



National Flight Centre
PPL Exam Preparation
Theoretical Knowledge Course
for
EASA PPL(A) Examinations

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Introduction

Welcome to the National Flight Centre's Private Pilot's Licence (PPL) Aeroplane(A) Exam Preparation Theoretical Knowledge Course.

To be eligible to be recommended for the Flight Test for a PPL(A) the student is required to complete Irish Aviation Authority (IAA) theoretical knowledge examinations in 9 subjects in addition to successfully completing a course of flight training. NFC runs an eight-day PPL Ground School Course over 4 weekends to prepare students for the conduct of safe flights as a PPL(A) pilot in command and to prepare for these Exams. For students unable to commit to the PPL Ground School Course, NFC introduces the PPL(A) Exam Preparation Theoretical Knowledge Course, as a five-day course of instruction to support a student's preparation for the IAA theoretical knowledge examinations.

The National Flight Centre in partnership with Pooleys utilises the Air Pilot Manual series of PPL Textbooks, available in electronic and printed format, to prepare students for the IAA PPL(A) theoretical knowledge examinations.

It is recommended that any applicant for the PPL(A) Exam Preparation Theoretical Knowledge Course will have completed a minimum of 10 hours of flight training, Long Briefs 1 to 14 and that each student will have familiarised themselves with the textbooks prior to commencement of the course.

The pages that follow set out the National Flight Centre's PPL(A) Exam Preparation Theoretical Knowledge Course.

The Aim of the Course and the Student's Pre-Preparation

The aim of the NFC PPL(A) Exam Preparation course and the students pre-preparation is to build student knowledge and understanding of the 9 x PPL(A) subjects to prepare for the IAA PPL(A) theoretical knowledge examinations in accordance with AMC1 FCL.210; FCL.215. All theoretical knowledge instruction is conducted in the English language and is divided into subjects related to the current examination system.

The Course will:

- Build on the foundation of knowledge from the student's pre-course reading assignments, tutorials and the use of the Moodle platform to teach and assess the 9 subject areas for the PPL(A) theory syllabus.
- Develop in the student an understanding of the principles of threat and error management (TEM).
- Develop in the student an understanding of the connection between various elements of theoretical knowledge and the practical aviation situations which s/he may experience.
- Achieve the required standard to be approved to sit the IAA theoretical knowledge exams for the award of a PPL(A) by passing the NFC mock Exams.

Duration of the Course

The NFC PPL(A) Exam Preparation Theoretical Knowledge Course is an intensive five-day learning course.

Training Syllabus

This document details the National Flight Centres PPL(A) Theoretical Knowledge course and is formatted in accordance with AMC1 ORA.ATO.230(A) part D. The syllabus is determined by EASA Annex to ED Decision 2011/016/R AMC1 FCL.210; FCL.215 and consists of theoretical knowledge instruction to the EASA PPL(A) knowledge level.

Pre-entry Requirements

An applicant for the NFC PPL(A) Exam Preparation Theoretical Knowledge course shall:

- Have attained the age of 16 years
- Have completed a minimum of 10 hours of flight training with Long Briefings 1 to 14 complete.
- Have completed the required Pre-Course Reading Assignments
- Be able to read, write and orally communicate in the English language.
-

Prior to commencement, a non NFC PPL student beginning a course must provide the following:

- A completed course application form

- An acceptable form of photographic identity. A passport is preferable. An Irish Public Services Card (PSC), Irish Driving licence, Current ID of a serving member of the Irish government public service or statutory body or Current ID of a serving member of An Garda Síochána (Irish police) or Irish military is also acceptable.
- Provide NFC with a copy of their current Class 2 medical*
- Pay the relevant course fee, after course acceptance.

*A class 2 medical is not required to complete the theoretical knowledge course or Exams. However, NFC strongly advises that students do not undertake flight or theoretical knowledge training without ensuring they can hold the required medical. NFC will accept a student onto a theoretical knowledge course without a current medical, but it will be at the students own risk.

Credits from Previous Experience

Not applicable.

