



Skedsmo videregående skole

NO.147.0002

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Årsplan for faget: Modul 11 FASS		Ref: Grunnleggende mål i læreplan for programfagene
	 Godkjent avdelingsleder

Læremidler som skal benyttes, Revisjons dato LTT filer: LTT rev. 2014-mai

- LTT M11 B1 eJAMF M11.01.pdf, LTT M11 B1 eJAMF M11.02.pdf, LTT M11 B1 eJAMF M11.02supplement.pdf(15.12.2011), LTT M11 B1 eJAMF M11.03.pdf, LTT M11 B1 eJAMF M11.03supplement.pdf(15.12.2011), LTT M11 B1 eJAMF M11.04.pdf, LTT M11 B1 eJAMF M11.05.01.pdf, LTT M11 B1 eJAMF M11.05.02.pdf, LTT M11 B1 eJAMF M11.06.pdf, LTT M11 B1 eJAMF M11.07.pdf, LTT M11 B1 eJAMF M11.09.pdf, LTT M11 B1 eJAMF M11.11.pdf, LTT M11 B1 eJAMF M11.13.pdf, LTT M11 B1 eJAMF M11.16.pdf, LTT M11 B1 eJAMF M11.17.pdf, LTT M11 B1 eJAMF M11.18.pdf, LTT M11 B1 eJAMF M11.19.pdf, LTT M11 B1 eJAMF M11.20.pdf, LTT M11 B1 eJAMF M11.21.pdf, LTT M11 B1 eJAMF, M12.06.pdf, LTT M11 B1 eJAMF, M12.08.pdf
- Div utdrag fra EASA CS 25 og SRM
- EASA part-CAT
- Internett
- MM til skolens fly
- Grunnleggende PP-bilag
- Bilag: Temperaturmåling i luftfartøy

PART 66 referanse	Tema	Bok referanse	Ansvarlig lærer	Sign lærer Utført/dato
11.1.2 Level 2	High Speed Flight Speed of sound, subsonic flight, transonic flight, supersonic flight, Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule; Factors affecting airflow in engine intakes of high speed aircraft; Effects of sweepback on critical Mach number.	LTT M11.01 s 80-179		
11.2	Airframe Structures- General Concepts	Lufthansa Training Pack P66-b1-m11.02 supplement.pdf(15.12.2011).		



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11.2a	<p>Airworthiness requirements for struktural strength</p> <p>Structural classification, primary, secondary and tertiary</p> <p>Fail safe, safe life damage tolerance concept</p> <p>Zonal and station identification system</p> <p>Stress, strain, bending, compression, shear, torsin, tension, hoop stress, fatigue</p> <p>Drains and ventilation provisions</p> <p>System installation provisions</p> <p>Lightning strike provision</p> <p>Aircraft bonding</p>	Lufthansa Training Pack P66-b1-m11.02 supplement.pdf(15.12.2011) s. 1 - 25		
11.2b	<p>Construction methods of; Stressed skin, fuselage formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcements methods of skinning, anti-corrosive protection, wing, empennage and engine attachments.</p> <p>Structure assembly techniques; Riveting, bolting, bonding</p> <p>Methodes of surface protection, such as chromating, anodizing, painting</p> <p>Surface cleaning</p> <p>Airframe symmetri; methods of alignment and symmetry checks</p>	Lufthansa Training Pack P66-b1-m11.02 supplement.pdf(15.12.2011) s. 26 - 55		
11.3	Airframe Structures Aeroplanes	Lufthansa Training Pack P66-b1-m11.03e supplement.pdf(15.12.2011)		



