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JAR-FCL 1.160(a)/1.165(a)/1.205/1.285(a)
App 1 to JAR-FCL 1.160 & 1.165 (a) (1), (2), (3) et (4)
App 1 to JAR-FCL 1.205
App 1 to JAR-FCL 1.285
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App 1 to JAR-FCL 1.160 & 1.165 (a) (1), (2), (3) et (4)
App 1 to JAR-FCL 1.205
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FCL 6

Cette circulaire décrit les cours de formation pour l'obtention d'une ATPL(A), une CPL(A) et une IR(A).

FCL 6

Deze circulaire beschrijft de opleidingscursussen voor het bekomen van een ATPL(A), een CPL(A) en een IR(A).

- ATPL(A) : integrated course JAR-FCL 1.160 & 1.165(a)(1) – AMC FCL 1.160 & 1.165(a)(1)
- CPL/IR(A) : integrated course JAR-FCL 1.160 & 1.165(a)(2) – AMC FCL 1.160 & 1.165(a)(2)
- CPL(A) : integrated course JAR-FCL 1.160 & 1.165(a)(3) – AMC FCL 1.160 & 1.165(a)(3)
- CPL(A) : modular course JAR-FCL 1.160 & 1.165(a)(4) – AMC FCL 1.160 & 1.165(a)(4)
- IR(A) : modular course Appendix 1 JAR-FCL 1.205
- ATPL(A) : modular course Appendix 1 JAR-FCL 1.285

Appendix 1 to JAR–FCL 1.160 & 1.165(a)(1)
ATP(A) integrated course
(See JAR–FCL 1.160, 1.165 & 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.210)
(See AMC FCL 1.160 & 1.165(a)(1))
(See Appendix 1 to JAR-FCL 1.470)
(See IEM FCL 1.170)

1 The aim of the ATP(A) integrated course is to train pilots to the level of proficiency necessary to enable them to operate as co-pilot on multi-pilot, multi-engine aeroplanes in commercial air transportation and to obtain the CPL(A)/IR.

2 An applicant wishing to undertake an ATP(A) integrated course shall, under the supervision of the Head of Training of an approved flying training organisation (FTO), complete all the instructional stages in one continuous approved course of training as arranged by that FTO.

3 The course shall last for between 12 and 36 months. Special arrangements may be made with the approval of the Authority to extend the course beyond 36 months where additional flying training or ground instruction is provided by the FTO.

4 An applicant may be admitted to training either as an ab-initio entrant, or as a holder of a PPL(A) or PPL(H) issued in accordance with ICAO Annex 1. An ab-initio entrant shall meet the student pilot requirements of article 28 of the Royal Decree of 4 March 2008. In the case of a PPL(A) or PPL(H) entrant, 50% of the aircraft hours flown by the entrant prior to the course may be credited towards the required flight instruction (JAR-FCL 1.165(a)(1) and Appendix 1 to JAR-FCL 1.165(a)(1), paragraph 13) up to a credit of 40 hours flying experience or 45 hours if an aeroplane night flying qualification has been obtained, of which up to 20 hours may be dual instruction. This credit for the hours flown shall be at the discretion of the FTO and entered into the applicant's training record. In the case of a student pilot who does not hold a pilot licence and with the approval of the Authority a FTO may designate certain dual exercises (see AMC FCL 1.160 & 1.165(a)(1), phase 2 & 3) to be flown in a helicopter or a TMG up to a maximum of 20 hours.

5 An applicant failing or unable to complete the entire ATP(A) course may apply to the Authority for the theoretical knowledge examination and skill test for a lower licence and, if applicable, an instrument rating.

6 Any applicant wishing to transfer to another FTO during a course of training shall apply to the Authority for a formal assessment of the further hours of training required at another FTO.

7 The FTO shall ensure that before being admitted to the course the applicant has sufficient knowledge of Mathematics, Physics and English, to facilitate an understanding of the theoretical knowledge instruction content of the course. The required level of English shall be in accordance with circular CIR/FCL 15.

8 The course shall comprise:

(a) theoretical knowledge instruction to the ATPL(A) knowledge level;

(b) visual and instrument flying training; and

(c) training in multi-crew co-operation for the operation of multi-pilot aeroplanes.

9 The successful completion of the theoretical knowledge examination(s) at paragraph 12 and of the skill test(s) at paragraph 14 fulfil the theoretical knowledge and skill requirements for the issue of a CPL(A) including a class or type rating for the aeroplane(s) used in the test(s) and a multi-engine instrument rating (A).

THEORETICAL KNOWLEDGE

10 The theoretical knowledge syllabus is set out in circular CIR/FCL 12. An approved ATP(A) theoretical knowledge course shall comprise at least 750 hours (1 hour = 60 minutes instruction) of instruction which can include classroom work, inter-active video, slide/tape presentation, learning carrels, computer based training, and other media as approved by the Authority, in suitable proportions.

The 750 hours of instruction shall be divided in such a way that in each subject the minimum hours are:

Subject	*hours*
Air Law	40
Aircraft General Knowledge	80
Flight Performance & Planning	90
Human Performance & Limitations	50
Meteorology	60
Navigation	150
Operational Procedures	20
Principles of Flight	30
Communications	30

Other sub-division of hours may be agreed between the Authority and the FTO.