Training Materials

The National Flight Centre in partnership with Pooleys utilises the Air Pilot Manual series of PPL Textbooks, available in electronic and printed format, to prepare students for the IAA PPL(A) theoretical knowledge examinations. The textbooks must be purchased separately by the student and the digital edition can be purchased at: <https://pooleysapp.com/>

Pooley's Air Pilot's Manuals

Volume	Title	Edition*	ISBN-13
1	Flying Training (for Reference Only)	14 th Edition 2020	978-1-84336-215-9
2	Air Law & Meteorology	16 th Edition March 2020	978-1-84336-240-1
3	Air Navigation	8 th Edition October 2020	978-1-84336-233-3
4	The Aeroplane Technical	8 th Edition January 2020	978-1-84336-216-6
6	Human Performance & Limitations and Operational Procedures	3 rd Combined Edition 2018	978-1-84336-234-0
7	Communications	6 th Edition 2019	978-1-84336-226-5

*Note: NFC recommends that where possible students purchase the most recent edition of the Air Pilot Manual.

Additional Training Materials

Students will be required to purchase additional training materials to for use on the course and in their subsequent flight training. These additional items are listed in the table below.

Item	Description
CRP-1 Computer	Circular slide Rule with Wind Triangle for Flight Planning Calculations
Ireland Aeronautical Chart	Aeronautical Chart ICAO 1:500,000 Ireland
Plotter	Clear Plastic Aviation Plotter or Protractor & Scale Ruler
Map Marking Pens	Permanent Lumocolour Markers

Subject to availability all these items can be purchased from the Operations Desk at NFC.

Moodle and Flight Logger

Students can access additional learning material to support their study on the NFC Moodle Platform. Cessna Pilot Operating handbooks can be accessed on the documents section of FlightLogger, providing additional material to support Aircraft General Knowledge and Flight Planning & Performance training.

PPL Mock Examinations

NFC run PPL(A) Mock Examinations prior to the closing date for applications for each IAA PPL(A) Examination Sitting. Students are required by the Authority to pass a Mock Examination to assess their knowledge in each subject prior to being approved by the CTKI or Authorised Signatory to sit IAA PPL(A) exams. The pass mark set by the Authority for these Mock Examinations is 85%. A student who fails to achieve the pass standard in the Mock Examinations will not be signed off for the IAA theoretical examinations in the relevant subject(s). No exceptions can be made to this requirement.

IAA PPL(A) Examinations

The IAA will plan to schedule 8 x PPL(A) Examination Sitzings each year which take place at its Dublin Headquarters, The Times Building, D'Olier Street. Subject to successful completion of PPL(A) Mock examinations with NFC, students can apply to sit PPL(A) Examinations with the IAA. Exam Applications are processed and approved by the CTKI or Authorised Signatory and forwarded to the IAA. Examination fees are paid directly to the IAA by the student. The pass mark in an IAA EASA ATPL(A) Examination is 75%.

Full details can be found on the IAA website at [https://www.iaa.ie/personnel-licensing/pilot-licences-\(eu-regulations\)/examination-dates---multiple-choice-questions-\(mcq\)/ppl-examinations](https://www.iaa.ie/personnel-licensing/pilot-licences-(eu-regulations)/examination-dates---multiple-choice-questions-(mcq)/ppl-examinations).

IAA PPL(A) Examinations

Exam Serial	Exam Subject	Exam Time	Number of Questions
P10	Air Law	00:30 Hour	20 Questions
P20	Human Performance & Limitations	00:30 Hour	20 Questions
P30	Meteorology	01:00 Hour	20 Questions
P40	Communications	00:30 Hour	20 Questions
P50	Principles of Flight	00:30 Hour	20 Questions
P60	Operational Procedures	00:30 Hour	20 Questions
P70	Flight Performance & Planning	01:00 Hour	20 Questions
P80	Aircraft General Knowledge	00:30 Hour	20 Questions
P90	Navigation	01:00 Hour	20 Questions

The Syllabus to be used for PPL examinations may be found in AMC1 FCL.210; FCL.215 to Part-FCL

Training Programme

The Lesson Plan for instruction is tabulated below. Subject order is based on a logical flow which sequences each subject in order of their relevance to one another. Instruction will run from 0900 - 1700 each day unless otherwise specified. For a detailed description of the lesson content please refer to AMC1 FCL.210 Subpart C.

