University Catalogue

Undergraduate Academic/Applied Programmes

2024-2025
(Oct 2024)

Message from the Chancellor

Dear Students,

A warm welcome to all of you who have walked through the portals of Emirates Aviation University as a new student or a continuing one.

The year ahead promises to be an exciting one for you as a scholar, and as a part of the Emirates success story and the exciting developments in Dubai as well as the region.

The University has many new initiatives on the 'whiteboard', designed to make the courses more interesting and interactive. The icing on the cake of course is that the University is licensed and the programmes are accredited by the Ministry of Education in the UAE.

Both our students and our teams of academics deserve a huge pat on the back for being named the Middle East's Best Aviation Training Academy by ITP Business Publishing.

Emirates and Dubai are symbols of supreme success against all odds and are fast becoming global icons. The extraordinary changes wrought by the travel industry in Dubai opens up a world of career opportunities for you, which is why the University has carefully designed its aviation programmes to equip you with the necessary academic underpinning and management skills.

We hope the success of Emirates and Dubai will rub off on our student community and I look forward to hearing of your many triumphs in the coming years.

All the very best.

H.H. Sheikh Ahmed Bin Saeed Al Maktoum
Chancellor
Emirates Aviation University

Message from the Vice-Chancellor

It is with great pleasure that I welcome you to Emirates Aviation University (EAU). The University has made significant progress over the past years and we are very proud of our mission of excellence and strong commitment to the success of our students. Our faculty and staff are well-qualified, experienced, and dedicated to help you achieve your academic goals. Your education at EAU is an investment that will provide a lifetime of value and enable you to fully develop your potential.

All academic/applied programmes offered by the University have been prepared to ensure your technological competence and enhance your generic skills that are highly demanded in today's job market. In addition, the University offers many extracurricular opportunities to promote your continued growth and development.

This Catalogue will provide you valuable information about your study programme, academic and financial regulations, student affairs, and various services offered by the University. I encourage you to read this Catalogue carefully and keep it available as a ready reference. If you have any questions, do not hesitate to contact your academic advisor for help and advice whenever you need it. I also urge you to provide us with your feedback about the academic/ applied programmes and the University life so that we may continually improve the quality of education and services offered by the University.

I hope you will enjoy your time at the University and take full advantage of the opportunities offered by the University for your personal, intellectual, and professional growth. On our side, you will always find us ready to serve your needs in any way we can.

Professor Dr Ahmad Al Ali
Vice-Chancellor
Emirates Aviation University

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1. Academic Calendar 2024-2025

EAU Academic Calendar 2024 – 2025

Fall Semester 2024

September – December 2024

Day	Date	Event
Monday - Friday	July 1st - August 30th 2024	Registration Period (returning students)
Thursday & Friday	August 29th - 30rd, 2024	Induction for new students – 2 days
Monday	September 2nd, 2024	First day of classes
Monday - Friday	September 2nd - 6th, 2024	Add and drop period
Friday	September 6th, 2024	Deadline for accepting change of major
Friday	September 13th, 2024	Deadline for suspending registration Deadline for accepting credit transfer
Friday	November 8th, 2024	Deadline for withdrawing from a course (W)
Saturday-Monday	December 14th - 23rd, 2024	Examination Period
Tuesday - Sunday	December 24th, 2024 - January 12th, 2025	Winter break
Thursday	January 2nd, 2025	Announcement of final examination results
Monday - Tuesday	January 6th - 7th, 2025	Re-sit exams

Spring Semester 2025

January – May 2025

Day	Date	Event
Thursday - Friday	January 2nd - 10th, 2025	Registration Period (returning students)
Thursday & Friday	January 9th - 10th, 2025	Induction for new students – 2 days
Monday	January 13th, 2025	First day of classes
Monday - Friday	January 13th - 17th, 2025	Add and Drop Period
Friday	January 17th, 2025	Deadline for accepting change of major
Friday	January 31st, 2025	Deadline for suspending registration Deadline for accepting credit transfer
Monday - Friday	March 31st - April 4th, 2025	Mid-semester break
Monday	April 14th, 2025	Deadline for withdrawing from a course (W)
Saturday-Saturday	May 3rd - 10th, 2025	Examination Period
Monday	May 12th, 2025	Summer break
Friday	May 16th, 2025	Announcement of final examination results
Monday - Tuesday	May 19th - 20th, 2025	Re-sit exams

Summer Semester 2025

June – July 2025

Day	Date	Event
Friday - Friday	May 16th - 30th, 2025	Registration period (returning students)
Monday	June 2nd, 2025	First day of classes
Monday - Thursday	June 2nd - 5th, 2025	Add and drop period
Friday	June 13th, 2025	Deadline for withdrawing from a course (W)
Thursday - Friday	July 3rd - 4th, 2025	Final examinations (UG)
Friday	July 11th, 2025	Announcement of final examination results

2. University Profile

Emirates Aviation University (EAU) was established in 1991 by the Department of Civil Aviation, initially to provide aviation-related training to private students and corporate clients. The University has since expanded and diversified and now offers an extensive range of educational opportunities designed to provide students with the best aviation-related specialisations that service both the technical and management sides of the aviation industry. In September 2001, the University was merged with Emirates to form the "academic wing" of the Emirates Group.

The University offers the following undergraduate academic/applied programmes:

Programme Name	EAU Faculty
Bachelor of Business Administration (BBA) in Aviation Management ➢ Higher Diploma (HD) in Aviation Management (subsumed qualification) ➢ Diploma (D) in Aviation Management (subsumed qualification)	Faculty of Business Management
Bachelor of Business Administration (BBA) in Global Logistics and Supply Chain Management ➢ Higher Diploma (HD) in Global Logistics and Supply Chain Management (subsumed qualification) ➢ Diploma (D) in Global Logistics and Supply Chain Management (subsumed qualification)	Faculty of Business Management
Higher Diploma in Business Management	Faculty of Business Management
Bachelor of Science in Computer Science - Artificial Intelligence Bachelor of Science in Computer Science - Data Science	Faculty of Mathematics & Data Science
Bachelor of Science (B.Sc.) in Aeronautical Engineering	Faculty of Engineering
Applied Bachelor in Aerospace Engineering ➢ Advanced Diploma in Aerospace Engineering – 3 years ➢ Diploma in Aerospace Engineering – 2 years	Faculty of Engineering
Applied Bachelor in Avionics Engineering ➢ Advanced Diploma in Avionics Engineering – 3 years ➢ Diploma in Avionics Engineering – 2 years	Faculty of Engineering
Applied Bachelor in Mechanical Engineering ➢ Advanced Diploma in Mechanical Engineering – 3 years ➢ Diploma in Mechanical Engineering – 2 years	Faculty of Engineering
Applied Bachelor in Aircraft Maintenance Engineering	Faculty of Engineering
Higher Diploma in Aircraft Maintenance	Faculty of Engineering

National and International Accreditations:

All the above programmes are accredited by the UAE Ministry of Education – Higher Education Affairs.

The Bachelor of Science (B.Sc.) in Aeronautical Engineering programme is internationally accredited by Royal Aeronautical Society.

The Applied Bachelor programmes are internationally accredited by Royal Aeronautical Society.

The Bachelor of Business Administration (BBA) in Aviation Management and Bachelor of Business Administration (BBA) in Global Logistics and Supply Chain Management are internationally accredited by The Chartered Institute of Logistics and Transport (UK) (CILT).

The University has a wide range of experienced faculty members with strong academic backgrounds as well as relevant industry experience. This balance helps to provide the ideal blended learning environment for our diverse student population to achieve to the very best of their abilities.

3. Vision, Mission, & Core Values

3.1 Vision

To be the world's leading institute of higher education in aviation and related disciplines.

3.2 Mission

Provide exceptional education in aviation and related disciplines that fosters critical thinking, creativity, and lifelong learning, while encouraging faculty research and promoting community outreach to benefit the industry, society, and the public good.

3.3 Core Values

Excellence	Achieving highest levels of quality in all we do.
Leadership	Developing the visions and strategies for a desired future and aligning and energising our people to achieve our vision.
Innovation	Creating and implementing new ideas and methods.
Collaboration	Working cooperatively with the Emirates Group and other organisations.
Responsiveness	Providing appropriate programmes and services in a proactive, flexible and timely manner.

3.4 Goals

Goal A	**Programmes and Curricula:** Align programmes with industry needs and provide professional training in collaboration with industry.
Goal B	**Student Experience and Success:** Provide exceptional learning experience, fostering research, innovation, inclusiveness, and diversity.
Goal C	**Talent Recruitment and Retention:** Foster interactive work environment which offers, ergonomic workspaces, innovation, work-life balance, diversity, inclusion, and attractive compensation and benefits.
Goal D	**International Presence:** Expand global reach by increasing programme offerings, collaborations, visibility, and alumni network.
Goal E	**Institutional Sustainability:** Achieve sustainable growth, ensuring efficient and effective resource management.