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11.3.1	<p>Fuselage ATA 52/53/56</p> <p>Construction and Pressurization Sealing</p> <p>Wing stabilizer, pylon and undercarriage attachments</p> <p>Seat installation and cargo loading system</p> <p>Doors and emergency exits; Construction, mechanisms, operation and safety mechanisms</p> <p>Windows and windscreen construction and mechanisms.</p>	Lufthansa Training Pack P66-b1-m11.03e supplement.pdf(15.12.2011) s. 1 - 53		
11.3.2	<p>Wings (ATA57)</p> <p>Construction;</p> <p>Fuel Storage</p> <p>Landing gear, pylon, control surface and high lift/drag attachments</p>	Lufthansa Training Pack P66-b1-m11.03e. supplement.pdf(15.12.2011) s. 54 – 83		
11.3.3	<p>Stabilizer(ATA55)</p> <p>Construction</p> <p>Control surface attachment</p>	Lufthansa Training Pack P66-b1-m11.03e. supplement.pdf(15.12.2011) s.84 – 89		
11.3.4	<p>Flight Control Surfaces (ATA55/57)</p> <p>Construction and attachment</p> <p>Balancing-mass and aerodynamic</p>	Lufthansa Training Pack P66-b1-m11.03e. supplement.pdf(15.12.2011) s. 90 – 99		
11.3.5	<p>Nacelles/Pylons (ATA 54)</p> <p>Construction</p> <p>Firewalls</p> <p>Engine mounts</p>	Lufthansa Training Pack P66-b1-m11.03e supplement.pdf(15.12.2011)f s. 100 - 108		



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<p>11.04</p> <p>Level 2</p> <p>Level 3</p> <p>Level 3</p> <p>Level 3</p>	<p>AIR CONDITION AND CABIN PRESS (ATA 21)</p> <p>SOURCES OF AIR SUPPLY INCL. ENGINE BLEED</p> <p>Air condition: INTRODUCTION TEMPERATURE CONTROL OVERVIEW COOLING DESCRIPTION WATER SEPARATION PACK CONTROL AND INDICATION DISTRIBUTION ZONE TEMPERATURE CONTROL VENTILATION EQUIPMENT COOLING SYSTEM</p> <p>PRESSURE CONTROL SYSTEM</p> <p>Vapor cycle machines</p>	<p>LTT 11.04 s 1-15 Grunnleggende PP Bilag</p> <p>LTT 11.04 s 16-219 Grunnleggende PP Bilag</p> <p>LTT 11.04 s 220-277 Grunnleggende PP Bilag</p> <p>LTT 12-06 s 22-29 Grunnleggende PP Bilag</p>		
<p>11.05.01</p> <p>Level 2</p>	<p>Air Data Instruments</p> <p>Pitot – Static System (+Air Data)</p> <p>Gyroscopes (ADI, HSI, Turn & Slip)</p> <p>Heading Reference System (Compass System)</p> <p>Temperature Indications</p> <p>Glass Cockpit (EIS Intro, EFIS & CWS)</p> <p>Warning and Recording Systems (Altitude alert, Overspeed, Stall, FDR)</p> <p>GPWS</p> <p>Fuel -quantity, -level sensing and -temperature</p>	<p>M11.05.01 pdf :8-47</p> <p>M11.05.01 pdf : 48 - 95</p> <p>M12.07 pdf : 132-165 M12.07 pdf: 178-195</p> <p>M12.07 pdf : 204-237</p> <p>M11.05.01 pdf : 46-47 M12.07 pdf: 43 B Temperaturmåling i luftfartøy</p> <p>M11.05.01 pdf : 208-219 M11.05.01 pdf : 278-371</p> <p>M11.05.01 pdf : 96-111</p> <p>M11.05.01 pdf: 372-405</p> <p>M11.05.01 pdf : AF: 406-437</p>		



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<p>11.05.02 Level 1</p>	<p>Communications Introduction</p> <p>Radio Comm (VHF, HF, ACARS, SATCOM, ELT)</p> <p>Audio Systems (Interphone, PA, CVR)</p> <p>Radio Navigation (ADF, VOR, ILS, MB)</p> <p>Radio Altimeter</p> <p>Distance Measuring Equipment DME</p> <p>Weather Radar</p> <p>ATC Transponder</p> <p>TCAS</p> <p>Autoflight (Autopilot, Flight Director)</p> <p>Auto Throttle System</p>	<p>M11.05.02 23 B1 E: 4-32</p> <p>M11.05.02 23 B1 E: 50-87</p> <p>M11.05.02 23 B1 E: 46-49</p> <p>M11.05.02 34 B1 E: 4-71</p> <p>M11.05.02 34 B1 E: 72-79</p> <p>M11.05.02 34 B1 E: 80-89</p> <p>M11.05.02 34 B1 E: 90-105</p> <p>M11.05.02 34 B1 E: 106-113</p> <p>M11.05.02 34 B1 E: 114-131</p> <p>M11.05.02 34 B1 E: 4-109</p> <p>M11.05.02 22 B1 E: 110-129</p>		
<p>11.06 Level 3</p>	<p>Electrical Power (ATA24)</p> <p>Batteries Installation and Operation</p> <p>DC power generation</p> <p>AC power generation</p> <p>Emergency power generation</p> <p>Voltage regulation</p> <p>Power distribution</p> <p>Inverters, transformers, rectifiers</p> <p>Circuit protection</p> <p>External/Ground power</p>	<p>LTT M11.06 pdf: s. 1-271</p> <p>LTT M12.8 s 1-37</p> <p>Bilag fra lærer</p>		