11 MCC course shall comprise at least 25 hours of theoretical knowledge instruction and exercises.

THEORETICAL KNOWLEDGE EXAMINATION

12 An applicant shall demonstrate the level of knowledge appropriate to the privileges of the holder of an ATPL(A), in accordance with the requirements in circular CIR/FCL 12.

FLYING TRAINING

13 The flying training, not including type rating training, shall comprise a total of at least 195 hours, to include all progress tests, of which up to 55 hours for the entire course may be instrument ground time. Within the total of 195 hours, applicants shall complete at least:

(a) 95 hours of dual instruction of which up to 55 hours may be instrument ground time;

(b) 70 hours as pilot-in-command including VFR flight and instrument flight time as student pilot-in-command (SPIC). (SPIC time shall be credited as pilot-in-command time, unless the flight instructor had to influence or control any part of the flight. A ground de-briefing by the flight instructor does not affect the crediting as pilot-in-command time);

(c) 50 hours of cross-country flight as pilot-in-command including a VFR cross-country flight totalling at least 540 km (300 NM) in the course of which full stop landings at two aerodromes different from the aerodrome of departure shall be made;

(d) 5 hours flight time in aeroplanes shall be completed at night comprising 3 hours of dual instruction including at least 1 hour of cross-country navigation and 5 solo take-offs and 5 solo full stop landings; and

(e) 115 hours of instrument time comprising, at least:

(i) 50 hours of instrument flight instruction of which up to 25 hours may be instrument ground time in a FNPT I, or 40 hours if the instrument ground training is conducted in an FNPT II or flight simulator;

(ii) 20 hours as SPIC; and

(iii) 15 hours multi-crew co-operation, for which a flight simulator or FNPT II may be used.

See AMC-FCL 1.160 & 1.165(a)(1) for the flight instruction syllabus.

SKILL TESTS

14 On completion of the related flying training the applicant shall take the CPL(A) skill test on either a single-engine or a multi-engine aeroplane in accordance with circular CIR/FCL 9 and the instrument rating skill test on a multi-engine aeroplane in accordance with circular CIR/FCL 10 and such other tests as are required by article 65 of the Royal Decree of 4 March 2008.

AMC FCL 1.160 & 1.165(a)(1)
ATP(A) integrated course
See JAR–FCL 1.160 & 165
(See AMC FCL 1.470(a))
(See IEM FCL 1.170)

The flying instruction is divided into five phases:

Phase 1

1 Exercises up to the first solo flight comprise a total of at least 10 hours dual flight instruction on a single-engine aeroplane including:

a. pre-flight operations, mass and balance determination, aeroplane inspection and servicing;

b. aerodrome and traffic pattern operations, collision avoidance and precautions;

c. control of the aeroplane by external visual references;

d. normal take-offs and landings;

e. flight at critically slow airspeeds, recognition of and recovery from incipient and full stalls, spin avoidance; and

f. unusual attitudes and simulated engine failure.

Phase 2

2 Exercises up to the first solo cross-country flight comprise a total of at least 10 hours of dual flight instruction and at least 10 hours solo flight including:

a. maximum performance (short field and obstacle clearance) take-offs, short-field landings;

b. flight by reference solely to instruments, including the completion of a 180° turn;

c. dual cross-country flying using external visual references, dead-reckoning and radio navigation aids, diversion procedures;

d. aerodrome and traffic pattern operations at different aerodromes;

e. crosswind take-offs and landings;

f. abnormal and emergency procedures and manoeuvres, including simulated aeroplane equipment malfunctions;

g. operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radio telephony procedures and phraseology; and

h. knowledge of meteorological briefing arrangements, evaluation of weather conditions for flight and use of Aeronautical Information Services (AIS).

Phase 3

3 Exercises up to the VFR navigation progress test comprise a total of at least 5 hours of dual instruction and at least 40 hours as pilot-in-command.

4 The dual instruction and testing up to the VFR navigation progress test shall comprise:

a. repetition of exercises of Phases 1 and 2;

b. VFR flight at relatively critical high airspeeds, recognition of and recovery from spiral dives;

c. VFR navigation progress test conducted by a flight instructor not connected with the applicant's training;

Phase 4

5 Exercises up to the instrument rating skill test comprise:

a. at least 55 hours instrument flight, which may contain up to 25 hours of instrument ground time in a FNPT I or up to 40 hours in an FNPT II or flight simulator which shall be conducted by a flight instructor and/or an authorised synthetic flight instructor; and

b. 20 hours instrument time flown as SPIC;

c. night flight including take-offs and landings as pilot-in-command;

d. pre-flight procedures for IFR flights, including the use of the flight manual and appropriate air traffic services documents in the preparation of an IFR flight plan;

e. procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least;

- transition from visual to instrument flight on take-off
- standard instrument departures and arrivals
- en route IFR procedures
- holding procedures
- instrument approaches to specified minima
- missed approach procedures
- landings from instrument approaches, including circling;

f. in-flight manoeuvres and specific flight characteristics; and

g. operation of a multi-engine aeroplane in the exercises of 5(e), including operation of the aeroplane solely by reference to instruments with one engine simulated inoperative, and engine shut-down and restart. (The latter training shall be at a safe altitude unless carried out in a synthetic training device).

Phase 5

6 Instruction and testing in multi-crew co-operation (MCC) comprise the relevant training requirements set out in circular FCL 23.

7 If a type rating for multi-pilot aeroplanes is not required on completion of this part, the applicant will be provided with a certificate of course completion for MCC training as set out in circular FCL 23.