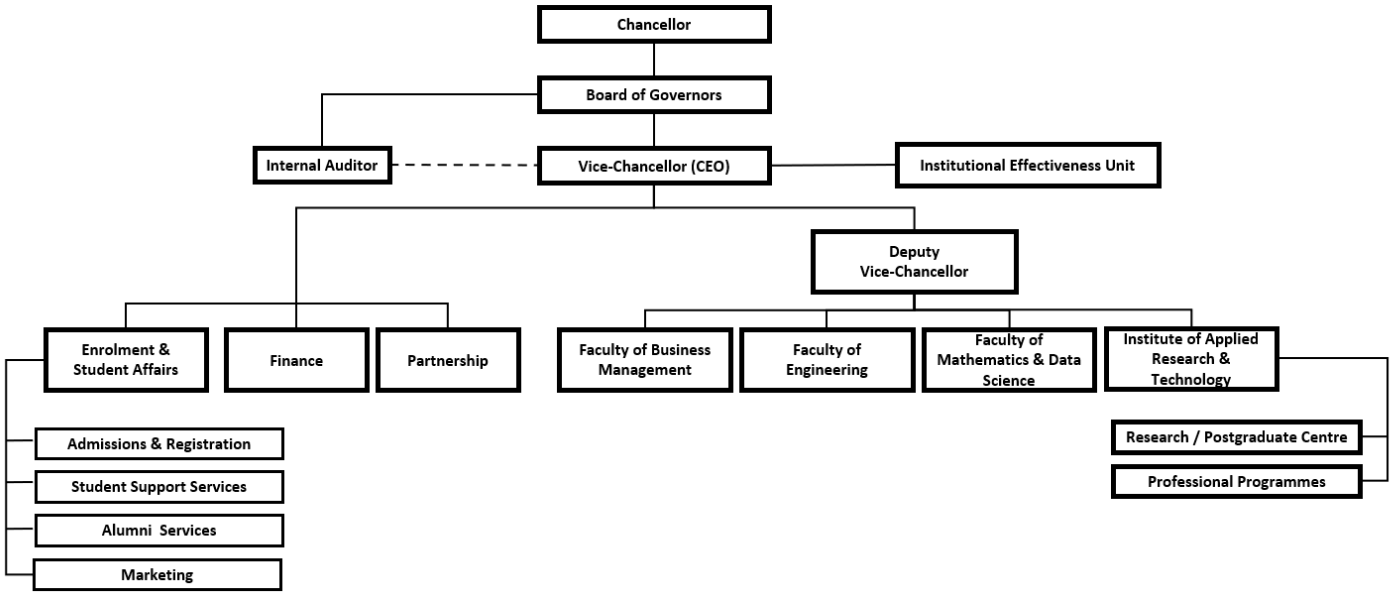
4. Licensure

Emirates Aviation University, located in Dubai, is officially licensed by the Ministry of Education of the United Arab Emirates to award degrees/qualifications in higher education. The current license is valid until 1st September 2026.

5. Organisation Chart

The EAU Organisation Chart is shown below followed by the University Administration.

EAU Organisational Chart:



5.1 List of EAU Board of Governors

The current composition of the EAU Board of Governors is as follows:

- His Highness Sheikh Ahmed Bin Saeed Al Maktoum - Chairman & Chief Executive, Emirates Airline & Group
- Professor Ahmad Al Ali – Vice Chancellor, Emirates Aviation University
- Steve Allen – CEO, dnata
- Michael Doersam - Chief Financial Officer, Emirates Group
- Ahmed Safa – Divisional Senior Vice President Engineering, Emirates Group
- Amira Al Falasi - SVP HR Group Training & Development, Emirates Group
- Oliver Grohmann- Executive Vice President, Human Resources, Emirates Group
- Rick Ward – Senior Vice President Legal, Emirates Group
- Dr Amer Sharif – Chief Executive Officer, Dubai Healthcare City Authority, Education Sector (DHCE)
- Dr David Pilsbury - Vice President, University Partnerships, Oxford International

5.2 EAU Contact Information & Location

Emirates Aviation University is located in Dubai International Academic City, Dubai, UAE. The contact number of the EAU call centre is +971 (4) 605 01 00.

6. Resources & Physical Setting

In January 2015, Emirates Aviation University relocated to its new campus in Dubai International Academic City (DIAC). The new campus was built with a population capacity of five thousand (5000) and provides enhanced facilities to improve student services.

7. Admissions

The undergraduate academic/applied programmes offered by Emirates Aviation University emphasise quality education and aim at producing competent and qualified graduates who can contribute to the increased demand of the widely expanding aviation industry. Applicants to the undergraduate academic/applied programmes are considered on the basis of their qualifications regardless of race, colour, gender, religion, disabilities, age or national origin.

The language of instruction is English and a good command of the language, both oral and written, is essential for students' success in the undergraduate academic/applied programmes at EAU.

The EAU Admission and Registration Department is responsible for responding to admission inquiries and processing applications.

7.1 Admission Criteria

Undergraduate Academic Programmes

Students will be admitted to the EAU undergraduate academic programmes according to the following criteria:

1. Admission will be granted for a specific semester. Failing to join the University in that semester will nullify the applicant's rights for admission and a new application must be submitted.
2. All applicants to the engineering programmes must:
    - hold a Scientific Secondary Certificate or equivalent;
    - have a minimum cumulative average of 70 percent in the final year of their UAE secondary education or its equivalent;
    - have a minimum score of 80%, or equivalent, in mathematics and physics; and
    - meet the English Language Proficiency requirement as described below.
3. All applicants to the business programmes must:
    - have a minimum cumulative average of 70 percent in the final year of their UAE secondary education or its equivalent;

- appear for and pass an evaluation interview, if their cumulative average is between 70 percent and 80 percent.

4. Conditionally admitted students may not take more than 12 credits hours per semester of appropriate General Education coursework.

7.1.1 Equivalent Secondary School Certificates

EAU will refer to the MOE Decree No. 322/year 2017 in relation to admitting students who have completed their secondary education in the UAE, based on the MOE System of Education or that of Abu Dhabi Education Council.

EAU recognises certificates awarded by ministries of education, private secondary schools that are recognised by their host country, international and national boards. In this regard, EAU will refer to the MOE Decrees No. 200/year 2004 and No. 133/year 2005, or any such relevant decree that supersedes or post-date these. All credentials submitted in support of an application must be officially certified.

7.1.2 English Language Proficiency Requirement

To complete the requirements for admission, the applicant must show evidence of competency in the English language as measured in terms of TOEFL or IELTS or EmSAT Achieve – English score and as given in the following table. The University will accept TOEFL, IELTS, and EmSAT Achieve - English test results with a validity of 24 months from the date of test taking.

English Proficiency Test	Minimum Required Score
TOEFL (Paper-based)	500
TOEFL (CBT)	173
TOEFL (iBT)	61
IELTS	5.0
EmSAT Achieve - English	1100

7.1.2.1 English Foundation Programme

Students who satisfy all the admission requirements of a programme but fail to obtain the minimum required score in TOEFL, IELTS, EmSAT Achieve – English, as specified in the above table, may be offered a place in an intensive English language foundation programme (FPIE) at the University to improve their English language skills. In such cases, students will be placed in either Level 1 or Level 2 depending on placement testing results. Level 1 students are expected to complete one semester of intensive English and progress to a second semester at Level 2. Only at the end of Level 2 will students appear for an IELTS examination. Those who will achieve the required minimum score of 5.0 or more will be admitted to the respective programme. In the unlikely event of not obtaining the required minimum score in IELTS, the student will discontinue study at EAU.

Applied Bachelor in Aerospace Engineering – Entry Requirements:

- High School Certificate - A recognised and officially certified secondary school certificate or equivalent with a minimum 80% as a total average. Applications with scores below 80% may be reviewed and the applicant will be subject to an interview.
- Alternatively:
    - Five GCSE/IGCSE O-level subjects + 2 GCE AS-level subjects with a minimum grade 'C' in all OR
    - Five GCSE/IGCSE O-level subjects + 1 GCE AS-level subject 1 + GCE A-level subject with a minimum grade 'D' in either Maths or Physics.
- All applicants must demonstrate a competence to study using the English Language. This would normally be a minimum of: TOEFL Paper Based (500); or TOEFL CBT (173); or TOEFL IBT (61); or IELTS (5) or PTE Academic (36).

Applied Bachelor in Avionics Engineering – Entry Requirements:

- High School Certificate - A recognised and officially certified secondary school certificate or equivalent with a minimum 80% as a total average, between 70 – 79% will be subject to an interview.
- Alternatively:
    - Five GCSE/IGCSE O-level subjects + 2 GCE AS-level subjects with a minimum grade 'C' in all OR
    - Five GCSE/IGCSE O-level subjects + 1 GCE A-level subject with a minimum grade 'D' in either Maths or Physics.
- Original certificate for either TOEFL Paper Based (500); or TOEFL CBT (173); or TOEFL IBT (61); or IELTS (5) or PTE Academic (36).
- OR undertake EAU's English language test.
- Transfer admission/Accreditation of Prior Learning (APL) is possible, subject to the applicable EAU regulations, in Years 1 and 2, but not allowed for the final year.

Applied Bachelor in Mechanical Engineering – Entry Requirements:

- High School Certificate - A recognised and officially certified secondary school certificate or equivalent with a minimum 80% as a total average. Applications with scores below 80% may be reviewed and the applicant will be subject to an interview.

