



HELI  **COLLEGE**
CANADA TRAINING INC.

Langley, British Columbia

Ground School Course Calendar

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Heli-College Canada Ground School Calendar

How to use this Calendar

This Calendar contains the required courses for each of our flight training programs. To determine the Ground School courses for your particular program, simply cross reference the summary below with the course descriptions contained in the following pages. Actual scheduling and instructor assignments may vary depending on the date of enrolment.

Program Requirements

Program Content	Total Ground School
Private Helicopter Licence Program	144 hours
COMM 100, ENGN 105, ENGN 120, INST 200, METR 100, NAVI 100, NAVI 120, NAVI 200, REGS 100, REGS 200, SAFE 200, SAFE 300, THER 320.	
Commercial Helicopter Licence Program	278 hours
In addition to those courses listed for Private Helicopter Licence :	
GRAD 390, INST 220, METR 200, NAVI 300, NAVI 320, OPER 200, OPER 300, OPER 310, OPER 320, OPER 330, SAFE 305, SAFE 310.	
Alternate Category Program (Aeroplane to add Helicopter)	102 hours
ENGN 120*, NAVI 320*, OPER 300, OPER 310, OPER 320, REGS 200, SAFE 310, THER 320.	
Instructor Rating (Helicopters)	59 hours
INSR 450, INSR 470, INST 200, INST 220*, INST 480.	
Instrument Rating (Helicopters - Group IV)	84 hours
INST 200*, INST 220*, INST 400, METR 400, NAVI 300*, REGS 400.	

*These courses may be waived depending on background experience.

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Course	Course Title	Course Duration
AESL 099	Aviation English as a Second Language	as required
COMM 100	Introduction to Aircraft Communications	06 hours
ENGN 105	Aircraft Engines	06 hours
ENGN 120	Helicopter Airframes and Systems	14 hours
GRAD 390	Job Search / Resume and Interview Skills	06 hours
INSR 450	Elements of Instruction	08 hours
INSR 470	Flight Briefing Presentation	25 hours
INST 200	Principles of Flight Instrument Operation	08 hours
INST 220	Basic Instrument Flying Techniques	08 hours
INST 400	IFR Flight Procedures	40 hours
INST 480	Instrument Teaching Endorsement	10 hours
METR 100	Introduction to Meteorology	20 hours
METR 200	Advanced Meteorology and Aviation Services	20 hours
METR 400	Advanced IFR Meteorology	10 hours
NAVI 100	Principles of Navigation	10 hours
NAVI 120	Navigation and Flight Planning Procedures	20 hours
NAVI 200	Radio Navigation Aids	08 hours
NAVI 300	Advanced VFR Radio Navigation	12 hours
NAVI 320	Advanced Mountain Flight Training	20 hours
OPER 200	Standard Commercial Flight Operations	08 hours
OPER 300	Dangerous Goods Workshop	08 hours
OPER 310	The Job	12 hours
OPER 320	Operational Emergency Procedures Workshop	06 hours
OPER 330	Rate Quoting and Contract Bidding Workshop	10 hours
REGS 100	Pre-Solo Canadian Aviation Regulations	06 hours
REGS 200	Regulations II	08 hours
REGS 400	IFR Flight Air Regulations	06 hours
SAFE 200	Human Factors and Aviation Medicine	10 hours
SAFE 300	Pilot Decision Making	14 hours
SAFE 305	First Aid / Survival Workshop	08 hours
SAFE 310	On the job — Working Safety	20 hours
THER 320	Theory of Flight Helicopters	14 hours

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AESL 099 Aviation English as a Second Language Instructor : T.B.A.

An interactive course in English language skills specifically aimed at those in the aviation industry. The class features individual instruction.

COMM 100 Introduction to Aircraft Communications Instructor : Stevens; Watts

An introductory view of aircraft communication. Students cover topics such as standard radio-telephony techniques, ground signals, intercept orders, communication failure procedures, etc. Upon completion students receive a restricted radiotelephone operators certificate.

ENGN 105 Aircraft Engines Instructor : Shaw; Watts

An in-depth look at the principles of four stroke/cycle engine operation. The evolution of the aero engine is viewed from radial to turbine.

ENGN 120 Helicopter Airframes and Systems Instructors : Engineering Staff

Classroom theory combined with labs. Students learn the workings of the aircraft, its systems and components. Also included is an in-depth look at airworthiness. Through a greater understanding of the aircraft, students become better equipped to fly safely.

GRAD 390 Job Search / Resume and Interview Skills Instructors : Watts

As part of our continuing effort to assist our students in job placement, this course covers such topics as: how to write an effective resume and covering letter; how to obtain an interview; and expectations of recruiting personnel.

