

Appendices 4.2.2: Basic Training course ΔB1.1 → B2

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Content of the Basic Training course Δ B1.1→B2

All modules and sub-modules applicable to the B2 training course are compared with de B1.1 training course. All mandatory elements are added to this Δ B1.1→B2 training course.

The examination standard is listed per basic training Module.

The syllabi is the basis for creating a course program including the assigned teachers and instructors per module/submodule.

Module	Comparison content and Level module B1.1 to B2	Total credit
1	Equal	Yes
2	Equal	Yes
3	Equal	Yes
4	Equal or lower	No
5	Equal or lower	No
6	Equal or higher	Yes
7	Equal or lower	Yes
8	Equal	Yes
9	Equal	Yes
10	Equal	Yes
11	Not required	-
13	Compared to M11	No
14	Compared to M15	No
15	Not required	-
17	Not required	-

Modules and sub modules	Application CAT		Total Hours B1		Total Hours B2	
	B1	B2	Theory	Practice	Theory	Practice
Module 4. Electronics Fundamentals	B1	B2	-	-	52	-
<i>4.1 Semiconductors</i>						
<i>4.1.1 Diodes</i>						
4.1.1(a) Description and characteristics	x	x				
4.1.1(b) Operation and function	-	x				
<i>4.1.2 Transistors</i>						
4.1.2(a) Description and characteristics	x	x				
4.1.2(b) Construction and operation	-	x				
<i>4.1.3 Integrated Circuits</i>						
4.1.3(a) Description and operation	x	x				
4.1.3(b) Introduction to the operation and function of an operational amplifiers as;	-	x				
4.2 Printed circuit boards	x	x				
<i>4.3 Servomechanisms</i>						
4.3(a) Principles	x	x				
4.3(b) Construction and operation	-	x				

Exam planning	In accordance with AMTS planning or on request			
Part-item	Cat. B1	exam	Cat. B2	exam
4.1.1a	8 level 2		8 level 2	ΔB1.1 → B2 M04-x
4.1.1b	-		7 level 2	
4.1.2a	4 level 1		4 level 2	
4.1.2b	-		7 level 2	
4.1.3a	3 level 1		2 level 2	
4.1.3b	-		4 level 2	
4.2	2 level 1		3 level 2	
4.3a	3 level 1		2 level 2	
4.3b	-		3 level 2	
			32 MC	40 min.

Modules and sub modules	Application CAT			Total Hours A		Total Hours B1		Total Hours B2	
	A	B1	B2	Theory	Practice	Theory	Practice	Theory	Practice
Module 5. Digital Techniques/electronic instrument systems	A	B1	B2	-	-	-	-	54	-
5.1 Electronic instrument systems	x	x	x						
5.2 Numbering systems	-	x	x						
5.3 Data conversion	-	x	x						
5.4 Data buses	-	x	x						
<i>5.5 Logic circuits</i>									
5.5(a) Identification and applications	-	x	x						
5.5(b) Interpretation of logic diagrams	-	-	x						
<i>5.6 Basic Computer Structure</i>									
5.6(a) Computer terminology and technology	x	x	-						
5.6(b) Computer operation	-	-	x						
5.7 Microprocessors	-	-	x						
5.8 Integrated circuits	-	-	x						
5.9 Multiplexing	-	-	x						
5.10 Fibre optics	-	x	x						
5.11 Electronic displays	x	x	x						
5.12 Electrostatic-sensitive devices	x	x	x						
5.13 Software management control	-	x	x						
5.14 Electromagnetic environment	-	x	x						
5.15 Typical electronic/digital aircraft systems	x	x	x						

Exam planning	In accordance with AMTS planning or on request					
Part-item	Cat. A	exam	Cat. B1	exam	Cat. B2	exam
5.1	4 level 1	A-M05-x	4 level 1		4 level 1	ΔB1.1 → B2 M05-x
5.2	-		3 level 1		5 level 2	
5.3	-		3 level 1		4 level 2	
5.4	-		3 level 2		5 level 2	
5.5a	-		3 level 2		4 level 2	
5.5b	-		-		4 level 2	
5.6a	6 level 1		4 level 2		2 Level 2	
5.6b	-		-		6 level 2	
5.7	-		-		4 level 2	
5.8	-		-		5 level 2	
5.9	-		-		4 level 2	
5.10	-		3 level 1		4 level 2	
5.11	2 level 1		2 level 2		4 level 2	
5.12	6 level 1		4 level 2		5 level 2	
5.13	-		3 level 2		3 level 2	
5.14	-		3 level 2		4 level 2	
5.15	2 level 1		5 level 1		6 level 1	
	20 MC	25 min.	40	50 min.	36 Mc	45 min.

