

Diploma programme details – attachment 2

PILOT TRAINING PILOT TRAINING DIVISION (PTD) Integrated Airline Transport Pilot License (ATPL) course

PURPOSE

The QAA PTD's flight training programme is based on the UK CAA's integrated course of training. It is approved by QCAA and mirrors the EASA Flight Crew Licensing training procedures. It is designed to take suitably capable cadets with no previous flight experience to the right-hand seat of a commercial airliner in minimal time.

WHAT YOU WILL LEARN

QAA offers 24 months full time Diploma in Aviation Studies programme leading to the issue of a QCAA Commercial Pilot License (CPL) with Multi-Engine Class Rating, and an Instrument Rating (IR). Upon gaining flight experience, this license is then automatically eligible for upgrade to a QCAA Airline Transport Pilot's License (ATPL (A)).

WHAT IS COVERED

The Integrated ATPL (A) course consists of 847 hours of theoretical knowledge training delivered over three stages, leading to 14 QCAA examinations in the following subject areas:

Semester 1

- Human Performance and Limitations
- Aircraft General Knowledge
- Principles of Flight
- IFR Communication
- VFR communication

Semester 2

- General Aviation
- Meteorology
- Operational Procedures
- Air Law
- Aircraft Performance

Semester 3

- Mass and Balance
- Flight Planning
- Instrumentation
- Radio Navigation

Semester 4

- General Handling and Skill Test

- Navigation Skill Test General Handling and Navigation Skill Test
- Single engine Instrument Skill Test

Semester 5

- Commercial pilot Licence Check (CPL)
- Instrument Rating Check (IR)
- Multi-Crew Cooperation Course (MCC)

On the flying side, our syllabus contains a total of 186 hours of actual flight training, consisting of:

- 144 hours in the Diamond DA40 single-engine aircraft,
- 42 hours in the Diamond DA42 multi-engine aircraft,
- A further 53 hours of procedural training conducted in the college's DA40 (single engine) and DA42 (multi-engine) flight navigation procedural trainers.

There are progress tests at the end of each flying phase and two QCAA Flight Tests resulting in the issuance of a QCAA Commercial Pilot License in a Multi-Engine Airplane with Instrument Flying privileges.

The Integrated ATPL course concludes with a 3 weeklong, 40 hours Jet Orientation and Multi-Crew Cooperation course in the college's Cessna Citation Jet or A320 simulator. At this point, the freshly graduated cadets are ready for type training with an airline. A typical entry-level aircraft would be the Airbus A320.

LEARNING ACTIVITIES

The Integrated ATPL course is a tight time bound intense course. The key thrust is to learn the theoretical concepts in a classroom environment and then applying this underpinning knowledge to achieve an effective, safe, and realistic flying training experience. The student performance is monitored by an established Progress and Assessment Monitoring System (PAMS) which involves a series of planned progress tests/ exams/ competency checks at various milestones. This entails that the student has to be a full-time student and actively participate in classroom activities and practical training. QCAA regulation mandates that the student must complete a minimum of 750 hours of theoretical classroom attendance for issue of the licence.

WHO SHOULD ATTEND

This programme is benefited to candidates who have successfully completed senior secondary school with mathematics and physics and have good proficiency in English. The Pre-entry requirements are as follows:

- Minimum age 17 years.
- Achieve IELTS scores: Reading 6.0, Listening 5.5, Speaking 5.5 and overall, 5.5.
- Achieve passes in all subjects in the Foundation Program, (Maths 75% and Physics 75%) and/or provide educational equalisation certificates.
- Hold a valid Qatar Class 1 Medical Certificate.
- Have passed the Maths and Physics examinations set by QAA and have achieved a grade 5 or above in the Pilot Aptitude Test (PILAPT).

AIRCRAFT MAINTENANCE

PURPOSE

The Aircraft Maintenance Engineering basic programme is approved to deliver the Subject Modules listed in Approved Curriculum Manuals for Category A1 and Category B.