INSR 450 Elements of Instruction Instructors : Liscombe; Stevens; Watts

Methods of learning and techniques of teaching are covered in this section. The course follows part one of the Flight Instructor's guide, and includes lectures, demonstrations and student participation.

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INSR 470 Flight Briefing Presentation Instructor : Liscombe; Stevens; Watts

In groups and on an individual basis each flight lesson and flight maneuver is taught and reviewed. Lectures, flight briefings, and instructor presentations are covered with strong emphasis on student presentations. Students will be responsible to devise, construct and demonstrate useful training aids including models, and graphics for overhead, video, or slide projector use.

INST 200 Principles of Flight Instrument Operation Instructor : L. Watts

An overview of flight instrument operations. Topics include principles of operation and limitations of the pitot-static system, vacuum and electric gyro instruments, as well as an in-depth look at the magnetic compass.

INST 220 Basic Instrument Flying Techniques Instructor : L. Watts

Scan, instrument interpretation and flying skills are discussed and reviewed. Topics include: determination of primary and secondary instruments, instrument indications during flight maneuvers, instrument failure recognition and partial panel interpretation technique.

INST 400 IFR Flight Procedures Instructor : L. Watts

A complete look at IFR operations and navigation. A review of air navigation radio facilities is followed with an in-depth look at the appropriate procedures for departures, arrivals and enroute IFR navigation. A thorough working knowledge of the Canada Air Pilot, Canada Flight Supplement, LE, VNC, VTA and IFR Terminal area charts will be developed. Upon completion students will be ready to write the Transport Canada INRAT examination for the Instrument Rating.

INST 480 Instrument Teaching Endorsement Instructor : L. Watts

Students learn how to effectively present instrument flight lessons to the private and commercial level student. Concentration is made on student presentations and use of the flight procedures simulator.

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METR 100 Introduction to Meteorology

Instructor : Watts

An introductory look at the nature of weather. A study is made of the atmosphere, effects of temperature, humidity etc. Upon completion students will understand the basic factors relating to pressure systems, frontal weather and fog.

METR 200 Advanced Meteorology, and Meteorological Services

Instructor : Watts

A continuation of METR 100. A complete review of basic meteorology is followed with an in-depth look into pressure systems, wind, and frontal weather. Exercises include mapping weather trends, interpreting and charting weather forecasts. A strong emphasis is placed on aviation related weather considerations such as icing, thunderstorms, and the procedures for avoidance of hazardous conditions.

METR 400 Advanced IFR Meteorology

Instructor : L. Watts

An in-depth review of meteorological phenomenon including air masses and fronts, pressure systems and thunderstorms and icing. A special emphasis is placed on interpretation of weather forecasts and actuals as they relate to instrument flight.

NAVI 100 Principles of Navigation

Instructors : L. Watts

An introduction to navigation. Topics covered include generation and interpretation of topographic maps, interpretation and use of aviation charts. Students will have a good understanding of navigation related terms and phraseology and a working knowledge of the triangle of velocities and use of the flight computer.

NAVI 120 Navigation and Flight Planning Procedures

Instructors : Stevens ; Watts

A continuation of NAVI 100. Students learn the actual techniques required to fly cross country flights safely and efficiently. Measuring track, determining headings, tracks, estimated times enroute, fuel consumption, map reading techniques, diversions, weight and balance, use of a/c performance charts, ATC procedures, and altimeter setting procedures are among the topics covered.

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NAVI 200 Radio Navigation

Instructors : L. Watts

An introduction to radio navigation techniques including the evolution of our present system. Emphasis is given to the principles of VOR and ADF operation, as well as LORAN C and GPS systems. Introduction is also given to the HSI, RMI and RNAV utilities.

NAVI 300 Advanced VFR Radio Navigation

Instructors : L. Watts

A practical look at Radio navigation and radio flight planning considerations. Topics covered include : Radar advisory service and assistance procedures, review of the VOR and ADF/NDB navigation systems, use of LORAN C, OMEGA, GPS, and the HSI, RMI and RNAV utilities.

NAVI 320 Advanced Mountain Flight Training

Instructor : L. Watts

The mountains of British Columbia provide some of the most beautiful flying available - and some of the most hazardous. To increase flight safety and enjoyment, the following topics will be thoroughly covered: Mountain weather considerations; methods of mountain navigation; mountain waves and the effects of wind; considerations for reduced visibility and illusions; flight maneuvers such as ridge crossing and contour flying; and finally, landing site evaluations and landing techniques. An extensive look at the principles and techniques required for safe flight in the mountainous environment. Many practical applications are discussed as well as the hazards likely to be encountered during everyday flight operations.

OPER 200 Standard Commercial Flight Operations

Instructor : L. Watts

To operate most effectively, pilots must know how commercial operators carry on their business. Topics include: CARs Part VII, Air Carrier Licences and Operations Certificates, the use and authority of the Operations manual, use of available aeronautical publications such as the A.I.P. and NOTAMS, operations with passengers (briefing, boarding and disembarking procedures), and responsibilities of the Operations manager, Chief pilot, and Line pilots.