Modules and sub modules	Application CAT	Total Hours ALL	
		Theory	Practice
Module 13. Aircraft aerodynamics, structures and systems	B2		630
<i>13.1 Theory of flight</i>			
13.1a Aeroplane aerodynamics and flight controls	x		
13.1b Rotary wing aerodynamics	x		
<i>13.2 Structures – general concepts (ATA 51)</i>			
13.2(a) General concepts	x		
13.2(b) Fundamentals of structural systems	x		
<i>13.3 Autoflight (ATA22)</i>			
13.3(a) Fundamentals of automatic flight control	x		
13.3(b) Autothrottle systems and automatic landing systems	x		
13.4 Communication/navigation (ATA23/34)	x		
13.4(a) Fundamentals of communication and navigation systems	x		
13.4(b) Fundamentals of aircraft surveillance systems	x		
13.5 Electrical power (ATA 24)	x		
13.6 Equipment and furnishings (ATA 25)	x		
<i>13.7 Flight controls</i>			
13.7(a) Primary and secondary flight controls (ATA 27)	x		
13.7(b) Actuation and protection	x		
13.7(c) System operation	x		
13.7(d) Rotorcraft controls (ATA 67)	x		
13.8 Instruments (ATA 31)	x		
13.9 Lights (ATA 33)	x		
13.10 Onboard maintenance systems (ATA 45)	x		
<i>13.11 Air conditioning and cabin pressurisation (ATA 21)</i>			
13.11(a) Pressurisation:	x		
13.11(b) Air supply:	x		
13.11(c) Air Conditioning	x		
13.11(d) Safety and warning devices	x		
13.12 Fire protection (ATA 26)	x		
13.12(a) Fire and smoke detection system and fire-extinguishing systems	x		
13.12(b) Portable fire extinguisher	x		
<i>13.13 Fuel systems (ATA 28, ATA 47)</i>			
13.13(a) System layout:	x		
13.13(b) Fuel handling;	x		
13.13(c) Indications and warnings	x		
13.13(d) Special systems:	x		
13.13(e) Balancing:	x		
<i>13.14 Hydraulic power (ATA 29)</i>			
13.14(a) System layout	x		
13.14(b) System operation (1)	x		
13.14(c) System operation (2)	x		
<i>13.15 Ice and rain protection (ATA 30)</i>			
13.15(a) Principles:	x		
13.15(b) De-icing:	x		
13.15(c) Anti-icing:	x		
13.15(d) Wiper systems	x		
13.15(e) Rain repellent	x		
<i>13.16 Landing gear (ATA 32)</i>			
13.16(a) Description:	x		
13.16(b) System:	x		
13.16(c) Air-ground sensing	x		

13.17 Oxygen (ATA 35)	x		
13.18 Pneumatic/vacuum (ATA 36)	x		
13.19 Water/waste (ATA 38)	x		
13.20 Integrated modular avionics (IMA) (ATA 42)			
13.20(a) Overall system description and theory	x		
13.20(b) Typical system layouts	x		
13.21 Cabin systems (ATA 44)	x		
13.22 Information systems (ATA 46)	x		

Exam planning Part-item	In accordance with AMTS planning or on request		M11	Credits
	Cat. B2	exam		
		ΔB1.1 → B2 M13-x		
13.1a	3 level 1		11.1a	yes
13.1b	1 level 1		-	no
13.2a	4 level 2		11.2a	yes
13.2b	4 level 1		11.2 + 11.3	yes
13.3a	16 level 3		11.5.2	no
13.3b	8 level 3		-	no
13.4(a)	24 level 3		11.5.2	no
13.4(b)	4 level 3		11.5.2	no
13.5	13 level 3		11.6	yes
13.6	5 level 3		11.7	no
13.7(a)	4 level 2		11.9a	yes
13.7(b)	4 level 2		11.9b	yes
13.7(c)	2 level 3		11.9c	yes
13.7(d)	2 level 2		-	no
13.8	20 level 3		11.5	no
13.9	7 level 3		11.14	yes
13.10	5 level 3		11.18	no
13.11(a)	2 level 3		11.4a	yes
13.11(b)	2 level 1		11.4b	yes
13.11(c)	2 level 3		11.4c	yes
13.11(d)	2 level 3		11.4d	yes
13.12a	2 level 3		11.8a	no
13.12b	1 level 1		11.8b	yes
13.13a	2 level 1		11.10a	yes
13.13b	2 level 2		11.10b	yes
13.13c	2 level 3		11.10c	yes
13.13d	2 level 1		11.10c	yes
13.13e	1 level 3		11.10e	yes
13.14a	1 level 1		11.11a	yes
13.14b	5 level 3		11.11b	yes
13.14c	5 level 3		11.11c	yes
13.15a	1 level 2		11.12a	yes
13.15b	2 level 3		11.12b	yes
13.15c	1 level 2		11.12c	yes
13.15d	1 level 1		11.12d	yes
13.15e	1 level 1		11.12e	yes
13.16a	1 level 1		11.13a	yes
13.16b	3 level 3		11.13b	yes
13.16c	3 level 3		11.13c	yes
13.17	2 level 3		11.15	yes
13.18	6 level 2		11.16	yes
13.19	2 level 2		11.17a	yes
13.20a	2 level 3		11.19a	no
13.20b	1 level 3		11.19b	no
13.21	3 level 3		11.20	no

13.22	3 level 3		11.21	no
	96 MC	120 min.		

Modules and sub modules	Application CAT	Total Hours B2	
		Theory	Practice
Module 14. Propulsion	B2	42	
<i>14.1 Engines</i>			
14.1(a) Constructional arrangement and operation of turbojet, turbofan, turboshaft, and turboprop engines	x		
14.1(b) Constructional arrangement and operation auxiliary power units (APUs)	x		
14.1(c) Constructional arrangement and operation piston engines	x		
14.1(d) Constructional arrangement and operation electric and hybrid engines	x		
14.1(e) Engine control and fuel metering	x		
14.2 Electric/electronic engine indication systems	x		
14.3 Propeller systems	x		
14.4 Starting and ignition systems	x		

Exam planning	In accordance with AMTS planning or on request	
Part-item	Cat. B2	exam
14.1(a)	3 level 1	B2-M14-x
14.1(b)	4 level 1	
14.1(c)	2 level 1	
14.1(d)	4 level 2	
14.1(e)	3 level 2	
14.2	10 level 2	
14.3	2 level 2	
14.4	4 level 2	
	32 MC	40 min.