Alternatively:

- Five GCSE/IGCSE O-level subjects + 2 GCE AS-level subjects with a minimum grade 'C' in all OR
- Five GCSE/IGCSE O-level subjects + 1 GCE AS-level subject 1 + GCE A-level subject with a minimum grade 'D' in either Maths or Physics.

- All applicants must demonstrate a competence to study using the English Language. This would normally be a minimum of: TOEFL Paper Based (500); or TOEFL CBT (173); or TOEFL IBT (61); or IELTS (5) or PTE Academic (36).

Applied Bachelor in Aircraft Maintenance Engineering – Entry Requirement:

- Entrants must be 17 years minimum.
- High School Certificate - A recognised and officially certified secondary school certificate or equivalent with a minimum 75% as a total average. Applications with scores below 75% may be reviewed and the applicant will be subject to an interview.
- Alternatively:
    - Five GCSE/IGCSE O-level subjects + 2 GCE AS-level subjects with a minimum grade 'C' in all OR
    - Five GCSE/IGCSE O-level subjects + 1 GCE AS-level subject 1 + GCE A-level subject with a minimum grade 'D' in either Maths or Physics.

All applicants must demonstrate a competence to study using the English Language. This would normally be a minimum of: TOEFL Paper Based (500); or TOEFL CBT (173); or TOEFL IBT (61); or IELTS (5) or PTE Academic (36).

7.2 Transfer Admission Policy

Students transferring from other institutions of higher education can be admitted subject to the following conditions:

- They are transferring from a recognised and accredited institution of higher education and have successfully completed one or more semesters in that institution.
- They meet the secondary school requirements for admission at EAU.
- They meet the English language proficiency requirements of EAU.
- They submit official transcripts of their secondary school and college/university records along with syllabi and description of courses they wish to transfer. Courses taken more than five years prior to applying as a student at EAU are not transferable. Furthermore, of the total credits required to obtain a degree at EAU, a maximum of 50 percent of the required total credits can be transferred from other institutions of higher education.
- Complete and submit course equivalence application forms for the courses to be transferred.
- Pay the appropriate fees.

Transfer Credits (Course Equivalency)

A transfer applicant will receive credit for the courses s/he had completed at the previous institute of higher education provided that:

1. His/her cumulative grade point average is above 2.0 or equivalent (according to the nature of the programme in which they previously enrolled) unless transferring to a programme in a field different from the one from which the student is transferring.

2. S/he had obtained a grade of 'C' or better, or equivalent, in the courses that are considered for equivalency.
3. The courses completed at the previous institute have equivalent courses in the student's proposed programme of study at EAU. This includes the number of credit hours, contents and level of the course.
4. S/he completes the transfer application and submits all the necessary supporting documents to the Admission and Registration Department during the time frame outlined in the academic calendar.

All transfer students must complete their transfer file to ensure that the transfer credits are awarded to them during their first semester at EAU.

Decisions pertaining to credits awarded can be made only by the appropriate Faculty at EAU. The Admission and Registration Department will communicate the outcome of the evaluation to the student.

Transferred courses are not included in the calculation of the student's Cumulative Grade Point Average (CGPA).

7.3 Advanced Standing Policy

EAU does not award credit through Advanced Standing.

7.4 Recognition of Prior Learning Policy

EAU does not award credit based on Recognition of Prior Learning, for the academic programmes, as defined by Clause 6.5 of the CAA 2019 Standards.

7.5 Documents Required for Admission

1. Completed application form.
2. Official secondary school certificate or its equivalent certified by the appropriate authorities.
3. A photocopy of the applicant's passport.
4. Four recent, coloured, passport-sized photographs.
5. A TOEFL (Test of English as Foreign Language) or IELTS (International English Language Testing System) test result.

7.6 Application Procedure

Applicants who would like to join an undergraduate academic/applied programme at EAU shall follow the procedure given below:

- Submit the completed application form along with all required documents to the Admission and Registration Department during the admission period that is specified in the academic calendar.

- Pay the appropriate fees.

8. Withdrawal & Re-Admission

8.1 Add/Drop

Students are allowed to add and/or drop courses during a period specified in the academic calendar. A Student who wants to add or drop courses need to consult with their respective academic advisors and get their approval. In a course for which more than one section is offered, students must attend classes in the section for which they have registered. A student wishing to change his/her section needs to comply with the add and drop procedure. Add and drop transactions are not recorded in the students' transcripts.

8.2 Suspension of Registration

A student is permitted to suspend his/her registration provided that s/he has completed at least one semester of study at EAU. The total number of semesters for which the registration can be suspended is two (2) semesters. A student who wants to suspend his/her registration must inform the Registration Department in writing after consulting with his/her academic advisor and obtaining the approval of the Programme Co-ordinator. A student requesting to suspend his/her registration after the end of the add and drop period in a semester, for which s/he has registered courses, will receive a grade of W or LW, on these courses, depending on the date s/he submits the request. A refund may apply as per the refund policy.

8.3 Withdrawal

Students are permitted to withdraw from courses after the end of the add and drop period and no later than the end of the 10th week of classes. A student who wants to withdraw from a course needs to consult with and get the approval of his/her academic advisor as well as complete the appropriate withdrawal form and submit it to the Registration Office. Students are expected to maintain a minimum of 12 credit hours, but, under special circumstances, may be allowed to drop below 12 credits, with the approval of the Faculty Dean and based on recommendation of the Programme Co-ordinator. A grade of (W) will be recorded on the transcript for the course from which the student has withdrawn but will not impact the student's GPA. A refund may apply as per the refund policy.

A student withdrawing from a course as of the 11th week of study and until the last day of classes will be granted a Late Withdrawal (LW) and a grade of (LW) will be recorded on his/her transcript. The student will receive 0.00 points for the LW grade, and this will be included in the calculation of student's GPA.

A student who wants to formally withdraw from the University must complete the appropriate withdrawal form and submit it to the Registration Department. A student requesting to withdraw from the University after the end of the add and drop period will receive a grade of W or LW, on these courses, depending on the date s/he submits the request. A refund may apply as per the refund policy.

8.4 Withdrawal without Notice

In the event a student fails to register courses or submit a request for suspension of registration for any semester, s/he will be placed on the "Withdrawal without Notice" category. A student placed on this category for one semester may be allowed to register for the second semester provided that s/he submits a written request to the Registration Department to regulate his/her academic status. A student placed on this category for two consecutive semesters will have to reapply for admission and pay a new registration fee.

8.5 Re-admission

A student who has suspended his registration for a period of no more than two semesters may continue at the University after filling a re-instatement form at the Registration Department. The student need not pay any application or admission fees. The student will maintain his original ID number.

A student who has withdrawn from the University may re-apply to the University for the Same Programme s/he withdrew from or to any other programme of study. The student's admission will be subject to the admission policy and rules in force at the time of re-application. S/he will pay new admission fee.

9. Student Finance Policy

9.1 Registration Fee

New student applicants are required to pay a non-refundable registration fee of AED 2,625 (including VAT 5%) along with the tuition fee, once the student applicant is accepted in the programme of study.

Payment of new registration fees will not apply to students who completed a foundation programme and were accepted in any other programme or to those students who transferred from academic to vocational/applied programmes or vice versa.

Students who withdraw from a university programme are not entitle for a registration fee refund. A student who has withdrawn from the University and reapplies to any of EAU programmes, will be liable for a new registration fee.

The Vice Chancellor may at his discretion vary the terms of the refund policy dependent on the individual circumstances.

9.1.1 Reservation Fee

To secure a place in a programme, students may be required to pay a reservation fee of AED 10,000 which will be deducted from their first fee. This fee is non-refundable.

The Vice Chancellor may at his discretion vary the terms of the refund policy dependent on the individual circumstances.

9.2 Tuition Fees

Tuition fees of the current undergraduate academic/applied programmes, 2024-2025, are shown in the table below.

Tuition Fees (2024-2025)		
Programme	**Tuition Fee (AED)** *Tuition Fees inclusive of VAT 5%*	
Faculty of Engineering		
Bachelor of Science in Aeronautical Engineering	80,703	Per Year
Applied Bachelor in Aerospace Engineering	80,703	Per Year
Applied Bachelor in Avionics Engineering	80,703	Per Year
Applied Bachelor in Mechanical Engineering	80,703	Per Year
Applied Bachelor in Aircraft Maintenance Engineering	87,980	Per year - First 2.5 years
	49,613	Per year -Last 2 years
Higher Diploma in Aircraft Maintenance	87,980	Per Year
Faculty of Business Management		
Bachelor of Business Administration in Aviation Management	77,396	Per year
Bachelor of Business Administration in Global Logistics and Supply Chain Management	77,396	Per year
Higher Diploma in Business Management	52,500	Per year
Faculty of Mathematics and Data Science		
Bachelor of Science in Computer Science – Artificial Intelligence	80,703	Per year
Bachelor of Science in Computer Science – Data Science	80,703	Per year

Fees are subject to change without prior notice. One Academic Year covers 2 Semester period. The duration of Undergraduate Programmes includes Summer Courses and Extra Credit Hours.

