Pilot Training

H145 Helionix®
Instructor Orientation Training Course

5 Days / 1 Week

Ground School	**18 Hours (2.5 Days)**
Sim	**0 Hours**
Flight	**Up to 4 Hours per Student**

Rev. 2.1

AIRBUS

SCOPE:

This course will provide a comprehensive Instructor Pilot Course on the H145 Helionix®. Classroom instruction, combined with handouts, will provide complete information for a thorough review and overall understanding of the aircraft in order to serve as an Instructor in the H145 Helionix®. This review will cover normal procedures, aircraft limitations, and emergency procedures. Upon completion of the course each student will obtain a combination Instructor Pilot and Recurrency Certificate.

OBJECTIVE:

Upon completion of this course the applicant is qualified to perform the Instructor Pilot maneuvers specific to the H145 Helionix® helicopter.

COURSE PREREQUISITES:

Acceptance into this course is based upon these requirements:

- A current FAA issued Helicopter Pilot Certificate or equivalent
- Valid Medical Certificate
- Current Helicopter Experience (Perform PIC duties within preceding 90 days of course start date)
- Completion of H145 Airbus or equivalent course in previous 5 Years
- Minimum of 50 operational hours in a H145 Helicopter

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.

0. WELCOME AND IN-PROCESSING — CL HRS: 0.5

1. **REFERENCES**: None

2. **SCOPE**: This block of instruction will cover registration, introduction, Contact info, Airbus Website, classroom procedures, miscellaneous, Goals, Completion Standards, What this course does not cover, Course Hierarchy, Course Content, Responsibilities.

3. **COMPLETION STANDARDS:** All required paperwork provided and validated by the instructor

1. HELIONIX ® — CL HRS: 2.0

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Instrument Panel, Components, MFD – Keys and Knobs, MFD – Main Display Formats, MFD – FND Display (Pilot/CoPilot), MFD – Synthetic Vision System, MFD – NAVD Displays, MFD – VMS Displays, MFD – DMAP Display, MFD – MISC Display, MFD – Default Configuration, MFD – Single MFD Failures, MFD – Dual MFD Failures, Helionix® – Alerting System, Alerting – Master List Principles, Alerting – Audio Principles, Alerting – Acknowledgement, Alerting – Degradation, Alerting – Warning Unit, Helionix® – Tests, VMS – Displays, Limitations, Normal Procedures, Emergency Procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the Helionix system including AMC architecture, MFD roles, normal functioning as well as typical pages, status information, failure modes, limits, normal procedures, and emergency procedures.

2. AVIONICS — CL HRS: 1.0

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Avionics Overview, Typical Antennas , Avionics Upper Deck , Avionics Consoles, Avionics Upper Deck Cooling, Intercom, VHF AM Communication , ELT, VOR, ILS, Marker Beacon, DME, Transponder, FMS (GPS), Radar Altimeter, Barometic Altitude, Decision Altitude, Integrated Electronic Stand-by Instrument, Limitations, Normal Procedures, Emergency Procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the normal use of the communication and navigation systems.

3. AUTOPILOT **CL HRS: 1.5**

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover, Autopilot – SAS / AFCS Overview, Autopilot – Backup-SAS, AFCS – Components, AFCS – Controls, Instrument Panel, FDS – FND Status Information, FDS- FND AFCS Strip, FDS – FND/NAVD Nav Coupling, FDS - FND Master List Messages, FDS – VMD AFCS Status, AFCS – Preflight Test Overview, AFCS – AP/BKUP CUT Test, AFCS – Engagement , AFCS – Recovery, AFCS – Automatic Stick Centering, AFCS – Modes and Functions, AFCS – Flight Protections, Limitations, Normal Procedures, Emergency Procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the H145 FDS/AFCS inclduing it use, display interreatation, including relevant limits, normal procedures, and emergency procedures.

4. FUSELAGE

CL HRS: 0.5

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Fuselage – General, Airframe Structure, Cabin Structure, Drain System, Windshields / Windows, Doors, Cowlings, Handling, Parking / Mooring, Monitoring, Emergency Procedures

3. **COMPLETION STANDARDS**: The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the general layout of the fuselage and knowledge of the limits, normal, and emergency procedures.

5. FLIGHT CONTROLS **CL HRS: 0.5**

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Main Rotor Controls, Parallel Actuators, Tail Rotor Controls, Hydraulic System, Main Rotor Actuators, Tail Rotor Actuators, Monitoring and Indication, Testing, Limitations, Normal procedures, Emergency procedures.