Appendix 1 to JAR–FCL 1.160 & 1.165(a)(2)
CPL(A)/IR integrated course
(See JAR–FCL 1.160, 1.165 & 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.210)
(See AMC FCL 1.160 & 1.165(a)(2))
(See Appendix 1 to JAR-FCL 1.470)
(See IEM FCL 1.170)

1 The aim of the CPL(A) and IR(A) integrated course is to train pilots to the level of proficiency necessary to operate single-pilot single-engine or multi-engine aeroplanes in commercial air transportation and to obtain the CPL(A)/IR.

2 An applicant wishing to undertake a CPL(A)/IR integrated course shall, under the supervision of the Head of Training of an approved flying training organisation (FTO), complete all the instructional stages in one continuous approved course of training as arranged by that FTO.

3 The course shall last for between 9 and 30 months.

4 An applicant may be admitted to training either as an ab-initio entrant, or as a holder of a PPL(A) or PPL(H) issued in accordance with ICAO Annex 1. An ab-initio entrant shall meet the student pilot requirements of article 28 of the Royal Decree of 4 March 2008. In the case of a PPL(A) or PPL(H) entrant, 50% of the aircraft hours flown by the entrant prior to the course may be credited towards the required flight instruction (JAR-FCL 1.165(a)(2) and Appendix 1 to JAR-FCL 1.165(a)(2), paragraph 12) up to a credit of 40 hours flying experience or 45 hours if an aeroplane night flying qualification has been obtained, of which up to 20 hours may be dual instruction. This credit for the hours flown shall be at the discretion of the FTO and entered into the applicant's training record. In the case of a student pilot who des not hold a pilot licence and with the approval of the Authority a FTO may designate certain dual excercises (see AMC FCL 1.160 & 1.165(a)(2), phase 2 & 3) to be flown in a helicopter or a TMG up to a maximum of 20 hours.

5 An applicant failing or unable to complete the entire CPL(A)/IR course may apply to the Authority for the theoretical knowledge examination and skill test for a lower licence and, if applicable, an instrument rating.

6 Any applicant wishing to transfer to another FTO during a course of training shall apply to the Authority for a formal assessment of the further hours of training required at another FTO.

7 The FTO shall ensure that before being admitted to the course the applicant has sufficient knowledge of Mathematics, Physics and English to facilitate an understanding of the theoretical knowledge instruction content of the course. The required level of English shall be in accordance with circular CIR/FCL 15.

8 The course shall comprise:

(a) theoretical knowledge instruction to CPL(A) and IR knowledge level; and

(b) visual and instrument flying training.

9 The successful completion of the theoretical knowledge examination(s) at paragraph 11 and of the skill test at paragraph 13 fulfill the theoretical knowledge and skill requirements for the issue of a CPL(A) including a class or type rating for the aeroplane(s) used in the test(s) and either a multi-engine or a single engine instrument rating (A).

THEORETICAL KNOWLEDGE

10 The theoretical knowledge syllabus is set out in circulars CIR/FCL 13 and CIR/FCL 14. An approved CPL(A)/IR theoretical knowledge course shall comprise at least 500 hours of instruction which can include classroom work, inter-active video, slide/tape presentation, learning carrels, computer based training, and other media as approved by the Authority, in suitable proportions. The 500 hours (1 hour = 60 minutes instruction) of instruction shall be divided in such a way that in each subject the minimum hours are:

Subject	*hours*
Air Law	30
Aircraft General Knowledge	50
Flight Performance & Planning	60
Human Performance & Limitations	15
Meteorology	40
Navigation	100
Operational Procedures	10
Principles of Flight	25
Communications	30

Other sub-divisions of hours may be agreed between the Authority and the FTO.

THEORETICAL KNOWLEDGE EXAMINATION

11 An applicant shall demonstrate a level of knowledge appropriate to the privileges of the holder of a CPL(A) and an instrument rating, in accordance with the requirements in circulars CIR/FCL 13 and CIR/FCL 14.

FLYING TRAINING

12 The flying training, not including type rating training, shall comprise a total of at least 180 hours, to include all progress tests, of which up to 40 hours for the entire course may be instrument ground time. Within the total of 180 hours, applicants shall complete at least:

(a) 80 hours of dual instruction of which up to 40 hours may be instrument ground time;

(b) 70 hours as pilot-in-command including VFR flight and instrument flight time as student pilot-in-command (SPIC). (SPIC time shall be credited as pilot-in-command time, unless the flight instructor had to influence or control any part of the flight. A ground de-briefing by the flight instructor does not affect the crediting as pilot-in-command time);

(c) 50 hours of cross-country flight as pilot-in-command including a VFR cross-country flight totalling at least 540 km (300 NM) in the course of which full stop landings at two aerodromes different from the aerodrome of departure shall be made;

(d) 5 hours flight time in aeroplanes shall be completed at night comprising at least 3 hours of dual instruction including at least one hour of cross-country navigation and 5 solo take-offs and 5 solo full stop landings; and

(e) 100 hours of instrument time comprising, at least:

(i) 50 hours of instrument flight instruction of which up to 25 hours may be instrument ground time in a FNPT I or 40 hours if all the instrument ground training is conducted in an FNPT II or flight simulator;

(ii) 20 hours as SPIC.

See AMC FCL 1.160 & 1.165(a)(2) for the flight instruction syllabus.