For students in the Undergraduate Programmes, the tuition fee per semester allows students to register for a minimum of five courses or 15 credit hours. A supplementary tuition fee per credit hour applies to those students who will be registering for more than five courses or more than 15 credit hours. Tuition fees for summer courses are also calculated on a per credit hour basis.

Additional fees are applicable when retaking a course or more. The additional fee is charged per course whether repeating a semester or a year or enrolling for an additional course.

9.3 Service Charges

The charges for various services provided to students in the University are given in the following table:

Description	**AED**
Official Documents	
EAU Certificate (Re-print)	250
Certificate Amendments	250
Student ID Card (Re-print)	250
Airport Pass (for OJT Students)	60

EAU Official Transcript	150
Assignment Cover Page (Re-print)	50
Official Letter (English or Arabic)	30
Accommodation Charges *Inclusive of 5% VAT*	
Single En-Suite Room (Monthly rate*)	2,363
Visa Charges *Inclusive of 5% VAT; excluding visa deposit – N/A*	
Admin charges	525
Visa Issuance (Students inside UAE)	2,888
Visa Issuance (Students outside UAE)	2,363
Visa Amendment (Applicable to students inside UAE)	1,050
Health Insurance	1,750
Visa Renewal (1 Year)	577
Visa Cancellation (Inside UAE)	263
Visa Cancellation (Outside UAE)	525
Visa Deposit	5,000
Others	
OJT Fee	2,000
Airport Pass	620
Re-sit Exam (per subject)	1,500
Resubmission of Assignment	1,500
Late registration fee	2,000

9.4 Payment Policy

Registration and tuition fees are due immediately upon the acceptance of the offer letter. Registration in the respective programme will only be confirmed upon receipt of payment. Tuition fees must be paid either on a full programme or on yearly basis.

Students must arrange full tuition fee payments at the time of registration in one payment. If tuition fee payments are not made after the registration deadline, students will not be considered enrolled in the programme of study and will not be permitted to attend classes. Instalment plans will be offered if requested by students with the following approvals:

- The Finance Manager if it is up to 2 instalments per semester
- The Vice-Chancellor if it is more than 2 instalments per semester

During the course period, the University reserves the right to suspend a student from class, refuse to permit the student to take examinations or withhold a student's grades until the fees due are paid in full. After completion of any programme, official certificates, letters and other requested official documents from the University will not be issued if there are remaining fees unpaid.

Students with overdue or delinquent accounts from the previous academic year or programme (in cases of programme transfers) will not be allowed to register for the next academic year or programme unless

satisfactory payment arrangements with the EAU Accounts Office are made, and approved by the Vice-Chancellor.

9.5 Mode of Payment

EAU accepts cash, card, cash deposit, bank transfer or cheque drawn only in local banks in UAE Dirhams for the payment of fees. Please take note that any charges incurred due to late payments will be added to the total amount of fees due.

Fees may be deposited or transferred directly to the following bank account:

Account Title	Emirates Aviation University
Account Number	101 200 568 1805
Bank	Emirates-NBD PJSC
Branch	Al Ithihad, Dubai, UAE
Swift Code	EBILAEAD
IBAN	AE110260001012005681805

IBAN is mandatory for all transfers made in UAE. Copy of the deposit slip or bank transfer confirmation (SWIFT or MT-103 form which can be obtained from the bank) must be submitted to the EAU Accounts Office upon remittance of fees either in person, email, by post or by fax. Bank charges and transfer fees may apply from the bank and students must ensure that the amount transferred will not be reduced with these charges.

9.6 Suspension of Registration & Withdrawal Policy

In the event that a student wishes to suspend registration or withdraw from the programme of study, s/he must submit a withdrawal form to the Registration Department. Fees will be refunded only after the withdrawal form has been submitted and the necessary approvals obtained. Fees will not be refunded to students who are suspended or expelled from the University due to disciplinary action.

Withdrawal forms can be obtained from the Registration Department and may be submitted by the student, parents or sponsor.

9.7 Refund Policy

The Vice Chancellor may at his discretion vary the terms of the refund dependent on the individual circumstances of the person involved. Any such variation will need to be supported by a written representation to the Vice Chancellor.

The Vice Chancellor’s decision is final and no further appeals are permitted.

Agreed refund of tuition fees will be processed in a timely manner. Students must provide written proof that all cheques submitted have been cleared by the University. Where a student is in receipt of an EAU visa, any refund of fees paid will only be considered once proof is provided that the visa has

been cancelled. Failure to do so will prevent any refund from proceeding. Registration and Reservation fee are non-refundable.

Refund of tuition fees will be processed within 30 working days from the date the refund was requested. A proof of cheque clearance must be provided for cheque payments. Refund of fees paid by credit card will be credited back to the card account.

9.7.1 Undergraduate Full-time Programmes

For Semester Programmes

- Withdrawal after registration and within week one of the semester - refund of 50% of the semester fees
- Withdrawal during week two to five of the semester - refund of 25% of the semester fees
- Withdrawal after week five of the semester - no refund.

The Vice Chancellor may at his discretion vary the terms of the refund policy dependent on the individual circumstances.

9.7.2 Undergraduate Part-time Programmes

- Withdrawal after registration - Students must pay tuition fees of each module covered.
- In case the amount paid or deducted from salary exceeds the fees due based on the number of modules attended, such excess fees, regardless of the amount, will not be refunded if a student neglects to formally withdraw from the program after six months from the last module attended.
- The same policy will apply to those students availing of the salary deduction scheme for Emirates Staff wherein the total amount due will be continuously deducted from salary or settled in the final pay in case of resignation.

9.8 Scholarships

EAU offers scholarships to assist academically distinguished in financing their undergraduate education. Details, requirements, and procedures can be obtained from the Admission and Registration Department.

10. Student Services

EAU provides its students with a variety of services that include academic advising, professional counselling, and a career development programme as well as recreational facilities and physical resources that include a library, computer laboratories, a student lounge, prayer rooms and cafeteria.

More details, on the services offered to students, are provided in the EAU Student Handbook - UG Programmes 2024-2025.

11. Student Rights & Responsibilities

11.1 Student Rights

1. Each member of EAU has academic freedom, personal rights and liberties. The University treats every member with due fairness.
2. Admission to the University and the University's services, facilities and activities are open to all students without regard to race, gender or national origin.
3. The freedom of students to learn and to evaluate ideas and concepts is basic to the educational process.
4. Students are free to discuss, to express opinions and to hear expression of diverse opinions. Such expression of opinions and discussion must be accomplished without disrupting operations of the University.
5. Students have a right to be evaluated in courses solely on the basis of their performance in meeting appropriate academic criteria established for the course.
6. Students are free to form and join associations with other University students provided such organisations are in conformity with the purpose of the University and conform to established University regulations and UAE laws.
7. In the administration of disciplinary matters, the concerned parties shall be accorded procedural fairness. In such situations, whether formal or informal, the fundamental principles of due process shall be recognised.
8. Students have the right to appeal for hearing their grievances.

11.2 Student Responsibilities

As part of the University community, each student enjoys social, cultural and educational opportunities. S/he also agrees to abide by the regulations and standards of conduct operative in the University community. Becoming a member of this community implies a positive responsibility toward the well-being of the entire community. Students at EAU are expected to fulfil the following responsibilities:

1. Students shall act in a civil and responsible manner that is supportive of the educational process. Disruption of the education process by a student or group of students denies all other members of the University community their individual educational rights.
2. Students shall accept responsibility for their actions and serve as positive role models for others.
3. Students shall abide by the laws, rules and regulations. Obedience to Dubai and UAE laws and to University regulations is expected of each member of the University community.
4. Students shall share and agree to advance the purpose of the University. They shall contribute in promoting an environment that is conducive to learning and nurturing a sense of shared and mutual community responsibility.

5. Students are expected to have respect for truth, honesty and integrity in all their activities at the University.
6. Students are expected to demonstrate high moral standards. Each student is expected to give consideration to the highest standards of conduct and character. No one should either offend the wider community or infringe upon the rights and privileges of others.
7. Each student must recognise that his/her actions and values reflect upon the University community.

11.3 Student Code of Conduct

11.3.1 Student Dress Code

1. Students are requested to dress conservatively respecting local culture.
2. Male students should either wear national dress or long trousers and must have their upper arms and shoulders covered. They are not permitted to wear earrings or body piercings.
3. Female students should wear national dress or skirts covering the knees or long trousers. Upper arms must be covered, and acceptable, conservative dress must be maintained at all times.
4. Slippers and sandals are not permitted on campus.
5. T-shirts / trousers bearing images or implying messages which are not in accordance with the UAE culture will not be tolerated. Students who do not meet the dress code will be prevented from attending class and may face disciplinary action.
6. Male students with long hair or spikes will not be permitted in workshops and will not be permitted for On-Job-Training (OJT). Female students are required to tie their hair when in the workshop or OJT facilities at all times. *(Excluding Business and Computer Science Students).*
7. Students not conforming to the dress code of the University will not be permitted to attend classes and will be marked absent.
8. Students not wearing safety shoes and overalls will not be permitted in the workshops and On-Job-Training (OJT) facilities. *(Excluding Business and Computer Science Students).*
9. Students must ensure they take care of their personal hygiene.