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the flight control systems, monitoring, testing, limits, normal procedures, and emergency procedures.

6. TAIL UNIT **CL HRS: 0.5**

1. **REFERENCES**: RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Overview, Structure, Drive, Control, Monitoring, Limits & Normal Procedures, Emergency Procedures

3. **COMPLETION STANDARDS**: The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the trail rotor limitations, drive shaft, gearbox, lubrication system, control, and operation of the trail rotor including limits, normal, and emergency procedures.

7. LIFTING SYSTEM — CL HRS: 0.5

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE:** This block of instruction will cover Main transmission, Lubrication system, Main rotor system, Rotor blades, Rotor brake system, Mast Moment system, Monitoring and Indication , Limitations, Normal procedures, Emergency procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the drive, lubrication systems, monitoring and emergency procedures associated with the MGB, rotor brake, and mast moment system.

8. STANDARD EQUIPMENT — CL HRS: 0.5

1. **REFERENCES:** RFM Sections 2, 3, 4, 7 and 9.2

2. **SCOPE**: This block of instruction will cover Crew Seating, Passenger Seating, Ventilation, ECS, Lighting, Pulsed Chip Detector (Fuzz Burner), Inlet Barrier Filter

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of normal use and testing of the standard equipment including relevant limits, normal procedures, and emergency procedures.

9. LANDING GEAR — CL HRS: 0.5

1. **REFERENCES**: RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Landing Gear – General, Steps & Hydraulic Dampers, Ground Clearance Dimensions, Limitations, Normal procedures, Emergency procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the landing gear system including limiations, basic operations, monitoring, and emergency procedures.

10. POWERPLANT — CL HRS 1.0

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Power Plant Operation, Fire Warning & Extinguishing System, Engine Fuel System, Airframe Oil System, Engine Oil System, Engine Control System, Engine Monitoring / Indication, Engine Operations, Limitations, Normal Procedures, Emergency Procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the powerplant system including limits, normal procedures, and emergency procedures.

11. FUEL

CL HRS: 1.0

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7.

2. **SCOPE**: This block of instruction will cover Fuel System – Description, Fuel System – Tanks, Fuel System – Vents, Fuel System – Supply Lines, Fuel System – Equipment Plates, Fuel System – Fuel Pumps, Fuel System – Jet Pump, Fuel System – Fuel Pump Control, Fuel System – Fuel Pump Monitoring Fuel System – Shut-Off Valves, Fuel System – Shut-Off Valve Monitoring, Fuel System – Fuel Quantity Transmitters, Fuel System – Fuel Quantity Description, Fuel System – Fuel Quantity Indication, Fuel System – Fuel System Monitoring, Limitations, Normal Procedures, Fuel Warning, Cautions & Procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the fuel system including limits, normal procedures, and emergency procedures.

12. ELECTRIC POWER

CL HRS: 1.0

1. **REFERENCES:** RFM Sections 2, 3, 4, and 7

2. **SCOPE**: This block of instruction will cover Main Components, Equipment Location, Control Devices, System Overview, Consumer Buses, Battery System, Starter/Generator System, EPU, BUS TIE System, Operations, Limitations, Normal procedures, Emergency procedures

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot can demonstrate knowledge of the limits, normal, and emergency procedures associated with the electrical systems.

13. EXAM

CL HRS: 1.0

1. **REFERENCES:** RFM and TM

2. **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 the Training Manual as a reference. A maximum time limit of one hour is permitted for administering the Final Exam

3. **COMPLETION STANDARDS:** The pilot will have successfully completed the lesson when the pilot achieves an 70% on the exam. If passed, all incorrect questions will be addressed to ensure a full understanding of the information.

Instructor Pilot Maneuver Review

SCOPE: This block of instruction will cover the maneuvers required to be completed by the Student IP. Each maneuver will be discussed in detail concerning techniques, helpful hints, and common situations to avoid. This section of the course focuses on single engine failure (OEI) training, FADEC malfunctions, tail rotor malfunctions, and autorotations.

Flight Training

Up to 4 Hours

Day 4 & 5

Flight 1 Right Seat Up to 2.0 Hours

Review emergency procedures
Limitations review
OEI
HELIONIX
T/R Malfunctions
FADEC Failures
Autorotation

Flight 2 Left Seat Up to 2.0 Hours

OEI
T/R Malfunctions
FADEC Failures
Autorotation
HELIONIX