SKILL TESTS

13 On completion of the related flying training the applicant shall take the CPL(A) skill test on either a multi-engine aeroplane or a single-engine aeroplane in accordance with circular CIR/FCL 9 and the instrument rating skill test on either a single-engine or a multi-engine aeroplane in accordance with circular CIR/FCL 10.

AMC FCL 1.160 & 1.165(a)(2)
CPL(A)/IR integrated course
See JAR–FCL 1.160 & 1.165
(See AMC FCL 1.470 (b) & (c))
(See IEM FCL 1.170)

The flying instruction is divided into four phases:

Phase 1

1 Exercises up to the first solo flight comprise a total of at least 10 hours dual flight instruction on a single-engine aeroplane including:

a. pre-flight operations, mass and balance determination, aeroplane inspection and servicing;

b. aerodrome and traffic pattern operations, collision avoidance and precautions;

c. control of the aeroplane by external visual references;

d. normal take-offs and landings;

e. flight at critically slow airspeeds, recognition of and recovery from incipient and full stalls, spin avoidance; and

f. unusual attitudes and simulated engine failure.

Phase 2

2 Exercises up to the first solo cross-country flight comprise a total of at least 10 hours of dual flight instruction and at least 10 hours solo flight including:

a. maximum performance (short field and obstacle clearance) take-offs, short-field landings;

b. flight by reference solely to instruments, including the completion of a 180° turn;

c. dual cross-country flying using external visual references, dead-reckoning and radio navigation aids, diversion procedures;

d. aerodrome and traffic pattern operations at different aerodromes;

e. crosswind take-offs and landings;

f. abnormal and emergency operations and manoeuvres, including simulated aeroplane equipment malfunctions;

g. operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radio telephony procedures and phraseology; and

h. knowledge of meteorological briefing arrangements, evaluation of weather conditions for flight and use of Aeronautical Information Services (AIS).

Phase 3

3 Exercises up to the VFR navigation progress test comprise a total of at least 5 hours of instruction and at least 40 hours as pilot-in-command.

4 The dual instruction and testing up to the VFR navigation progress test and the skill test shall contain the following:

a. repetition of exercises of Phases 1 and 2;

b. VFR flight at relatively critical high airspeeds, recognition of and recovery from spiral dives;

c. VFR navigation progress test conducted by a flight instructor not connected with the applicant's training;

Phase 4

5 Exercises up to the instrument rating skill test comprise :

a. at least 55 hours instrument time, which may contain up to 25 hours of instrument ground time in an FNPT I or up to 40 hours in an FNPT II or flight simulator which shall be conducted by a flight instructor and/or an authorised synthetic flight instructor, and;

b. 50 hours instrument time flown as SPIC;

c. night flight including take-offs and landings as pilot-in-command;

d. pre-flight procedures for IFR flights, including the use of the flight manual and appropriate air traffic services documents in the preparation of an IFR flight plan;

e. procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:

- transition from visual to instrument flight on take-off
- standard instrument departures and arrivals
- en route IFR procedures
- holding procedures
- instrument approaches to specified minima
- missed approach procedures
- landings from instrument approaches, including circling;

f. in flight manoeuvres and particular flight characteristics; and

g. operation of a multi-engine aeroplane in the exercises of 5(e), including operation of the aeroplane solely by reference to instruments with one engine simulated inoperative and engine shut down and restart; (the latter exercise at a safe altitude unless carried out in a synthetic training device).

Appendix 1 to JAR–FCL 1.160 & 1.165(a)(3)
CPL(A) integrated course
(See JAR–FCL 1.160, 1.165 & 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.170)
(See AMC FCL 1.160 & 1.165(a)(3))
(See Appendix 1 to JAR-FCL 1.470)
(See IEM-FCL 1.170)

1 The aim of the CPL(A) integrated course is to train pilots to the level of proficiency necessary for the issue of a CPL(A), and any further aerial work training that the applicant wishes to receive, excluding flight instructor training and instrument rating instruction.

2 An applicant wishing to undertake a CPL(A) integrated course shall, under the supervision of the Head of Training of an approved flying training organisation (FTO), complete all the instructional stages in one continuous approved course of training as arranged by that FTO.

3 The course shall last for between 9 and 24 months.

4 An applicant may be admitted to training either as an ab-initio entrant, or as the holder of a PPL(A) or PPL(H) issued in accordance with ICAO Annex 1. An ab-initio entrant shall meet the student pilot requirements of article 28 of the Royal Decree of 4 March 2008. In the case of a PPL(A) or PPL(H) entrant, 50% of the aircraft hours flown by the entrant prior to the course may be credited towards the required flight instruction (JAR-FCL 1.165(a)(3) and Appendix 1 to JAR-FCL 1.165(a)(3), paragraph 12) up to a credit of 40 hours flying experience, or 45 hours if an aeroplane night flying qualification has been obtained, of which up to 20 hours may be dual instruction. This credit for the hours flown shall be at the discretion of the FTO and entered into the applicant's training record. In the case of a student pilot who does not hold a pilot licence and with the approval of the Authority a FTO may designate certain dual exercises (see AMC FCL 1.160 & 1.165(a)(3), phase 2 & 3) to be flown in a helicopter or a TMG up to a maximum of 20 hours.

5 An applicant failing or unable to complete the entire CPL(A) course may apply to the Authority for the theoretical knowledge examination and skill test for a lower licence.

6 Any applicant wishing to transfer to another FTO during a course of training shall apply to the Authority for a formal assessment of the further hours of training required at another FTO.

