



## Pilot Training

# H145 Helionix<sup>®</sup> / BK117 D2 Transition Training Course

**2 or 3 Weeks** (based on number of students)

<b>Ground School</b>	<b>53 Hours</b>
<b>Sim</b>	<b>0 Hours</b>
<b>Flight</b>	<b>7.5 Hours per Student</b>



## **SCOPE:**

This course will provide a complete Initial Pilot Ground School on the H145 Helionix<sup>®</sup> 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 H145 Helionix<sup>®</sup> Helicopter. Upon successful completion of this course and the H145 Helionix<sup>®</sup> 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

53 hours

### Introduction and General Overview

SCOPE: This block of instruction will cover registration and orientation to the course, an explanation of the course outline, Airbus Helicopters Inc. 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, malfunctions, and the helicopter operating publications.

### Fuselage

SCOPE: This block of instruction will cover the basic structure of the helicopter including the main cabin, the floor structure, aft structure, doors, windows, cowlings, and firewalls.

### HELIONIX

SCOPE: This block of instruction will cover introduction and overview of the Flight Control Display System, First Limitation Indications for AEO and OEI, and VMS Parameters to include description of all components (AMCs, MFDs, etc.), normal pilot operations, emergencies, and pilot trouble shooting. This section will include an instructor led practical exercise in startup/shut down procedures utilizing the HELIONIX Avionics Troubleshooting System (HATS).

### AFCS

SCOPE: This block of instruction will consist of an Automatic Flight Control System overview, to include description of all components (AMCs, APCP, etc.), normal pilot operations, emergencies, and pilot troubleshooting. This section will include an instructor led practical exercise in Autopilot functionality, operation (IFR/VFR), and emergency procedures utilizing the HELIONIX Avionics Troubleshooting System (HATS).

### Power Plant

SCOPE: This block of instruction will cover the aircraft fuel system components and operation, the TURBOMECA Arriel 2E power plant, engine mounting, engine operation, fuel filters, and the fuel injection system, the EECU, the emergency fuel shut-off, the engine monitoring system, the engine lubrication system and oil cooling, the lubrication indicating system, and the engine compartment fire detection system. . This section will include an instructor led practical exercise in basic AEO/OEI emergencies utilizing the HELIONIX Avionics Troubleshooting System (HATS).





## **Landing Gear**

SCOPE: This block of instruction will cover the landing gear components and their functions, the mounting and characteristics of the cross tubes and skids.

## **Flight Controls**

SCOPE: This block of instruction will cover the cyclic and collective controls and the tail rotor flight controls, to include the hydraulic system and SAS systems and associated normal and emergencies procedures.

## **Tail Unit**

SCOPE: This block of instruction will cover the tail boom, tail rotor drive system, the tail rotor drive shaft, the tail gearbox, the Fenestron, and tail rotor control failure.

## **Lifting System**

SCOPE: This block of instruction will cover the functions of the main rotor drive system, the main gearbox and its components and lubrication system to include the indicating system, air circulation, main gear box caution / warning lights, the rotor brake components and operation. The main rotor, the main rotor blades, the main rotor control assembly, the rotor speed monitoring and indicating system, the aural warnings and the main rotor and main transmission limitations.

## **Standard Equipment**

SCOPE: This block of instruction will cover crew/passenger seats, heating and ventilation, instrument cooling, and aircraft lighting systems.

## **Electrical System**

SCOPE: This block of instruction will cover the direct current power sources, power system components and their functions, layout of the power system components, power distribution, external power units, and the systems associated malfunctions and failures as well as caution / warning lights.

## **Avionics**

SCOPE: Detailed description of avionics main components, intercom system, transponder, and GPS. This section includes a basic overview of the Garmin GTN 750.



## **Flight Manual**

SCOPE: This block of instruction will cover the flight manual in depth including normal, emergencies, performance planning, weight and balance, and optional equipment.

## **Final Exam and Course Critique**

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 four hours 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.



## **Flight Training**

7.5 hours

### **Flight 1**

1.5 hours

Normal Procedures IAW grade sheet  
Modes of stabilization  
Optional Maneuvers IAW grade sheet

### **Flight 2**

1.5 hours

Optional Maneuvers IAW grade sheet  
OEI Operations

### **Flight 3**

1.5 hours

FADEC Fail / FADEC Emergencies  
Tail Rotor Malfunctions  
Autorotation

### **Flight 4**

1.5 hours

IFR flight, IIMC Procedures, LNAV, LPV, ILS

### **Flight 5**

1.5 hours

Review and Practice previous maneuvers  
Engine Ventilation, EPC, Quick Start, etc.