Pilot Training

EC120 Transition Training Course

5 Days / 1 Week

Ground School	**17 Hours (3 Days)**
Sim	**0 Hours**
Flight	**3 Hours per Student**

Rev. 2.1

AIRBUS

SCOPE:

This course will provide a complete Initial Pilot Ground School on the H120B Helicopter. Classroom instruction, the Pilot Training Manual, and various handouts, will provide complete information for a thorough understanding of the aircraft and its engine and related systems, with emphasis on Flight Manual usage including Normal and Emergency Procedures for the various aircraft systems and the aircraft's Limitations. Practical exercises will be conducted covering the Flight Manual information on Limitations, Performance Data, and Weight & Balance. Successful completion will be based upon two examinations: A Limitations Quiz & the Final Exam covering overall course content.

OBJECTIVE:

To instill the fundamental knowledge required to conduct safe ground and pre-flight operations of the H120B Helicopter. Upon successful completion of this course and the H120B Transition Ground School final exam, the student should be able to conduct operations, within the limits of Aircraft Ground School, safely and efficiently.

COURSE PREREQUISITES:

Acceptance into this course is based upon these requirements:

- A current FAA issued Helicopter Pilot Certificate
- Valid Medical Certificate

In special circumstances any of the above requirements may be waived with the approval of Airbus Helicopters, Inc.'s Chief Flight Instructor.

NOTICES:

Airbus Helicopters, Inc. reserves the right to notify customer of the occurrence of any force majeure condition that, in its sole discretion, is the cause of excusable delay. In the event of a force majeure condition, the services and/or classes will be extended or, if required, rescheduled for the first available opening. Airbus Helicopters, Inc. will not be liable for any costs, claims, or damages to customer or its employees arising from delays or interruptions caused by any force majeure condition.

The stated duration of the course is based on two student pilots per course. Additional student pilots may change the duration of the flight portion of the course. Airbus Helicopters Inc. instructor pilots fly a maximum of 4.5 hours per day.

Ground School 17 hours

Day 1

Introduction and General Aircraft Overview 1.0 hours

SCOPE: This block of instruction will cover registration and orientation to the course, an explanation of the course outline, Airbus Training School Operations and a general overview of the helicopter. The general overview will include the main characteristics, description, main dimensions, airframe reference points, the engine, the main components and systems, the cockpit layout of the helicopter, the Vehicle and Engine Multi-function Display, and the helicopter operating publications. A Review Questions segment will be conducted on the material presented.

Flight Manual and General Limitations 0.5 hours

SCOPE: This block of instruction will cover an introduction to the rotorcraft flight manual and general aircraft limitations. A Review Questions segment will be conducted on the material presented.

Structure 0.5 hours

SCOPE: This block of instruction will cover the basic structure of the helicopter including the main structure, the aft structure, doors, windows, cowlings, firewalls, fairings, the landing gear, and the cabin anti-vibrators. A Review Questions segment will be conducted on the material presented.

Main Rotor Drive System 0.5 hours

SCOPE: This block of instruction will cover the functions of the main rotor drive system, the engine to main gear box coupling and coupling shaft, the main gearbox attachment and suspension, the main gearbox components and lubrication system to include the indicating system, air circulation, the three main gear box caution / warning lights, and the rotor brake components and operation. A Review Questions segment will be conducted on the material presented.

Day 1 Continued

Main Rotor 1.0 hours

SCOPE: This block of instruction will cover the main rotor, the main rotor blades, the Spheriflex main rotor hub, the main rotor control assembly, the rotor speed monitoring and indicating system, the aural warnings and the main rotor and main transmission limitations. A Review Questions segment will be conducted on the material presented.

Tail Rotor Drive System and Tail Rotor 0.5 hours

SCOPE: This block of instruction will cover the tail rotor drive system and the tail rotor drive shaft, the tail gear box, the tail rotor, and tail rotor control failure. A review Questions segment will be conducted on the material presented.

Electrical System 1.0 hours

SCOPE: This block of instruction will cover the direct current power sources, power system components and their functions, layout of the power system components, direct battery power, installation of a second battery, power distribution to consumer circuits, external power units, and the systems associated malfunctions and failures as well as caution / warning lights. A Review Questions segment will be conducted on the material presented.

Flight Controls 0.5 hours

SCOPE: This block of instruction will cover the cyclic and collective controls and the tail rotor flight controls. A Review Questions segment will be conducted on the material presented.

NOTE: At the end of the first day, the Instructor will pass out an open book Limitations Sheet to be completed by the student that night, and corrected in class the next morning. The student will retain the corrected Limitations Sheet.