11.3.2 Misconduct

The following acts of misconduct are subject to disciplinary action:

1. In view of the cultural norms of Dubai and the UAE, physical contact between male and female students is strictly prohibited.
2. Inappropriate dress.
3. Abuse, verbal or physical, of any person on the University premises or at any event or function sponsored by the University.
4. Reckless and unruly damage of University premises or property.

5. Theft in any form or unauthorised taking of University property, or property belonging to any member of the University or any visitor to the University.
6. Fraud in any form, such as alteration or misuse of University records, or unauthorised use of documents with intent to deceive.
7. Intentional obstruction or disruption of teaching or teaching-related activities.
8. Entering, or attempting to enter, University premises without authorisation.
9. Failure to comply with published policies or regulations on the use of University facilities.
10. Alcohol and drug violations as defined by University policy and the laws of Dubai and the UAE.
11. Smoking inside any of the buildings on campus. Smoking is only permitted in the external designated smoking areas.
12. Use or possession of prohibited material such as fireworks, explosives or weapons on University premises.
13. Gambling or any other illegal activity on University premises or at any function sponsored by the University.
14. Unauthorised use of the University name and/or its property by any person or organisation.
15. Harassment or intimidation.
16. Abuse or misuse of any University computer and its equipment, such as theft of parts, deleting information, internet theft or knowingly introducing a computer virus.
17. Failure to comply with the direction of University staff, faculty or other officials in the performance of their duties.
18. Violations of traffic laws on campus such as reckless driving and unauthorised parking inside the University grounds.
19. Violations of Dubai or UAE law.

Any violation of rules and regulations or misconduct will result in a disciplinary action taken against the student which ranges from a verbal warning to suspension or even dismissal from the University. All records concerning violation of the Code of Conduct or academic integrity rules will be maintained for a period of at least five years. In case of severe violations resulting in suspension or dismissal, the penalty will become a permanent part of the student record and will be maintained indefinitely.

12. Complaint Proceedings

Any member of the University community may file a complaint against a student or group of students, to the Faculty Dean, if s/he feels that there is a violation of his/her rights or the Student Code of Conduct. The complaint should be a concise and complete statement of allegations. Based on the information provided, the Faculty Dean, or his designee, will forward the complaint to the Disciplinary Committee, which in turn will determine whether a violation has occurred, meet with the student(s)

and decide on the sanctions or a further course of action. The concerned student will be notified in writing of the decisions taken and disciplinary actions levied, if any.

A student may appeal to the Vice-Chancellor regarding any disciplinary action taken against him/her. All appeals must be in writing and submitted to the Vice-Chancellor office within seven working days after the decision is delivered. The Vice-Chancellor will review the appeal, determine its viability and decide the course of action.

13. Student Academic Integrity Policy

13.1 Academic Dishonesty

Students at EAU are expected to act responsibly in all their academic pursuits. They must adhere to the highest standards of academic integrity in all their work and should not attempt to violate the academic integrity rules. Academic violations include, but are not limited to, the following:

1. Dishonesty in class assignments and projects.
2. Cheating or attempting to cheat or helping others cheat in examinations.
3. Plagiarism; to plagiarise is to steal or pass off as one's own (the idea or words of another); use (a created production) without crediting the source; to commit literary theft; present as new and original an idea or product derived from an existing source (Webster's Third New International Dictionary of the English Language, Unabridged, p. 1728). Plagiarism may involve using the ideas, images, words, statements or an entire passage of someone else without attribution. Plagiarism also includes copying or downloading articles, research papers or other material from the Internet without giving proper attribution. Students' should avoid plagiarism in all their assignments.
4. Submitting work or material prepared by another person.
5. Giving unauthorised assistance to other students in their experimental work or lab projects.
6. Complicity in any form of academic dishonesty.
7. Deliberate falsification or alteration of data or information.
8. Any act carried out with the intention of deceiving the course instructor to obtain a false grade.
9. Intentionally interfering (altering or damaging) the work of other students including course projects, laboratory experiments and computer files, etc.

13.2 Disciplinary Action

Any student who is caught and proved to have attempted to carry out any of the academically dishonest acts above shall be liable to disciplinary action. The instructor of the course will have the right to consider the student "fail" in the test or exam or the assignment in which the misconduct took place, if this act was part of the semester work. The Programme Co-ordinator will be informed of the case. If the act was during the final, end of semester, examination the case will be referred to a disciplinary committee, formed by the Faculty Dean. The committee will investigate the case and make its

recommendations to the Dean. The Dean will make the final decision with regards to the case, and if the academic dishonesty is upheld, the student will be considered "fail" in the assessment, course or in all courses registered in that semester.

14. Student Appeals & Grievance

14.1 Student Appeals

A student may appeal to the Vice-Chancellor any disciplinary action taken (including academic dismissal) against him/her. All appeals must be in writing and submitted to the Vice-Chancellor office within seven working days after the decision is delivered. The Vice-Chancellor or his designee will review the appeal, determine its viability and decide the course of action.

14.2 Student Grievance

EAU is committed to treating all students equitably and fairly. It does not differentiate between students on the basis of race, colour, religion, gender and national origin. It is the policy of the University that students shall be free from the effects of misconduct by other members of the University community, including faculty members and University officials. Accordingly, EAU has developed regulations and procedures regarding student grievances whereby students are given the opportunity to appeal for hearing their grievances.

A grievance arises when a student has reasons to believe that s/he has been treated in an arbitrary or discriminatory manner or subjected to inappropriate behaviour by an official member of the University community. While the students have the right to bring a grievance forward against the concerned official, they are encouraged to first attempt a good-faith resolution of the grievance. This can be achieved by either direct discussions with the concerned official or by bringing the matter to the attention of his/her academic advisor or the head of the unit or Department in which the grievance arises. If such attempts do not succeed in settling the dispute amicably or the student decides to proceed directly, s/he must initiate the formal process within three weeks of the incident in dispute. This is done by submitting a formal grievance in writing to the Faculty Dean. This written grievance must include the following:

1. Name, ID number, Faculty /Programme and phone number of the student submitting the grievance.
2. Identification of the office or individual(s) against whom the grievance is brought.
3. A description of the incident that caused this grievance.
4. The date, time and location of the incident.
5. A listing of all individuals who witnessed any part of the incident in dispute.

Upon receipt of the formal grievance, the Faculty Dean shall form a committee to investigate the dispute. The committee shall carry out detailed investigations including interviews with the concerned parties and witnesses from both sides. Depending upon the grievance, pertinent data and information

may also be gathered by the committee. At the completion of the investigation, the committee shall submit its report with appropriate recommendations to the Faculty Dean who will take the decision, to be communicated to both parties.

If the grievant is not satisfied with the decision, s/he may seek relief through direct appeal to the Vice-Chancellor within two weeks of receiving the decision. The decision of the Vice-Chancellor shall be final.

15. The Educational Programmes

15.1 Course Credits

All academic courses are evaluated in credits. Normally, each credit hour represents 50 minutes of contact class instruction per week in a semester of 15 weeks, 120 minutes of laboratory experience per week in a semester, or two 50-minutes tutorial sessions per week in a semester. Students are expected to spend two hours outside of class in independent learning or specific course assignment for every hour in class.

15.2 Degree & Programme Completion Requirements

Undergraduate Academic Programmes:

A student will be awarded the bachelor/higher diploma/diploma degree after fulfilling the following requirements:

1. Complete all the programme requirements (courses, internship, etc.), as specified in the programme curriculum, which is included in Appendix A.
2. Accumulate a minimum overall grade point average (CGPA) of 2.0 (on a 4.0 scale).

The curriculum of each programme that is included in Appendix A must specify courses, prerequisites and distribution of credits within the programme.

Transfer Credits

A maximum of fifty percent (50%) of the total credits required to obtain a degree at EAU can be transferred from other institutions of higher education, subject to EAU Transfer Admission Policy (Section 7.2). Furthermore, the majority of the final thirty credit hours must be completed at EAU.

Minimum and Maximum Periods of Enrolment

The baccalaureate degree programmes offered by EAU normally require eight regular semesters (four years), to fulfil all the graduation requirements. For these programmes, the minimum study period is four regular years, while the maximum allowed time is seven years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good

standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

The higher diploma degree programmes offered by EAU normally require six regular semesters (three years), to fulfil all the graduation requirements. For these programmes, the minimum study period is three regular years, while the maximum allowed time is six years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

The diploma degree programs offered by EAU normally require four regular semesters (two years), to fulfil all the graduation requirements. For these programmes, the minimum study period is two regular years, while the maximum allowed time is five years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

Maintaining Good Academic Standing

Undergraduate students who are enrolled in an EAU academic programme are required to maintain a CGPA of 2.0 (on a 4.0 scale) for satisfactory performance and graduation. The Academic Probation & Dismissal Policy is outlined in Section 17.3.

Merit of Degree

The merit of the degree upon graduation is determined on the final CGPA and is defined in the following table:

CGPA	Merit
From 3.80 to 4.0	Excellent with Honours
From 3.50 to 3.79	Excellent
From 3.0 to 3.49	Very Good
From 2.50 to 2.99	Good
From 2.0 to 2.49	Satisfactory

Undergraduate Applied Programmes

A student will be awarded the Applied Bachelor/Advanced Diploma/Diploma after fulfilling the following requirements:

1. Complete all the programme requirements (courses, internship, etc.), as specified in the programme curriculum, which is included in Appendix C.