7 The FTO shall ensure that before being admitted to the course the applicant has sufficient knowledge of Mathematics and Physics to facilitate an understanding of the theoretical knowledge instruction content of the course.

8 The course shall comprise:

(a) theoretical knowledge instruction to CPL(A) knowledge level; and

(b) visual and instrument flying training.

9 The successful completion of the theoretical knowledge examinations at paragraph 11 and of the skill test(s) at paragraph 13 fulfil the knowledge and skill requirements for the issue of a CPL(A) including a class or type rating for the aeroplane(s) used in the test(s).

THEORETICAL KNOWLEDGE

10 The theoretical knowledge syllabus for the CPL(A) is set out in circular CIR/FCL 13. An approved CPL(A) theoretical knowledge course shall comprise at least 300 hours (1 hour = 60 minutes instruction) of instruction (or 200 hours if the applicant is the holder of a PPL) which can include classroom work, inter-active video, slide/tape presentation, learning carrels, computer based training, and other media as approved by the Authority, in suitable proportions.

THEORETICAL KNOWLEGDE EXAMINATION

11 An applicant shall demonstrate a level of knowledge appropriate to the privileges of the holder of a CPL(A) in accordance with the requirements in circular CIR/FCL 13.

FLYING TRAINING

12 The flying training not including the type rating training shall comprise a total of at least 150 hours, to include all progress tests, of which up to 5 hours for the entire course may be instrument ground time. Within the 150 hours total, applicants shall complete at least:

(a) 80 hours of dual instruction of which up to 5 hours may be instrument ground time;

(b) 70 hours as pilot-in-command;

(c) 20 hours of cross-country flight as pilot-in-command including a VFR cross-country flight totalling at least 540 km (300 NM) in the course of which full stop landings at two different aerodromes from the aerodrome of departure shall be made;

(d) 5 hours flight time in aeroplanes shall be completed at night comprising 3 hours of dual instruction including at least 1 hour of cross-country navigation and 5 solo take-offs and 5 full stop landings; and

(e) 10 hours of instrument flight instruction of which up to 5 hours may be instrument ground time in a FNPT I or II or flight simulator.

(f) 5 hours to be carried out in an aeroplane certificated for the carriage of at least four persons and have a variable pitch propeller and retractable landing gear.

See AMC FCL 1.160 & 1.165(a)(3) for the flight instruction syllabus.

SKILL TEST

13 On completion of the flying training the applicant shall take the CPL(A) skill test on a single-engine or a multi-engine aeroplane in accordance with circular CIR/FCL 9.

AMC FCL 1.160 & 1.165(a)(3)
CPL(A) integrated course
(See JAR–FCL 1.160 & 1.165)
(See AMC-FCL 1.470 (b))
(See IEM-FCL 1.170)

The flying instruction is divided into four phases:

Phase 1

1. Exercises up to the first solo flight comprise a total of at least 10 hours dual flight instruction on a single-engine aeroplane including:

h. pre-flight operations, mass and balance determination, aeroplane inspection and servicing;

i. aerodrome and traffic pattern operations, collision avoidance and precautions;

j. control of the aeroplane by external visual references;

k. normal take-offs and landings;

l. flight at relatively slow airspeeds, recognition of and recovery from incipient and full stalls, spin avoidance; and

m. unusual attitudes and simulated engine failure.

Phase 2

2. Exercises up to the first solo cross-country flight comprise a total of at least 10 hours of dual flight instruction and at least 10 hours solo flight including:

    a. maximum performance (short field and obstacle clearance) take-offs, short-field landings;

    b. flight by reference solely to instruments, including the completion of a 180° turn;

    c. dual cross-country flying using external visual references, dead-reckoning and radio navigation aids, diversion procedures;

    d. aerodrome and traffic pattern operations at different aerodromes;

    e. crosswind take-offs and landings;

    f. abnormal and emergency procedures and manoeuvres, including simulated aeroplane equipment malfunctions;

    g. operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radio telephony procedures and phraseology; and

    h. knowledge of meteorological briefing arrangements, evaluation of weather conditions for flight and use of Aeronautical Information Services (AIS).

Phase 3

3. Exercises up to the VFR navigation progress test comprise a total of at least 30 hours instruction and at least 58 hours as pilot-in-command, including:

    a. at least 10 hours instrument time, which may contain 5 hours of instrument ground time in a FNPT or a flight simulator and shall be conducted by a flight instructor and/or an authorised synthetic flight instructor.

    b. repetition of exercises of Phases 1 and 2, which shall include at least five hours in an aeroplane certificated for the carriage of at least four persons and have a variable pitch propeller and retractable landing gear;

    c. VFR flight at relatively critical high airspeeds, recognition of and recovery from spiral dives; and

    d. night flight time including take-offs and landings as pilot-in-command.

Phase 4

4. The dual instruction and testing up to the CPL(A) skill test contain the following:

    a. up to 30 hours instruction which may be allocated to specialised aerial work training;

    b. repetition of exercises in Phase 3, as required.

    c. in flight manoeuvres and particular flight characteristics; and

    d. multi-engine training.

If required, operation of a multi-engine aeroplane including operation of the aeroplane with one engine simulated inoperative, and engine shut down and restart (the latter exercise at a safe altitude unless carried out in a synthetic training device).