Day 1 – Air Law and Operational Procedures:

Time	Air Law & ATC Procedures	Hours Instruction
0900 - 0945	Introduction, Annex 1, 2: Licensing, VFR Rules of the Air	00:45
0945 - 1030	Annex 7,8: Aircraft Registration, Airworthiness	00:45
1030 – 1115	Annex 11,12: Air Traffic Management, Search & Rescue	00:45
1115 - 1200	Annex 13,14: Accident Investigation, Aerodromes.	00:45
1200 - 1300	Break.	01:00
1300 – 1345	Annex 15, 17: AIS, Security	00:45
Time	Operational Procedures	Hours Instruction
1430 – 1515	Annex 6: General Requirements, Fire & Smoke, Emergency Landing	00:45
1515 - 1600	Noise abatement, Runway contamination.	00:45
1600 - 1700	Wake Turbulence, Windshear	00:45

Day 2 – Communications and Meteorology:

Time	Communications	Hours Instruction
0900 - 0945	Course Overview	00:45
Time	Meteorology	Hours Instruction
1000 - 1030	Introduction, The Atmosphere.	00:30
1030 - 1100	Air Temperature, Air Pressure.	00:30
1100 – 1130	Density, ISA	00:30
1130 - 1200	Wind	00:30
1200 - 1300	Break	01:00
1300 – 1345	Cloud, Thunderstorms	00:45
1345 - 1500	Air Masses & Fronts	01:15
1500 – 1530	Icing, Visibility	00:30
1530 - 1600	Reports & Forecasts	00:30

Day 3 – Aircraft General Knowledge and Principles of Flight:

Time	Aircraft General Knowledge	Hours Instruction
0900 - 1000	Airframes & Systems	01:00
1000 – 1100	Engines	01:00
1100 – 1200	Electrics	01:00
1200 - 1300	Break	01:00
Time	Principles of Flight	Hours Instruction
1300 – 1330	Introduction, Lift Theory Basics, 2-D flow.	00:30
1330 - 1400	The Coefficients, The Forces	00:30
1400 – 1430	3-D Flow, Drag	00:30
1430 - 1445	Lift Augmentation, Ground Effect.	00:15
1445 – 1500	Break	00:15
1500 – 1530	The Stall	00:30
1530 – 1600	Stability	00:30
1600 – 1630	Limitations & Contamination	00:30
1630 - 1700	The Propeller	00:30

Day 4 – General Navigation:

Time	General Navigation	Hours Instruction
0900 - 0930	Introduction, The Solar System.	00:30
0930 - 1000	Time.	00:30
1000 – 1030	Direction.	00:30
1030 – 1100	Distance.	00:30
1100 – 1140	Magnetism & Compass	00:40
1140 -1200	Charts 1	00:20
1200 - 1300	Break	01:00
1300 – 1325	Charts 2	00:25
1325 – 1410	Dead Reckoning	00:45
1410 - 1440	CRP-1	00:30
1440 - 1500	RNAV	00:20
Time	Human Performance & Limitations	Hours Instruction
1530 – 1700	Course Overview	01:30

Day 5 – Flight Planning & Performance:

Time	Flight Planning	Hours Instruction
0900 – 0930	Introduction, Mass & Balance, Flight Planning & Performance.	00:30
0930 - 1000	Mass limitations, CoG limitations	00:30
1000 – 1030	Aircraft Documentations.	00:30
1030 - 1100	Determining CoG Position, Load and Trim Sheets.	00:30
1100 – 1130	Introduction to Performance	00:30

1130 - 1200	SE Aeroplanes	00:30
1200 - 1300	Break	01:00
1300 – 1330	Take-off & Landing Performance	00:30
1330 - 1400	Climb & Cruise Performance	00:30
14:00 – 16:00	PLOG, Route Planning & Flight Plan	02:00

Conclusion

Thank you for choosing National Flight Centre's PPL(A) Exam Preparation Theoretical Knowledge Course to prepare you for your IAA PPL(A) Examinations. The Training Team at NFC wish you all the best with your studies. If you have any query relating to the course please contact the CTKI at fto@nfc.ie.