Day 2

Hydraulic System 1.5 hours

NOTE: Before this block of instruction begins, a closed book Limitations Quiz will be administered. The Instructor will retain the scored Limitations Quiz, which will be placed in the student's permanent file.

SCOPE: This block of instruction will cover an overview of the principles of the hydraulic system, it's components and their location, the hydraulic power pack, system functions, and the hydraulic system failures and warning light. Also covered are the servocontrols and their various phases of operations including hardover and servojam procedures. A Review Questions segment will be conducted on the material presented.

Fuel System 1.0 hours

SCOPE: This block of instruction will cover the fuel system components and their functions, the location and characteristics of the fuel system components, fuel system operation, monitoring, controls and indicators, and the associated caution lights. A Review Questions segment will be conducted on the material presented.

VEMD, Flight Instruments and Cockpit 1.5 hours

SCOPE: This block of instruction will consist of a cockpit overview, the indicating and control panels, flight controls, the Lighting and Ancillary Control Unit, the Ancillary System Unit, audio warnings, the Central Warning Panel, and the Vehicle and Engine Multi-function Display including malfunctions. Furthermore, certain flight instruments will be covered including a description of the pitot static system, the principle of operation and the system components, as well as the pitot head characteristics and its heating system, and the location of the pitot static system controls and instruments. Additionally, the fire extinguisher and the Emergency Locator Transmitter are covered. A Review Questions segment will be conducted on the material presented.

Interior and Exterior Lighting 0.5 hours

SCOPE: This block of instruction will cover the servo actuators, the yaw load compensator, an overview of the principles of the hydraulic system, components and their location, system functions, and the hydraulic system operation. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Day 2 continued

Heating, Demisting and Air Conditioning 0.5 hours

SCOPE: This block of instruction will cover the heating and ventilation system, the VEMD P2 Advisory Light, and the air conditioning system including the P2 TEMP caution light. A Review Questions segment will be conducted on the material presented.

Day 3

Engine 1.0 hours

SCOPE: This block of instruction will cover the Arrius 2F power plant, engine mounting, the engine lubrication system and oil cooling, the lubrication indicating system, the engine monitoring system, the engine fuel system components and operation, the fuel filter, and the fuel injection system. A Review Questions segment will be conducted on the material presented.

Engine 1.5 hours

SCOPE: This block of instruction will cover the engine controls, engine operation, the twist grip control, the anticipator control, the emergency fuel shut-off, and the engine compartment fire detection system. A Review Questions segment will be conducted on the material presented. Following the Review Questions, the student is presented with the entire engine emergency procedures, engine associated limitations, audio warnings, and malfunctions; and all of the associated caution / warning lights, as well as their meaning, & the proper corrective actions to be taken by the pilot.

Flight Manual – Sections 5 & 6 - Performance Charts and Weight & balance 1.0 hours

SCOPE: This block of instruction will cover various Performance Charts and the Weight & Balance Charts, as well as their usage and their application.

Flight Manual – Sections 2 & 3 - Limitations and Emergency Procedures & Caution / Warning Panel Review 1.5 hours

SCOPE: This block of instruction is a review of previously presented material and will cover specific aircraft limitations, the emergency procedures & caution / warning panel lights, as well as their meaning, & the proper corrective actions to be taken by the pilot.

Day 3 continued

Flight Manual – Section 4 - Starting and Checks 0.5 hours

SCOPE: This block of instruction will cover the starting sequence, what to look for, what checks are to be performed, how to accomplish these checks, and the 'whys' behind these checks. Grand Prairie Municipal Airport information is available, if appropriate.

Final Exam 2.0 hours

SCOPE: This block of instruction will include administering an open-book, multiple-choice Final Exam, with emphasis on use of the flight manual to obtain information, knowledge of basic aircraft systems, and the practical use of charts associated with the flight manual. A maximum time limit of one hour is permitted for administering the Final Exam. A critique will be conducted to discuss the exam questions, to answer any student questions, and to evaluate the course as well as the course presentation. The scored Final Exam is retained by the Instructor and placed in the student's permanent file.

Day 4 & 5

Flight Training 3 hours

Flight 1 1.5 hours

Start-up
Ground maneuvers
Flight maneuvers
Power check
Hydraulic failures
Hover autos
Intro to Straight-in autos

Flight 2 1.5 hours

Start-up
Ground and Flight maneuvers
Hydraulic failures
Hover, hover taxi autos
Straight-in, 180 autos