WHAT YOU WILL LEARN

Subject Modules are designed to meet or exceed the requirements of Part 66. Successful completion of all the necessary Subject Modules, including practical training, designated for a particular Category or Sub- Category, along with meeting attendance requirements, will entitle the student to a Certificate of Recognition as having completed an approved Part 147 basic training programme. Students may qualify in more than one Category or Sub-Category.

WHAT IS COVERED

The curriculum is divided into Subject Modules. Subject Modules are shown in the table below:

Subject Module
Mathematics
Physics
Electrical Fundamentals
Electronic Fundamentals
Digital Techniques and EIS
Materials and Hardware
Maintenance Practices 1
Maintenance Practices 1
Basic Aerodynamics
Human Factors
Human Factors (Essay)
Aviation Legislation
Aviation Legislation (Essay)
Turbine Aeroplane aerodynamic, Structures and System
Gas Turbine Engines
Propellers
On-The-Job Training

LEARNING ACTIVITIES

Knowledge training takes place, primarily, in a classroom however field trips or short visits to workshops may be included where it would enhance or reinforce the knowledge training.

Practical learning & assessment will be by means of demonstrating successful completion of a number of tasks which are representative of tasks related to a significant range of inspections, testing and other maintenance tasks.

The Practical Work Experience (PWE) is the final learning component. This takes place in the Qatar Airways facility for 350 hours of “live” training on in-service aircraft under the supervision of qualified Engineers approved by Qatar Airways and Qatar Aeronautical College.

WHO SHOULD ATTEND

Students who possess technical skills or have a keen interest in acquiring the skills will benefit from the detailed learning within the programme. Prior to pursuing a career in aviation engineering (or a related field) the fundamentals of engineering principles and practices are gained throughout the programme.

Students must have IELTS grades of at least 5.5 Overall, 5.5 in Reading, Writing, Listening and Speaking.

ADVANCE AVIATION MANAGEMENT

PURPOSE

This programme provides participants with a broad understanding of Airport and Ground Operations in the areas of Terminal and Landside, Airside Operations and Business Operations and prepare them with the knowledge to successfully address the operational and business needs of the modern airport.

Upon completion of the programme, the candidates will be able to understand the role airports play in the economy, discover the various airport customers and partners, gain knowledge about the multiple operational and business functions of the airports, acquire the tools to apply their knowledge and skills to their airport environment, control and supervise the airport in a self-handled or outsourced environment.

WHAT IS COVERED

The course is spread in to four semesters in two years duration in which an in-depth study of subjects like Introduction to Airline Industry, Airport Operations Fundamentals, Ground Operations Management, Airline Customer Services, Aviation Security Awareness, Technical Report Writing, Airside Operations, Terminal & Landside Operations, Airport Business Operations, Airport Commercial Management, Research Methodology & On the Job Training.

LEARNING ACTIVITIES

Classroom Training & Discussions involve national and international studies demonstrate a direct correlation between classroom attendance and grade performance. Because much of the learning takes place via classroom activities and group interaction and attendance is essential. Attendance equates to showing up on time, listening, turning in assignments, and participating in class discussions.

WHO SHOULD ATTEND

This programme benefits candidates who have successfully completed senior secondary school with a good proficiency in English with IELTS 5.0.

AIR TRAFFIC CONTROL

PURPOSE

This programme provides participants with necessary knowledge, skills and attitudes required to undertake On Job Training (OJT) at an Air traffic control unit under the supervision of a licensed air traffic control officer for rating training, in order to be issued with an Air Traffic Control license.

WHAT YOU WILL LEARN

Upon completion of this programme, the participants will be able to undertake On Job Training (OJT) at an Air traffic control unit under the supervision of a licensed air traffic control officer for rating training, in order to be issued with an Air Traffic Control license.