Appendix 1 to JAR–FCL 1.160 & 1.165(a)(4)
CPL(A) modular course
(See JAR–FCL 1.125(c))
(See JAR–FCL 1.160, 1.165 & 1.170)
(See Appendix 1 and 2 to JAR–FCL 1.170)
(See AMC FCL 1.160 & 1.165(a)(4))
(See Appendix 1 to JAR-FCL 1.470)
(See IEM-FCL 1.170)

1 The aim of the CPL(A) modular course is to train PPL(A) holders to the level of proficiency necessary for the issue of a CPL(A).

2 (a) Before commencing a CPL(A) modular course an applicant shall be the holder of a PPL(A) issued in accordance with ICAO Annex 1;

(b) Before commencing the flight training an applicant shall:

(i) have completed 150 hours flight time as a pilot; and

(ii) have complied with articles 53 and 56 of the Royal Decree of 4 March 2008 if a multi-engine aeroplane is to be used on the skill test.

3 An applicant wishing to undertake a modular CPL(A) course shall, under the supervision of the Head of Training of an approved flying training organisation (FTO), complete all the instructional stages in one continuous approved course of training as arranged by that FTO. The theoretical knowledge instruction may be given at an approved FTO conducting theoretical knowledge instruction only, in which case the Head of Training of that organisation shall supervise that part of the course.

4 The course of theoretical knowledge shall be completed within 18 months. The flight instruction and skill test shall be completed within the period of validity of the pass in the theoretical examinations, as set out in article 122 of the Royal Decree of 4 March 2008.

5 The FTO shall ensure that before being admitted to the course the applicant has sufficient knowledge of mathematics and physics to facilitate an understanding of the theoretical knowledge instruction content of the course.

6 The course shall comprise:

(a) theoretical knowledge instruction to CPL(A) knowledge level; and

(b) visual and instrument flying training.

7 The successful completion of the theoretical knowledge examination at paragraph 9 and of the skill test at paragraph 13 fulfill the knowledge and skill requirements for the issue of a CPL(A) including a class or type rating for the aeroplane used in the test.

THEORETICAL KNOWLEDGE

8 The theoretical knowledge syllabus for the CPL(A) is set out in circular CIR/FCL 13. An approved CPL(A) theoretical knowledge course shall comprise at least 200 hours (1 hour = 60 minutes instruction) of instruction, which can include classroom work, inter-active video, slide/tape presentation, learning carrels, computer based training, and other media as approved by the Authority, in suitable proportions. Approved distance learning (correspondence) courses may also be offered as part of the course at the discretion of the Authority.

THEORETICAL KNOWLEDGE EXAMINATION

9 An applicant shall demonstrate a level of knowledge appropriate to the privileges of the holder of a CPL(A) in accordance with the requirements in circular CIR/FCL 13.

FLYING TRAINING

10 Applicants without an instrument rating shall be given at least 25 hours dual flight instruction (see AMC FCL 1.160 & 1.165(a)(4)), including 10 hours of instrument instruction of which up to 5 hours may be instrument ground time in a BITD or a FNPT I or II or a flight simulator (See AMC FCL 1.160 & 1.165(a)(4)). Applicants holding a valid IR(A) shall be fully credited towards the dual instrument instruction time. Applicants holding a valid IR(H) may be credited up to 5 hours of the dual instrument instruction time, in which case at least 5 hours dual instrument instruction time shall be given in an aeroplane.

11 (a) Applicants with a valid instrument rating shall be given at least 15 hours dual visual flight instruction.

(b) Applicants without a night flying qualification aeroplane shall be given additionally at least 5 hours night flight instruction (circular CIR/FCL 11).

12 At least five hours of the flight instruction shall be carried out in an aeroplane certificated for the carriage of at least four persons and have a variable pitch propeller and retractable landing gear.

See AMC FCL 1.160 & 1.165(a)(4) for the flight instruction syllabus.

SKILL TEST

13 On completion of the flying training and relevant experience requirements the applicant shall take the CPL(A) skill test on either a single-engine or a multi-engine aeroplane in accordance with circular CIR/FCL 9.

AMC FCL 1.160 & 1.165(a)(4)
CPL(A) modular course
(See JAR–FCL 1.160 & 1.165)
(See Appendix 1 to JAR-FCL 1.470)
(See IEM-FCL 1.170)

Flight training:

	Visual flight training	Suggested Flight time
1	Pre-flight operations; mass and balance determination, aeroplane inspection and servicing.	
2	Take-off, traffic pattern, approach and landing. Use of checklist; collision avoidance; checking procedures.	0:45
3	Traffic patterns: simulated engine failure during and after take-off.	0:45
4	Maximum performance (short field and obstacle clearance) take-offs; short-field landings.	1:00
5	Crosswind take-offs and landings; go-arounds.	1:00
6	Flight at relatively critical high airspeeds; recognition of and recovery from spiral dives.	0:45
7	Flight at critically slow airspeeds, spin avoidance, recognition of, and recovery from, incipient and full stalls.	0:45
8	Cross-country flying – using dead reckoning and radio navigation aids. Flight planning by the applicant; filing of ATC flight plan; evaluation of weather briefing documentation, NOTAM etc; radio telephony procedures and phraseology; positioning by radio navigation aids; operation to, from and transiting controlled aerodromes, compliance with air traffic services procedures for VFR flights, simulated radio communication failure, weather deterioration, diversion procedures; simulated engine failure during cruise flight; selection of an emergency landing strip.	10:00

Instrument flight training

This module is identical to the 10 hour Basic Instrument Flight Module as set out in AMC FCL 1.205. This module is focused on the basics of flying by sole reference to instruments, including limited panel and unusual attitudes.

