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 earn the bachelor degree and 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, 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 76credits, including:

Code	Title	Credit Hours
Program Core Courses		42
Mathematics and Science Courses		12
General Studies course		18
Total Credit Hours		**72**

Code	Title	Credit Hours
Aeronautical Engineering Core Courses		
Required Credits : 42		
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 1001	Engineering Workshop	1
EGN 1133	Design Thinking in Technology	3
EGN 2712	Applied Programing for Engineers	2
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 : 12		
CHM 1103	Engineering Chemistry	3
MTH 1203	Calculus I	3
MTH 2103	Calculus II	3
PHY 1203	Physics II	3
General Studies		
Required Credits: 18		
English, Arabic or other Languages		
Required Credits : 6		
LSC 1103 and AES 1013		
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	72
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		
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 1203	Calculus I	3
PHY 1103	Physics I	3
	Credit Hours	**15**
Semester 2		
AES 1013	Arabic Communications	3
CHM 1103	Engineering Chemistry	3
EGN 1001	Engineering Workshop	1
ICT 2013	Computational Thinking and Coding	3
MTH 1113	Statistics for Engineering	3
PHY 1203	Physics II	3
	Credit Hours	**16**
Summer		
ELE 2153	Electrical Eng Fundamentals	3
MCE 2203	Applied Statics	3
	Credit Hours	**6**
Year 2		
Semester 3		
AET 2103	Fundamentals of Flight	3
AET 2403	Applied Thermofluids	3
MCE 2303	Material Selection and Testing	3
MCE 2311	Solid Modelling	1
MTE 3603	Electronics Systems and Circuits	3
MTH 2103	Calculus II	3
	Credit Hours	**16**
Semester 4		
AET 2902	Sophomore Design Project	2
AET 3503	Fixed And Rotary Wing Assemblies	3
AET 4613	Avionics Systems	3
EGN 2712	Applied Programing for Engineers	2
MCE 2213	Mechanics of Materials	3
	Credit Hours	**13**
Summer		
EGN 2806	Work Placement I	6
	Credit Hours	**6**
	Total Credit Hours	**72**