.	Mampu memahami dan menjelaskan Principle of Fluid Power	Principle of Fluid Power	a. Definition and Formula Physical Relationship • Area • Force • Pressure • Distance • Work • Power • Volume	

No.	Kompetensi Dasar	Pokok Bahasan	Sub Pokok Bahasan	Sumber Belajar
			b. Basic Laws of Fluid Power • The Law of Conservation of Energy • Static Law • Dynamic Law	
3.	Mampu memahami dan menjelaskan Hydraulic Fluid	Hydraulic Fluid	a. Hydraulic Fluid Requirement ▪ Viscosity ▪ Chemical Stability ▪ Flash Point ▪ Fire Point ▪ As Incompressible as Practical ▪ Minimum Friction ▪ Good Lubricating Properties ▪ No Foam In Process ▪ Compatible With Material of Component b. Type and Characteristic Hydraulic Fluid • Vegetable Base Hydraulic Fluid • Mineral Base Hydraulic Fluid • Phosphate Ester Base Fluids	

No.	Kompetensi Dasar	Pokok Bahasan	Sub Pokok Bahasan	Sumber Belajar
4.	Mampu memahami dan menjelaskan Hydraulic Component	Hydraulic Component	a. Reservoir • Unpressurized Reservoir • Pressurized Reservoir b. Hand Pump • Single action hand pump • Double action hand pump c. Powered pump • Constant delivery pump • Variable delivery pump d. Valve • Flow control valve • Pressure control valve e. Accumulator • Diaphragm-Type Accumulator • Bladder-Type Accumulator • Piston Type Accumulator f. Filter	

No.	Kompetensi Dasar	Pokok Bahasan	Sub Pokok Bahasan	Sumber Belajar
			g. Actuator • Linear Actuator • Rotary Actuator h. Fluid Lines • Rigid Lines • Flexible Lines i. Seals • One way seals • Two way seals • Backup Ring • Wiper	
5.	Mampu memahami dan menjelaskan Simple Hydraulic System	Simple Hydraulic System	a. Sealed Brake b. Vented Brake c. Operation power pump system ▪ Manual pump control valve ▪ Automatic unloading valve ▪ Open center system	

No.	Kompetensi Dasar	Pokok Bahasan	Sub Pokok Bahasan	Sumber Belajar
6.	Mampu memahami dan menjelaskan Pneumatic System	Pneumatic System	a. High pressure system b. Medium pressure system c. Low pressure system	