

AERONAUTICAL ENGINEERING TECHNOLOGY: DIPLOMA

Program Mission

Working in partnership with industry, the Diploma in Aeronautical Engineering Technology 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.

Program Goal

The Program Educational Objectives of the Diploma in Aeronautical Engineering Technology program are to:

1. Provide Aeronautical Engineering Technology professionals with the technical knowledge and skills required by the industry to maintain aviation systems to highest level of industry 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. Provide graduates with strong commitment to lifelong learning, continuing education, and professional growth.

Program Learning Outcomes

Upon graduation, a HCT graduate in Diploma in Aeronautical Engineering Technology should demonstrate:

- a. An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well# defined engineering problems appropriate to Aeronautical Engineering Technology.
- b. An ability to design solutions for well#defined technical problems and assist with the engineering design of systems, components,or processes appropriate to Aeronautical 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.
- d. An ability to conduct standard tests, measurements, and experiments 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 Aeronautical Engineering Technology

Students must successfully complete a minimum of 78 credits, including:

Code	Title	Credit Hours
	Program Core Courses	39
	Mathematics and Science Courses	15
	General Studies course	24
	Total Credit Hours	78

Code	Title	Credit Hours
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Aeronautical Engineering Core Courses

Required Credits : 39

AET 2103	Fundamentals of Flight	3
AET 2403	Applied Thermofluids	3
AET 2902	Sophomore Design Project	2
AET 3503	Fixed And Rotary Wing Assemblies	3
AET 4613	Avionics Systems	3
EGN 1133	Design Thinking in Technology	3
EGN 2806	Work Placement I	6
ELE 2153	Electrical Eng Fundamentals	3
MCE 2203	Applied Statics	3
MCE 2213	Mechanics of Materials	3
MCE 2303	Material Selection and Testing	3
MCE 2311	Solid Modelling	1
MTE 3603	Electronics Systems and Circuits	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

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	78
Maximum Duration of Study	3 years
Minimum Duration of Study	2 years
Cost Recovery Program	No
Program Code	DAEET
Major Code	AET

Ideal Study Plan

Recommended Sequence of Study

Year 1		Credit Hours
Semester 1		
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 1003	Emirati Studies	3
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		18
Summer		
CHM 1103	Engineering Chemistry	3
ELE 2153	Electrical Eng Fundamentals	3
Credit Hours		6
Year 2		
Semester 3		
AET 2103	Fundamentals of Flight	3
ICT 2013	Computational Thinking and Coding	3
MTH 2103	Calculus II	3
MCE 2203	Applied Statics	3
MCE 2303	Material Selection and Testing	3
MTE 3603	Electronics Systems and Circuits	3
Credit Hours		18
Semester 4		
AET 2403	Applied Thermofluids	3
AET 2902	Sophomore Design Project	2
MCE 2213	Mechanics of Materials	3
MCE 2311	Solid Modelling	1
AET 3503	Fixed And Rotary Wing Assemblies	3
AET 4613	Avionics Systems	3
Credit Hours		15
Summer		
EGN 2806	Work Placement I	6
Credit Hours		6
Total Credit Hours		78