2. Accumulate a minimum overall grade point average (CGPA) of 2.0 (on a 4.0 scale).

Transfer Credits

A maximum of fifty percent (50%) of the total credits required to obtain a degree at EAU can be transferred from other institutions of higher education, subject to EAU Transfer Admission Policy (Clause 6.1.4.2). Furthermore, the majority of the final thirty credit hours must be completed at EAU.

Minimum and Maximum Periods of Enrolment

The Applied Bachelor degree programmes offered by EAU normally require eight regular semesters (four years), to fulfil all the graduation requirements. For these programmes, the minimum study period is four regular years, while the maximum allowed time is seven years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

The Advanced Diploma degree programmes offered by EAU normally require six regular semesters (three years), to fulfil all the graduation requirements. For these programmes, the minimum study period is three regular years, while the maximum allowed time is six years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

The Diploma degree programs offered by EAU normally require four regular semesters (two years), to fulfil all the graduation requirements. For these programmes, the minimum study period is two regular years, while the maximum allowed time is five years from admission to EAU as an undergraduate student including any period of approved registration suspension. A student in good standing could be allowed to suspend his/her registration for up to two semesters. Only in exceptional cases, an extension of up to two semesters may be granted by the Faculty Dean upon the recommendation of the Programme Co-ordinator and the approval of the Faculty Council.

Maintaining Good Academic Standing

Undergraduate students who are enrolled in an EAU Applied programme are required to maintain a CGPA of 2.0 (on a 4.0 scale) for satisfactory performance and graduation. The Academic Probation & Dismissal Policy is outlined in section 17.3.

Merit of Degree

The merit of the degree upon graduation is determined on the final CGPA and is defined in the following table:

CGPA	Merit
From 3.80 to 4.0	Excellent with Honours
From 3.50 to 3.79	Excellent
From 3.0 to 3.49	Very Good
From 2.50 to 2.99	Good
From 2.0 to 2.49	Satisfactory

15.3 Programme Learning Outcomes & Alignment to the UAE Qualification Framework

The learning outcomes of each undergraduate academic/applied programmes, offered by EAU, are shown in Appendix B together with a matrix linking those to the appropriate level of the National Learning Outcomes of the UAE Qualification Framework.

15.4 Course Descriptions

Business Courses

BUS 1010 Math for Business 3 Cr. Hrs.
This course will revise basic mathematical concepts including functions, differentiation, matrices and probability but introduces them in new contexts including interest rates, exchange rates, future and present values and use of statistical processes for business purposes.

BUS 1015 Microeconomics 3 Cr. Hrs.
This course deals with the fundamentals of economic theory at micro level including an overview of the market economy, the theory of supply and demand for goods and factors (e.g. labour), the organisation of the firm and its market, and the effects of degrees of competition in different market types.

BUS 1020 Fundamental of Business 3 Cr. Hrs.
This course covers all aspects of the external and internal business environment. It introduces the student to ethics and socially responsibility in business, different types of business ownership and the management and organisation of contemporary businesses.

BUS 1030 Principles and Practice of Management 3 Cr. Hrs.
The purpose of this course is to provide students with an overview of contemporary management principles, practices and challenges because of changing organisational structures, globalisation, and technological advancements. This course will help understand some of the issues involved in managing and being managed so that students can develop the knowledge and competence needed to ultimately be an effective manager.
Prerequisites: BUS 1020

BUS 1045 Financial Accounting 3 Cr. Hrs.

This course covers the accounting processes of double entry bookkeeping, preparation of trial balance, income statement and balance sheet, including adjustments needed. This course will help the student to appreciate and understand how Income Statements and Balance Sheets are prepared by airline companies.
Prerequisite: BUS 1010

BUS 1050 Principles and Practice of Marketing 3 Cr. Hrs.
This course covers the definitions and principles of marketing, the micro and macro contexts for marketing, as well as consumer and organisational behaviour, target marketing and the marketing mix.
Prerequisites: BUS 1020

BUS 2015 Macroeconomics 3 Cr. Hrs.
This course covers an overview of economic theory at a macro level including origin and issues of macroeconomics, macroeconomic schools of thought, measurement of GDP, aggregate demand, aggregate supply, money, supply and demand for money, interest rate determination, the multiplier effect, employment, inflation and various tools of macroeconomics policy, government budget, monetary policy, fiscal policy and economic growth.
Prerequisite: BUS 1015

BUS 2020 Business Communication 3 Cr. Hrs.
This course covers a range of advanced communication skills in English to be an effective communicator in the workplace. It includes persuasive communication, report writing, verbal and non-verbal communication skills, meeting skills and cultural communication differences.
Prerequisite: GEN 1010

BUS 2030 Statistics for Business 3 Cr. Hrs.
This course encompasses techniques for data collection, presenting data in table and charts, use of numerical descriptive measures such as: measures of central tendency (Mean, Median, Mode), variation and shape (range, interquartile range, variance and standard deviation), covariance and coefficient of correlation and regression line, probability, discrete and continuous random variables, sampling distributions, hypothesis testing and confidence intervals.
Prerequisites: BUS 1010

BUS 2040 Corporate Finance 3 Cr. Hrs.
This course deals with basic aspects of Corporate Finance in terms of sources of finance, assets and liabilities and how to interpret financial statements for decision making purposes, risk analysis, asset evaluation and capital budgeting.
Prerequisites: BUS 1045

BUS 3010 Operations Management 3 Cr. Hrs.

This course is an introduction to the concepts, principles, problems, and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organisation. Topics include operations strategy, process design, capacity planning, facilities location and design, forecasting, production scheduling, inventory control, quality assurance, and sustainability management.

BUS 3020 Management Information Systems 3 Cr. Hrs.

This course provides the student with fundamental knowledge of management information systems and their concepts including the use of information systems for management decision-making and the impact of information systems on management.

Prerequisites: GEN 1030

BUS 3030 Research Methods 3 Cr. Hrs.

This course provides a detailed and comprehensive overview of research techniques and methods including management problem solving and research, selection of a topic area, planning the project, experimental and survey research, data analysis and presentation and evaluation criteria.

BUS 3035 Business Law 3 Cr. Hrs.

The course provides a general introduction to the legal framework and environment that affects individuals, businesses and business transactions. It also outlines the specific consideration with respect to commercial contracts, consumer protection and the formation of businesses.

BUS 3045 Internship 3 Cr. Hrs.

This course assists the student to work and learn in a professional environment through direct interface with the industry professionals. The student will be able to apply the knowledge gained from the classroom to a work situation. This course also provides the student with extra knowledge and practical experience of the benefits and challenges of the real world of work.

Prerequisites: Completion of 75 Cr. Hrs.

BUS 4010 Management Accounting 3 Cr. Hrs.

This course deals with the basic aspects of management accounting in terms of classification of costs, using accounting information in planning, controlling and for decision making purposes.

Prerequisite: BUS 1045

BUS 4015 Project Management 3 Cr. Hrs.

This course prepares the student for managing various types of projects from the point at which a particular project is conceived through to its eventual completion.

Prerequisite: BUS 3010

BUS 4055 Strategic Management 3 Cr. Hrs.

This course includes the vocabulary and development of strategy, the processes of strategic analysis (internal and environmental), generic and alternative strategic choices, as well as planning resources for implementation and management of the change process.

Prerequisites: BUS 1020 & BUS 1050

Aviation Management Courses

AVN 1010 The Air Transport Industry 3 Cr. Hrs.

This course focuses in particular on the characteristics and trends of the airline industry, the international nature of the air transport activities, the organisation of the air transport industry, the economic characteristics of airlines, regulation and deregulation.

AVN 2030 Airline Operations 3 Cr. Hrs.

This course covers the key operational aspects of airline operations, including operations specifications, airline organisation, operating manuals, flight crew requirements, training programs, flight and duty time limitations, airplane operations, airworthiness requirements, dispatching and flight release duties, as well as other operations related aspects.

Prerequisite: AVN 1010

AVN 2040 Airport Operations 3 Cr. Hrs.

This course provides an introductory overview of the operations at typical international airports, covering both airside and landside including functions, systems and controls, activities, arrivals and departures.

Prerequisite: AVN 1010

AVN 2060 Air Transport Team Project 3 Cr. Hrs.

This course will examine the complexities and detailed considerations to be taken into account when preparing a business proposal in the air transport industry, focusing on costs, resources and risk analysis.

Prerequisite: AVN 1010, BUS 1045

AVN 3045 Air Transport Quality & Safety 3 Cr. Hrs.

This course covers a range of safety, security and quality considerations in aviation including regulation and quality management, measurements, analysis and improvement, associated documentation and the 'cost' of failure.

AVN 3050 Human Factors in Aviation 3 Cr. Hrs.

This course analyses the way in which human factors function in the flight situation, with regard to pilots and aircraft staff.

Prerequisites: AVN 2030, AVN 2040

AVN 4010 Air Transport Economics 3 Cr. Hrs.