OPER 300 Dangerous Goods Workshop

Instructor : G. Stevens

This course fulfills the requirement for initial training for personnel carrying dangerous goods. Examples of dangerous goods include: explosives, flammables, corrosives, poisons, etc.

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OPER 310 The Job

Instructors : Stevens; Watts

This course concentrates on the practical aspects of how to be a “working pilot”. Topics include: operational planning; customer relations; mountain operations; and slinging operations.

OPER 320 Operational Emergency Procedures

Instructors : Stevens; Watts

These “what if” work shops are designed to assist pilots to pre-think possible emergency situations, and therefore increase the pilot’s ability to assist or lead others in the event of an aviation emergency.

OPER 330 Rate Quoting and Contract Bidding Workshop

Instructor : L. Watts

These workshop sessions cover the background knowledge required to be able to prepare a realistic quote for a prospective customer. The importance of knowing internal costing and its overall relationship to the profit and loss picture are stressed. The class is divided into several mock “companies”. Sample bids are prepared based on actual customer requests for helicopter service. Additional topics such as Customer Service, and handling enquiries over the telephone are also discussed.

REGS 100 Pre-Solo Aviation Regulations

Instructors : L. Watts

An introduction to the CARs and Pilot/Controller responsibilities. Successful completion of this course along with the PSTAR written examination is required prior to solo flight certification.

REGS 200 Air Regulations II

Instructor : L. Watts

A continuation of REGS 100. A thorough study is made of the regulations pertaining to visual flight, and an introduction is made to the Instrument Flight regulations.

REGS 400 IFR Flight Air Regulations

Instructor : L. Watts

A review of general flight regulations is followed by an in-depth study of the instrument flight rules. Students will be expected to have their own up to date AIP and to be able to quickly find any reference to IFR flight.

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SAFE 200 Human Factors and Aviation Medicine Instructors : Stevens; Watts

Covers such topics as factors affecting the pilot and flight crew physiologically and emotionally, and how those factors will affect their ability to make sound judgment decisions. A look into the various ways that the aviation environment affects the human body is also made.

SAFE 300 Pilot Decision Making Instructors : TC; Stevens; Watts

A continuation of SAFE 200 which concentrates on the pilot's decision making process. Students will learn to recognize hazardous personality traits within themselves and others. Also covered will be practical discussion on how to deal with various sources of stress in the aviation environment. The course also includes attendance at a day long MOT seminar on Pilot Decision Making.

SAFE 305 First Aid / Survival Workshop Instructor : T.B.A.

In cooperation with local first aid specialists, this course covers theoretical and practical considerations that need to be given to emergency first aid and wilderness survival after an aircraft emergency landing.

SAFE 310 On the job — Working Safety Instructor : Liscombe; Stevens; Watts

Covers the practical safety considerations that are likely to be encountered when working as a Commercial Pilot. Main topics covered are : Customer orientation and briefing; Mountain Flying safety; and safety when operating with underslung loads.

THER 320 Helicopter Theory of Flight Instructor : L. Watts

This course covers all aspects of aerodynamics relating to the issue of a private or commercial helicopter pilot licence. Topics include principles of flight, aerodynamics of the rotary wing aircraft, aerodynamic hazards and safety considerations, control problems and icing considerations.

Ground School Calendar

Flight and Ground Training Staff

Chief Flight Instructor: Lyle Watts 42 years helicopter experience
Class I instructor rating
ATP/IFR rated, Multi-engine rated
Designated Pilot Examiner VFR/IFR
Radio Licensing Examiner

Flight Instructors : Geoff Stevens 35 years helicopter experience
Class II instructor rating
Night Rated
over 19000hours R22 experience
Also endorsed on RH44, BH04, BH47,
BH06, HU50, HU30, EN28, HH12

Dave Liscombe 34 years helicopter experience
Class I instructor rating
ATP/IFR rated, Multi-engine rated

Ground Instructors : Geoff Stevens
Dave Liscombe
Lyle Watts

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Maintenance and Office Staff

Engineering Department :

E.M. HeliLogistics Ltd.
George Pesut
Kim Hill

Accounting :

Hillier and Associates

Student Administration Services :

Jane
Susan
Laurie

KEY TO COURSE CODE DESCRIPTIONS

AESL	Aviation English
COMM	Communications
ENGN	Engineering, Aircraft Systems and Maintenance
INSR	Instructor Course
INST	Instrument Training
METR	Meteorology
NAVI	Navigation
OPER	Standard Operational Procedures
REGS	Air Regulations
THER	Theory of Flight
SAFE	Aviation Safety

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