

# AVIATION MAINTENANCE ENGINEERING TECHNOLOGY (AIRFRAME AND AEROENGINES): DIPLOMA

## Program Mission

Working in partnership with industry, the Diploma in Aviation Maintenance Engineering Technology (Airframe and Aeroengines) program provides quality education that prepares highly skilled technicians capable of serving the community and fulfilling personal ambitions with excellence. Graduates may choose to continue into the additional two years of the program to become innovative engineers.

## License Requirement

After exiting the Aviation Maintenance Engineering Technology program with the diploma, students could continue training for aviation maintenance licenses in accordance with GCAA regulations (CAR 66.25). The graduate would be required to complete an additional 10 modules in a self-study program, with the examinations carried out at HCT under the provisions of GCAA as an approved Examination Center. The entire course must be completed within a 10 year period. Refer to [www.gcaa.gov.ae](http://www.gcaa.gov.ae) (E-Publications – (CAR's-CAR Part II- Chapter 7)) for full details and specific information.

## Program Goal

*The Program Educational Objectives of the Diploma in Aviation Maintenance Engineering Technology: Airframe and Aeroengines program are to:*

1. Provide aviation graduates with the technical knowledge and skills required by the aviation industry to maintain a variety of aircraft systems to the highest standards.
2. Prepare graduates for a successful career with strong communication and teamwork skills and an understanding of the global, ethical and social implications of the aviation industry.
3. Prepare graduates with a strong commitment to lifelong learning, continuing education and professional growth.
4. Provide graduates the commitment to contribute actively to achieving the regulatory authorities' mission.

## Program Learning Outcomes

*Upon graduation, a HCT graduate in Diploma of Aviation Maintenance Engineering Technology (Airframe and Aeroengines) program should demonstrate:*

- a. An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to identify, explain, formulate and solve well-defined engineering problems appropriate to the aviation maintenance and in accordance with regulations and manufacturer's instructions.
- b. An ability to design systems, components, or processes meeting specified needs for well-defined engineering problems related to Aviation Engineering Technology.

c. An ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature, computer software, information and communication technologies at a level required for basic aviation maintenance.

d. An ability to conduct standard tests, measurements, experiments and practical activities and to analyze and interpret the results.

e. An ability to function effectively as a member of a technical team.

## Requirements Completion Requirements

Diploma in Aviation Maintenance Engineering Technology: Airframe and Aeroengines

Students must successfully complete a minimum of 77 credits, including:

Code	Title	Credit Hours
Core Courses		38
Mathematics and Science Courses		15
General Studies course		24
<b>Total Credit Hours</b>		<b>77</b>

Note : Work placement I is 8 weeks. HCT will use its best endeavors to provide work placement opportunities. However, HCT is not able to guarantee work-placement positions.

Code	Title	Credit Hours
<b>Core Courses</b>		
Required Credits: 38		
AVT 1003	Aviation Mathematics and Physics	3
AVT 2103	DC Electrical Fundamentals	3
AVT 2113	AC Electrical Fundamentals and Electrical Machines	3
AVT 2203	Workshop Practices and Safety	3
AVT 2213	Aircraft Materials	3
AVT 2223	Aircraft Hardware	3
AVT 2233	Maintenance Procedures and Abnormal Events	3
AVT 2243	Electrical Wiring Standards and Practices	3
AVT 2303	Aircraft Fundamentals and Basic Aerodynamics	3
AVT 2806	Work Placement I for Aviation	6
AVT 2902	Sophomore Design Project	2
EGN 1133	Design Thinking in Technology	3

### Mathematics and Science Courses

Required Credits: 15		
CHM 1103	Engineering Chemistry	3
MTH 1103	Pre Calculus	3
MTH 1203	Calculus I	3
MTH 2103	Calculus II	3
PHY 1203	Physics II	3

### General Studies Courses

Required Credits :24

### English, Arabic or other Languages

Required Credits: 9

LSC 1103, AES 1013 and AES 1033

**Humanities or Arts**

Required Credits: 3

AES 1003

**Information Technology and Mathematics**

Required Credits: 6

ICT 2013 and MTH 1113

**The Natural Sciences**

Required Credits: 3

PHY 1103

**The Social or Behavioral Sciences**

Required Credits: 3

LSS 1003

Description	Data
Total Required Credits	77
Maximum Duration of Study	3 years
Minimum Duration of Study	2 years
Cost Recovery Program	No
Program Code	DAVET
Major Code	AVE

## Ideal Study Plan

### Recommended Sequence of Study

**Year 1**

Semester 1		Credit Hours
EGN 1133	Design Thinking in Technology	3
LSC 1103	Professional Communication and Reporting	3
LSS 1003	Life and Future Skills	3
MTH 1103	Pre Calculus	3
PHY 1103	Physics I	3
Credit Hours		15
Semester 2		
AES 1013	Arabic Communications I	3
AES 1033	Islamic Culture	3
MTH 1113	Statistics for Engineering	3
MTH 1203	Calculus I	3
PHY 1203	Physics II	3
Credit Hours		15
Summer		
AVT 1003	Aviation Mathematics and Physics	3
CHM 1103	Engineering Chemistry	3
Credit Hours		6

**Year 2**

Semester 3		Credit Hours
AES 1003	Emirati Studies	3
AVT 2103	DC Electrical Fundamentals	3
AVT 2203	Workshop Practices and Safety	3
AVT 2213	Aircraft Materials	3
AVT 2303	Aircraft Fundamentals and Basic Aerodynamics	3
MTH 2103	Calculus II	3
Credit Hours		18
Semester 4		
AVT 2113	AC Electrical Fundamentals and Electrical Machines	3
AVT 2223	Aircraft Hardware	3
AVT 2233	Maintenance Procedures and Abnormal Events	3

AVT 2243	Electrical Wiring Standards and Practices	3
AVT 2902	Sophomore Design Project	2
ICT 2013	Computational Thinking and Coding	3
Credit Hours		17
Summer		
AVT 2806	Work Placement I for Aviation	6
Credit Hours		6
Total Credit Hours		77