This course is designed to provide a comprehensive grounding in air transport economics ranging from the economics of the global airline business to the details of route planning, ticket pricing and passenger demand.
Prerequisites: BUS 1015, BUS 2040

AVN 4020 Airline Management 3 Cr. Hrs.
This course provides a detailed examination of airline management activities with regard to airline management and organisation, airline marketing, airline pricing, demand and output determination, air cargo and principles of airline scheduling.
Prerequisites: AVN 2030

AVN 4025 Airport Management 3 Cr. Hrs.
This course provides an introductory overview of the operations on typical international airports, covering both airside and landside including functions, systems and controls, activities, arrivals and departures.
Prerequisites: AVN 2040

AVN 4030 Research Project 3 Cr. Hrs.
This course enables the student to examine a research topic of their choice related to the air transport industry and carry out detailed relevant research, present the findings and draw reasoned supported conclusions to a level acceptable by the project supervisor and the designated review panel.
Prerequisites: BUS 3030 & Completion of 90 Cr. Hrs.

AVN 4060 Air Transport Management (Capstone) 3 Cr. Hrs.
This course consolidates the core material of the aviation management concentration. It reminds the student of the interaction in business of the areas of marketing and management, and ensures that the student understands the need for systems approach to aviation related business problems. Since it is largely case study based, it enables the student to consider real life situations.
Prerequisites: Completion of 90 Cr. Hrs.

AVN 4070 Airline Route and Fleet Planning 3 Cr. Hrs.
This course provides a detailed examination of aircraft performance analysis, route planning and operation, crew scheduling, cost and revenue considerations in route planning, fleet selection and optimisation of networks and fleet.
Prerequisites: AVN 2030

AVN 3010 Aircraft Design and Performance 3 Cr. Hrs.
This course provides a brief introduction to aircraft design with emphasis on fundamental concepts and aircraft performance for non-engineering students. The topics covered include the philosophy of aircraft design, propeller-driven/jet-propelled aircraft design, subsonic/supersonic aircraft design, and aircraft aerodynamics and performance analysis.

AVN 3030 Contracts and Negotiation in Air Transport 3 Cr. Hrs.

This course introduces the student to various forms of contracts within the air transport industry and to the skills required to successfully negotiate such contracts.

Prerequisites: BUS 3035

AVN 4055 Aviation Strategy 3 Cr. Hrs.

This course explores the application of business strategy principles and practice in the aviation industry with specific reference to current and future developments in the operation of international airline businesses and route development.

Prerequisites: BUS 4020

AVN 4080 Contemporary Issues in Aviation Management 3 Cr. Hrs.

This course explores the key issues facing in the aviation industry with specific reference to current and future developments. Details of airline business models are explored with focus on alliances, code-shares, low cost carriers. Network development, revenue management are taught so the student can readily apply the knowledge in airline work environment.

Prerequisites: Completion of 90 Cr. Hrs.

Global Logistics and Supply Chain Management Courses

BUS 2035 Supply Chain Management 3 Cr. Hrs.

This course illustrates the key drivers of supply chain management in order to help understand how it can contribute to creating a competitive advantage for the business.

BUS 3040 Total Quality Management 3 Cr. Hrs.

This course introduces the main principles required to manage and improve efficiency of business activities. It will generate knowledge and skills to use models and quality management methodology for the implementation of total quality management in any sphere of business. It will provide a holistic overview of performance improvement strategy.

Prerequisites: BUS 1030

MGT 3040 Customer Relationship Management 3 Cr. Hrs.

This course covers the growing importance of engaging the customer and managing customer life time relationships. Strategies for managing customer lifecycles will be explored as well as customer portfolio management and its importance for strategic management of customer relationships. The role of functional departments in customer relationship management will be explored as well as the contribution of technology in the analysis and management of customer data.

Prerequisites: BUS 1050

LSC 1010 Logistics and Distribution Management 3 Cr. Hrs.

This course provides an introduction to logistics operations. It has a focus on the integrative nature of logistics and highlights the concept of achieving competitive advantage through the strategic manipulation of resources. The importance of designing sustainable supply chains and "green" solutions is also addressed.

LSC 2060 Logistics and Supply Chain Team Project 3 Cr. Hrs.

This course examines the complexities and detailed considerations to be taken into account when preparing a business proposal, focusing on costs, resources and risk analysis.

Prerequisites: BUS 1020 & LSC 1010

LSC 3020 Warehouse and Inventory Management 3 Cr. Hrs.

This course covers aspects of the warehousing and inventory management. The course gives a comprehensive overview of all aspects of managing a warehouse and examines how to operate an efficient and cost-effective warehouse, providing guidance on using the latest technology, reducing inventory, people management, location and design.

Prerequisites: LSC 1010

LSC 3040 Retail and Manufacturing Logistics 3 Cr. Hrs.

This course aims to compare logistics operations relating to retailing and manufacturing environments.

Prerequisites: LSC 1010

MGT 3050 Business Ethics 3 Cr. Hrs.

This course will explore fundamental concepts and false assumptions in ethical issues facing corporate actors and business decision-making. It will also explore the factors, steps, and pressures that accompany making ethical business decisions and that reflect leadership integrity.

LSC 4010 Procurement and Supplier Management 3 Cr. Hrs.

The student will develop an understanding of the principles and strategies of purchasing and supplier management within organisations. The course explores a range of practical and effective measures for efficiently synchronising purchases and inventories with customer demand requirements, in order to achieve high service levels.

Prerequisites: BUS 2035

LSC 4030 Research Project 3 Cr. Hrs.

This course enables the student to examine a research topic of their choice related to the logistics and supply chain industry and carry out detailed relevant research, present the findings and draw reasoned supported conclusions to a level acceptable by the project supervisor and the designated review panel.

Prerequisites: BUS 3030 & Completion of 90 Cr. Hrs.

LSC 4060 Logistics and Supply Chain Management (Capstone) 3 Cr. Hrs.

The course provides the student with a capstone experience at the conclusion of core and required courses in their degree path. The course will include contemporary issues and emerging concepts in the supply chain and logistics management field of study. The primary purpose of this course is to allow the student to explore in greater depth a particular topic of interest within the broad thematic topics addressed in the course. Therefore, students will use their research skills, knowledge, and abilities to demonstrate their understanding of the programme objectives. Since it is largely case study based, it enables the student to consider real life situations.

Prerequisites: Completion of 90 Cr. Hrs.

LSC 4070 Global Logistics and Supply Chain Management 3 Cr. Hrs.
This course aims to bring together logistics and supply chain concepts in a global context. It enables the student to strategically evaluate a supply chain in terms of international network optimisation. The effects of globalisation are explored together with the impact of global governing organisations. At operational level, the student will be able to appreciate the implications of specific global trading methods, payment types and the role of cargo insurance as well as make broad recommendations regarding customs clearance and the role of Free-zones.
Prerequisites: BUS 2035

LSC 4015 Maritime Transport 3 Cr. Hrs.
This course aims to equip the student with the necessary understanding and skill in order to recognise the significant role of Maritime transport as a facilitator of international trade.
Prerequisites: LSC 1010

LSC 4025 Air Transport 3 Cr. Hrs.
This course provides the student with a knowledge of the main operations at airport terminals and the transportation of cargo and passengers by air.
Prerequisites: LSC 1010

LSC 4035 Land Transport 3 Cr. Hrs.
Land based transportation plays a key role in linking complex supply chains. This course examines road transport, inland waterways, pipelines and railways.
Prerequisites: LSC 1010

LSC 4050 Contemporary Issues in Logistics and SCM 3 Cr. Hrs.
This course focusses on a range of high-profile topics and trends which play a significant role in influence logistics and supply chain management.
Prerequisites: Completion of 90 Cr. Hrs.

Higher Diploma (Business Management) Courses

BM 1000 Business and the Business Environment 60GLH
Students will explore the relationships that organisations have with their various stakeholders and how the wider external environments influence and shape business decision-making. The knowledge, understanding and skill sets gained in this unit will help students to choose their own preferred areas of specialism in future studies and in their professional career.

BM 1020 Organisations and Behaviour 60GLH
The aim of this unit is to develop a student's understanding of the influence culture, politics and power have on the behaviour of others in an organisational context. Students will be in a position to apply the principles of organisational behaviour to a variety of business situations.

BM 1030 Marketing Essentials 60GLH

The unit is designed to introduce students to the principles of marketing, enabling them to develop a basic marketing plan and to employ elements of the marketing mix to achieve results. While they will learn the underpinning theories and frameworks, they will also be able to relate these to real-world examples.

BM 1050 Managing a Successful Business Project 60GLH

The project brief will be set by a centre, based on a theme provided (this will change annually). The theme and chosen project within the theme will enable students to explore and examine a relevant and current topical aspect of business in the context of the business environment. The aim of this unit is to offer students an opportunity to demonstrate the skills required for managing and implementing a project. They will undertake independent research and investigation for carrying out and executing a business project which meets appropriate business aims and objectives.

BM 1070 Management Accounting 60GLH

The overall aim of this unit is to introduce the fundamentals of management accounting which apply to the wider business environment and the organisations which operate within that environment. Students will explore how management accounting uses financial data to aid planning decisions, and the monitoring and control of finance within organisations.