All exercises may be performed in a FNPT I or II or a flight simulator. If instrument flight training is in VMC, a suitable means of simulating IMC for the student should be used.

A BITD may be used for the following exercises 9, 10, 11, 12, 14 and 16.

The use of the BITD is subject to the following:

- the training shall be complemented by exercises on an aeroplane;
- the record of the parameters of the flight must be available; and
- A FI(A) or IRI(A) shall conduct the instruction.

9	Basic instrument flying without external visual cues. Horizontal flight; power changes for acceleration or deceleration, maintaining straight and level flight; turns in level flight with 15° and 25° bank, left and right; roll-out onto predetermined headings.	0:30
10	Repetition of exercise 9; additionally climbing and descending, maintaining heading and speed, transition to horizontal flight; climbing and descending turns.	0:45
11	Instrument pattern:	0:45
	a. Start exercise, decelerate to approach speed, flaps into approach configuration;	
	b. Initiate standard turn (left or right);	
	c. Roll out on opposite heading, maintain new heading for 1 minute;	
	d. Standard turn, gear down, descend 500 ft/min;	
	e. Roll out on initial heading, maintain descent (500 ft/min) and new heading for 1 minute;	
	f. Transition to horizontal flight, 1.000 ft below initial flight level;	
	g. Initiate go-around; and	

	h. Climb at best rate of climb speed.	
12	Repetition of exercise 9 and steep turns with 45° bank; recovery from unusual attitudes.	0:45
13	Repetition of exercise 12	0:45
14	Radio navigation using VOR, NDB or, if available, VDF; interception of predetermined QDM, QDR.	0:45
15	Repetition of exercise 9 and recovery from unusual attitudes	0:45
16	Repetition of exercise 9, turns and level change **[**and recovery from unusual attitudes**]** with simulated failure of the artificial horizon and/or directional gyro.	0:45
17	Recognition of, and recovery from, incipient and full stalls.	0:45
18	Repetition of exercises 14, 16 and 17	3:30

Multi-engine training

If required, operation of a multi-engine aeroplane in the exercises 1 through 18, including operation of the aeroplane with one engine simulated inoperative, and engine shut down and restart. Before commencing training, the applicant shall have complied with articles 55 and 56 of the Royal Decree of 4 March 2008 as appropriate to the aeroplane used for the test.

Appendix 1 to JAR–FCL 1.205
IR(A) – Modular flying training course
(See JAR–FCL 1.205)
(See Appendix 1 to JAR-FCL 1.470)
(See AMC FCL 1.205)

1 The aim of the IR(A) modular flying training course is to train pilots to the level of proficiency necessary to operate aeroplanes under IFR and in IMC in accordance with ICAO PANS-OPS Document 8168. The course consists of two modules, which may be taken separately or combined:

(a) Basic Instrument Flight Module.

This comprises 10 hours of instrument time under instruction, of which up to 5 hours can be instrument ground time in a BITD, FNPT I or II, or a flight simulator (See AMC FCL 1.205). This module shall be conducted at an approved flying training organisation (FTO). All modules shall be approved by the Authority. Upon completing the Basic Instrument Flight Module under the supervision and to the satisfaction of the Head of Training, the candidate shall be issued a Course Completion Certificate (See Appendix 1 to AMC FCL 1.205).

(b) Procedural Instrument Flight Module.

This comprises the remainder of the training syllabus for the IR(A), 40 hours single-engine or 45 hours multi-engine instrument time under instruction, and the theoretical knowledge course for the IR(A). This module shall be conducted at an approved FTO. All modules shall be approved by the Authority.

2 An applicant for a modular IR(A) course shall be the holder of a PPL(A) or a CPL(A), either licence to include the privileges to fly by night, issued in accordance with ICAO Annex 1. An applicant for the Procedural Instrument Flight Module, who does not hold a CPL(A), shall be holder of a Course Completion Certificate for the Basic Instrument Flight Module.

The Training Organisation shall ensure that the applicant for a multi-engine IR(A) course who has not held a multi-engine aeroplane class or type rating has received the multi-engine training specified in JAR-FCL 1.261(b)(2) prior to commencing the flight training for IR(A) course.

3 An applicant wishing to undertake the Procedural Instrument Flight Module of a modular IR(A) course shall be required, under the supervision of the Head of Training of an approved FTO, to complete all the instructional stages in one continuous approved course of training as arranged by that FTO. Prior to commencing the Procedural Instrument Flight Module the FTO shall ensure the competence of the applicant in basic Instrument flying skills. Refresher training shall be given as required. The theoretical knowledge instruction may be given at an approved FTO conducting theoretical knowledge instruction only, in which case the Head of Training of that organisation shall supervise that part of the course.

4 The course of theoretical instruction shall be completed within 18 months. The Procedural Instrument Flight Module and the skill test shall be completed within the period of validity of the pass in the theoretical examinations, as set out in article 122 of the Royal Decree of 4 March 2008.

5 The course shall comprise:

(a) theoretical knowledge instruction to the instrument rating knowledge level;

(b) instrument flight instruction.

6 The successful completion of the theoretical knowledge examination(s) at paragraph 8 and of the skill test at paragraph 14 fulfill the knowledge and skill requirements for the issue of an IR(A).