WHAT IS COVERED

The diploma course provides a comprehensive study and training of all aspects of air traffic Management and includes the following subjects:

- Equipment and Systems
- Air traffic management
- Aviation law,
- Meteorology
- Aircraft
- Navigation
- Equipment and systems,
- Human factors
- Aerodromes
- Abnormal and emergency situations
- Simulator practical training which introduces students to the practical aspects of air traffic management.

LEARNING ACTIVITIES

Learning activities consist of classroom lectures, case studies, on-site visits, and practical training (simulator exercises) in a 3-D Aerodrome Control simulator which supports surveillance and non-surveillance training.

WHO SHOULD ATTEND

This programme benefits anyone who is interested in making a career as an Air traffic controller and who have successfully completed senior secondary school with a good proficiency in English with IELTS 5.5.

METEOROLOGY

PURPOSE

This programme provides an in-depth study on Meteorological subjects as per WMO standard, to prepare the students to earn a Diploma in Meteorology and to enter the workforce as qualified meteorological personnel in the National Met Service.

WHAT YOU WILL LEARN

Upon completion of the programme, the candidates will be able to perform as meteorological personnel in various atmospheric sciences related fields. They also qualify for entry level positions as per the World Meteorological Organization (WMO) as recognized senior-level Met Technicians and Forecasting officers. The successful candidates can continue their education to become fully qualified meteorologists by completing an internationally recognized bachelor's degree at a number of tertiary institutions around the world.

WHAT IS COVERED

The course is spread in to five semesters in two and a half years duration in which an in depth study on subjects like, Mathematics, Physics 1-2, General Meteorology and Instruments, Met data Collection, Observation, Coding and plotting, Computer Science and data Processing, Calculus, Climatology, Synoptic Metrology and Chart Analysis ,Advanced Calculus , Atmospheric physics 1 , Atmospheric Dynamics and Agrometeorology . Modern techniques of weather analysis and forecasting using Forecast simulator are carried out.

LEARNING ACTIVITIES

Classroom Training & Discussions involve national and international studies demonstrate a direct correlation between classroom attendance and grade performance. Because much of the learning takes place via classroom activities and group interaction and attendance is essential. Attendance equates to showing up on time, listening, turning in assignments, and participating in class discussions. The course focusses more on practical with this integrated programme of courses blending theoretical knowledge in the classroom with practical using simulators and experience gained during visits and internships.

WHO SHOULD ATTEND

This programme benefits candidates who have successfully completed senior secondary school with mathematics and physics and have good proficiency in English with IELTS 5.0.

FOUNDATION PROGRAM

PURPOSE

This programme provides English language teaching, Mathematics and Science to those with no or some knowledge. The training provided includes comprehensive theoretical teaching.

WHAT YOU WILL LEARN

Upon completion of this programme, candidates will be able to:

- Develop learner's English language and improve their critical thinking and study skills.
- Be competent in the four skills of English language.
- Speak fluently and present good usage of English language communication.
- Prove high standard of reading and writing.
- Master the basic skills in mathematics which can be served as a solid foundation for further maths and physics needed for their disciplines in aviation.

WHAT IS COVERED (these are only samples of covered topics)

- Grammar and vocabulary
- Reading comprehension
- Writing skills
- Presentations
- IELTS preparation
- Professional speaking skills
- Whole Numbers
- Introduction to Integers and Algebraic Expressions
- Fraction Notation: Multiplication and Division
- Algebra
- Ratio, Proportion and Percentages
- Thermal Physics
- Electricity
- Magnetism
- Wave motion

LEARNING ACTIVITIES

Learning activities include My Math Lab, Clarity English software, Assessments, Online homework, and Classroom tutorial.

WHO SHOULD ATTEND

This programme benefits students who aim at improving their language skills or expanding their knowledge in Maths and Science. This programme is essential for students wishing to join aviation majors as they need solid knowledge in English, Maths and Science courses.