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<p>11.07</p> <p>Level 2</p> <p>Level 1</p>	<p>EQUIPMENT AND FURNISHING (ATA 25)</p> <p>a: Emergency equipment requirements</p> <p>FLOATATION AND SURVIVAL EQUIPMENT</p> <p>EMERGENCY EQUIPMENT</p> <p>Seats, harnesses and belts.</p> <p>b: Cabin layout. Equipment layout. Cabin furnishing installation. Cabin entertainment equipment. Galley installation Cargo handling and retention equipment. Air stairs</p>	<p>EASA part-CAT</p> <p>LTT 11.07 s 82-130</p> <p>LTT 11.07 s 2-81</p>		
<p>11.9</p> <p>11.9.3</p> <p>11.9.7</p>	<p>FLIGHT CONTROLS (ATA 27)</p> <p>Active load control;</p> <p>Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks systems;</p>	<p>LTT 11.09, internett og MM til skolens fly</p>		
<p>11.11</p> <p>Level 3</p>	<p>HYDRAULIC POWER (ATA 29)</p> <p>DEFINITIONS AND SYSTEM ARCHITECTURE</p> <p>STORAGE RESERVOIR AIR PRESSURIZATION</p> <p>SYSTEM PRESSURIZATION DISTRIBUTION LINES</p> <p>HYDRAULIC CONTROLS HYDRAULIC SERVICING LEAK TEST SYSTEM</p>	<p>Grunnleggende PP Bilag no1-8</p> <p>LTT 11.11 s 2-29</p> <p>LTT 11.11 s 30-53</p> <p>LTT 11.11 s 54-113</p> <p>LTT 11-11 s 114-153</p>		



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<p>11.16 Level 3</p>	<p>PNEUMATIC/VACUUM (ATA 36)</p> <p>GENERAL SYSTEM DESCRIPTION</p> <p>PRESSURE REGULATION SYSTEM TEMPERATURE REGULATION ALTERNATE AIR SOURCES CROSSBLEED SYSTEM & LEAK DETECTION</p> <p>CONTROLS AND INDICATION SIMULATION</p>	<p>LTT 11.13 s 2-15</p> <p>LTT 11.13 s 16-49</p> <p>LTT 11.13 s 50-62</p>		
<p>11.17 Level 3</p>	<p>WATER/WASTE (ATA 38)</p> <p>POTABLE WATER SYSTEM WATER SERVICING WASTE DISPOSAL SYSTEM</p>	<p>LTT 11.17 s2-71 Internett og MM til skolens fly</p>		
<p>11.18 Level 2</p>	<p>ON BOARD MAINTENANCE SYSTEMS (ATA 45)</p> <p>CMC SYSTEM ARCHITECTURE CMC SYSTEM OPERATION DATA LOADING SYSTEM</p>	<p>LTT 11.18 s 2-113</p>		
<p>11.19 Level 2</p>	<p>INTEGRATED MODULAR AVIONICS (ATA 42)</p> <p>Network Fundamentals. Modularised Avionics warning Electronic Assembly (MAWEA). Airplane information Management System (AIMS) IMA A380.</p>	<p>LTT 11.19, s 1 - 51</p>		
<p>11.20 Level 2</p>	<p>CABIN SYSTEMS (ATA 44)</p> <p>Cabin Core Systems. Cabin Intercommunication Data system (CIDS). Advanced Cabin Entertainment /Service System (ACCESS). Network integrated Cabin Equipment (NICE).</p>	<p>LTT 11.20, s 1 - 73</p>		
<p>11.21 Level 2</p>	<p>INFORMATION SYSTEMS (ATA 46)</p> <p>Air Traffic and Information systems. Flight Deck Information Systems. Aircraft and Cabin Information Network. Electronic Flight Bag.</p>	<p>LTT 11.21, s 1 - 41</p>		