THEORETICAL KNOWLEDGE

7 The theoretical knowledge syllabus for the IR(A) is set out in circular CIR/FCL 14. An approved modular IR(A) course shall comprise at least 200 hours (1 hour = 60 minutes instruction) of instruction, which can include classroom work, inter-active video, slide/tape presentation, learning carrels, computer based training, and other media as approved by the Authority, in suitable proportions. Approved distance learning (correspondence) courses may also be offered as part of the course at the discretion of the Authority

THEORETICAL KNOWLEDGE EXAMINATION

8 An applicant shall demonstrate a level of knowledge appropriate to the privileges of an IR(A) in accordance with the procedures in circular CIR/FCL 14.

FLYING TRAINING

9 A single-engine IR(A) course shall comprise at least 50 hours instrument time under instruction of which up to 20 hours may be instrument ground time in a FNPT I, or up to 35 hours in a flight simulator or FNPT II With the agreement of the approving Authority not more than 10 hours of FNPT II or flight simulator instrument ground time may be conducted in a FNPT I.

10 A multi-engine IR(A) course shall comprise at least 55 hours instrument time under instruction of which up to 25 hours may be instrument ground time in a FNPT I, or up to 40 hours in a flight simulator or FNPT II. With the agreement of the approving Authority not more than 10 hours of FNPT II or flight simulator instrument ground time may be conducted in a FNPT I. The remaining instrument flight instruction shall include at least 15 hours in multi-engine aeroplanes.

11 The holder of a single-engine IR(A) who also holds a multi-engine type or class rating wishing to obtain a multi-engine IR(A) for the first time shall satisfactorily complete a course at an approved FTO/TRTO comprising at least five hours instruction in instrument flying in multi-engine aeroplanes, of which 3 hours may be in a flight simulator or FNPT II.

12 The holder of a CPL(A) issued in accordance with ICAO or of a Course Completion Certificate for the Basic Instrument Flight Module may have the total amount of training required in paragraphs 9 or 10 above reduced by 10 hours. The total instrument flight instruction in aeroplane shall comply with paragraph 9 or 10, as appropriate.

13 The flying exercises up to the IR(A) skill test shall comprise:

(a) Basic Instrument Flight Module:

Procedure and manoeuver for basic instrument flight covering at least :

- Basic instrument flight without external visual cues
  - Horizontal flight
  - Climbing
  - Descending
  - Turns in level flight, climbing, dscending
- Instrument pattern
- Steep turn
- Radionavigation
- Recovery from unusual attitudes
- Limited panel
- Recognition and recovery from incipient and full stalls

(b) Procedural Instrument Flight Module:

(1) pre-flight procedures for IFR flights, including the use of the flight manual and appropriate air traffic services documents in the preparation of an IFR flight plan;

(2) procedure and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:

- transition from visual to instrument flight on take off
- standard instrument departures and arrivals
- en route IFR procedures
- holding procedures
- instrument approaches to specified minima
- missed approach procedures
- landings from instrument approaches, including circling;

(3) in flight manoeuvres and particular flight characteristics;

(4) if required, operation of a multi-engine aeroplane in the above exercises, including operation of the aeroplane solely by reference to instruments with one engine simulated inoperative and engine shut down and restart (the latter exercise to be carried out at a safe altitude unless carried out in a flight simulator or FNPT II).

SKILL TESTS

14 (a) On completion of the related flying training and completion of the experience requirements as stated in article 45 of the Royal Decree of 4 March 2008, the applicant shall take the IR(A) skill test on either a multi-engine aeroplane or a single-engine aeroplane in accordance with circular CIR/FCL 10.

(b) On completion of the course mentioned in paragraph 11 above, the applicant shall take a skill test on a multi-engine aeroplane in accordance with circular CIR/FCL 10.

Appendix 1 to JAR–FCL 1.285
ATPL(A) - Modular theoretical knowledge course
(See JAR–FCL 1.285)
(See Appendix 1 to JAR–FCL 1.055)
(See AMC FCL 1.470(a))

1 The aim of this course is to train pilots who have not received the theoretical knowledge instruction during an integrated course, to the level of theoretical knowledge required for the ATPL(A).

2 An applicant wishing to undertake an ATPL(A) modular course of theoretical knowledge instruction shall be required under the supervision of the Head of Training of an approved FTO to complete 650 hours (1 hour = 60 minutes instruction) of instruction for ATPL theory within a period of 18 months. An applicant shall be the holder of a PPL(A) issued in accordance with ICAO Annex 1.

Holders of a CPL(A)/IR may have the theoretical instruction hours reduced by 350 hours.

Holders of a CPL(A) may have the theoretical instruction hours reduced by 200 hours and holders of an IR may have the theoretical instruction hours reduced by 200 hours.

The instruction may also be given at an approved organisation as set out in circular CIR/FCL 5 relevant to theoretical knowledge instruction only, in which case the Head of Training of that organisation shall supervise the course.

3 The FTO shall ensure that before being admitted to the course the applicant has a sufficient level of knowledge of Mathematics and Physics to facilitate an understanding of the content of the course.

4 The instruction shall cover all items in the relevant syllabi set out in circular CIR/FCL 12. An approved course should include formal classroom work and may include the use of such facilities as inter-active video, slide/tape presentation, learning carrels, computer based training and other media as approved by the Authority. Approved distance learning (correspondence) courses may also be offered as part of the course at the discretion of the Authority.