BM 1080 Operations and Project Management 60GLH

The aim of this unit is to develop students' understanding of contemporary operations theory as a function of a modern organisation. Students explore key benchmarks and processes which will enable effective critique of an operation function. Students will also consider the fundamentals of project management utilising the prescribed, but well established, project life cycle.

BM 1090 Global Business Environment 60GLH

On successful completion of this unit students will have developed an understanding of the wider global environment in which organisations operate. This will enable students to add value to an organisation as they will be able to apply their knowledge in such a way that they could advise senior managers (in either large or small organisations) on global matters which they may not have ordinarily considered.

Prerequisite: BM 1000

BM 2010 Research Project 120GLH

The aim of this unit is to offer students the opportunity to engage in sustained research in a specific field of study. The unit enables students to demonstrate the capacity and ability to identify a research theme, to develop research aims, objectives and outcomes, and to present the outcomes of such research in both written and verbal formats. The unit also encourages students to reflect on their engagement in the research process during which recommendations for future, personal development are key learning points.

BM 2030 Human Resource Management 60GLH

This unit will explore the tools and techniques used in HRM to maximise the employee contribution and how to use HR methods to gain competitive advantage. Students will explore the importance of training and development in building and extending the skills base of the organisation and ensuring it is relevant to the ever-changing business environment. Students will also consider the growing importance of becoming a flexible organisation with an equally flexible labour force and become familiar with techniques of job design and with different reward systems. The unit investigates the importance of good employee relations and the ways in which employers engage with their staff and possibly with trade unions. Students will gain an understanding of the law governing HRM processes as well as the best practices which enable an employer to become an 'employer of choice' in their labour market.

Prerequisite: BM 1020

BM 2040 Management and Operations 60GLH

The aim of this unit is to help students understand the difference between the function of a manager and the role of a leader. Students will consider the characteristics, behaviours and traits which support effective management and leadership. In addition, this unit will introduce the concept of operations as both a function and a process which all organisations must adopt to conduct business. Students will be introduced to contemporary and historical theories and concepts.

BM 2100 Understanding and Leading Change 60GLH

This unit enables students to develop sufficient knowledge and understanding of leadership in the context of organisational change to make an effective and immediate contribution to the way in which an organisation determines and responds to change drivers. Students will also be in a strong position to contribute to change initiatives as well as to consider the strategies required to change resistors.

BM 1010 Financial Accounting 60GLH

Balancing the books is at the heart of all business management. The overall aim of this unit is to introduce students to essential financial accounting principles and techniques which will enable them to record and prepare basic final accounts. Students will learn how to prepare accounts for sole traders and partnerships as well as limited companies.

BM 1040 Business Law 60GLH

Students will gain knowledge of business law and examine the impact of the law on business operations and decision-making. Throughout the unit students will identify legal solutions available to business owners and assess their suitability. Their experiences in this unit will help them better understand the areas of law in which they will want to specialise. They will be able to illustrate the impact of the law on normal business operations and when registering a company and inviting shareholders to invest in it. They will gain an understanding of the law in relation to market abuse and director responsibilities. Students will be able to recognise the application of employment law between employers and employees.

BM 2000 Business Strategy 60GLH

This module aims to develop a strategic perspective of business, by taking an integrated view of the environment in which business operates. Students will understand the internal and external factors which influence strategic decisions. Students will use theoretical models and frameworks as an aid to analysis and problem solving and develop skills to evaluate evidence in -order to prepare solutions.
Prerequisite: BM1000

BM 2110 Sales Management 60GLH

This unit introduces students to the discipline of sales management for today's marketplaces. Changing dynamics between buyers and sellers, driven by the fast-paced evolution of e-commerce and globalisation, has led organisations to review and adapt their sales management approach in response to a customer driven culture.
Prerequisite: BM 1030

BM 2120 Innovation and Commercialism 60GLH

This unit aims to equip students with a comprehensive understanding of innovation and commercialisation. In today's competitive landscape it is critical that organisations continually innovate both their product offering and processes to ensure that they remain competitive in the market. Furthermore, adopting a more commercially driven approach is vital to maximise the Return on Investment (ROI).

BM 2130 Entrepreneurship and Small Business Management 60GLH

Students will learn about the influence of national culture and economy on entrepreneurship and will explore the personal characteristics of entrepreneurs and the impact of personal situational factors, including education and background. Students will also learn about the role and importance of small firms to the economy, and about social enterprise and the social economy. Students will also be expected to understand the balance of risk and reward in starting a new venture and they will investigate and reflect on their own entrepreneurial and enterprising characteristics. Examples of entrepreneurs and start-up organisations will be discussed, and students will be expected to draw on local, personal and general knowledge together with their learning to be able to identify the characteristics of entrepreneurial ventures.

Engineering Courses

ENG 1000 Introduction to Math 3 Cr. Hrs.

This course is designed for students who need to gain skills in basic mathematics. It includes topics on linear equations, inequalities, quadratic equations and their graphs, functions of one variable, trigonometric, logarithmic and exponential functions, computing limits, continuity, derivative of functions of one variable and applications. Moreover, finding integral of functions using methods of integration and applications. Finally, matrices, operation on matrices, determinants, solve systems of linear equations by matrices and a brief introduction to complex numbers.

ENG 1100 Math I 4 Cr. Hrs.

Functions of two variables, partial derivatives, double integrals in rectangular and polar coordinates. Applications of partial derivatives and double integrals. Vector calculus, dot product, cross product, vector-valued functions. Line integral, Green's Theorem.
Prerequisite: ENG 1000

ENG 1200 Math II 4 Cr. Hrs.
Matrices. Vectors and vector algebra. Matrices and applications to linear system of equations. Linear independence, eigenvalues and eigenvectors. First order differential equations, Linear second order differential equations.
Prerequisite: ENG 1100

ENG 1260 Electrical and Electronic Principles 3 Cr. Hrs.
The purpose of this course is to enable students to apply basic dc/ac circuit theory, including thevenin's, Norton's theorems, superposition theorem, ac circuits, RLC resonance circuit. Aapply basic electronic knowledge including diode operation and application, bipolar junction transistor (BJT) characteristics and bias circuits, the transistor as an amplifier, operational amplifier (op-amp) circuit and applications. The course includes laboratory demonstrations on electrical and electronic circuits.
Prerequisite: GEN 1070

ENG 2150 Statics 4 Cr. Hrs.
General Principles of Mechanics; Force Vectors; Equilibrium of a Particle; Force System Resultants; Equilibrium of Rigid Bodies; Structural Analysis of Trusses, Frames and Machines; Friction; and Center of Gravity and Centroid.
Prerequisite: ENG 1000

ENG 2210 Manufacturing Technology 3 Cr. Hrs.
This course includes classification of manufacturing process, health and safety disciplines in manufacturing environment, modern composite materials, ferrous and non-ferrous materials, modern numerical control, casting, forging, welding, and metal cutting. The course also includes workshop practical work, field visits and theoretical lectures.

ENG 2220 Introduction to Programming 3 Cr. Hrs.
Introduction to MATLAB and other programming languages, data types, operators and simple functions, modular programming, object-oriented programming, introduction to numerical methods.

ENG 2230 Dynamics 4 Cr. Hrs.
Kinematics and kinetics of a Particle: Work and Energy, Impulse and Momentum. Planar kinematics of a rigid body. Planar Kinetics of a Rigid Body: Force and Acceleration.
Prerequisite: ENG 2150

ENG 3250 Math III 3 Cr. Hrs.
Laplace transform, Inverse Laplace transform, applications to initial-value problems. Fourier series, and their convergence, Fourier series solutions in solving partial differential equations (PDEs) and

boundary-value problems. Complex numbers, complex plane, roots, complex functions, derivatives, Cauchy-Riemann equations, integrals, Cauchy's integral Theorem.
Prerequisite: ENG 1200

ENG 3260 Math IV 4 Cr. Hrs.
Preliminaries and Error Analysis, Solutions of Equations of One Variable, Iterative Methods for Solving Linear Systems, Interpolation and Polynomial Approximation, Interpolation and Polynomial Approximation, Numerical Differentiation and Approximations, Numerical Methods for Differential Equations.
Prerequisite: ENG 3250

ENG 3330 Introduction to Mechanical Design 3 Cr. Hrs.
The design process; product design specifications; conceptual design; introduction to the different machine elements; bearings; shafts; gears; belts and chain drives; seals; clutches and brakes; springs; fastening and power screws; engineering tolerance; design management and costing.

ENG 4120 Industrial Training (I) - Live Aircraft Environment (Hangar) 3 Cr. Hrs.
Industrial training is an integral part of the BSc. Aeronautical Engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 80 Credit Hours

ENG 4130 Industrial Training (II) - Engines Workshop 3 Cr. Hrs.
Industrial training is an integral part of the BSc. Aeronautical Engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 80 Credit Hours

ENG 4140 Industrial Training (III) - Cabin Workshop 3 Cr. Hrs.
Industrial training is an integral part of the BSc. Aeronautical Engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A

report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 80 Credit Hours

ENG 4150 Industrial Training (IV) - Structures & Avionics Workshop 3 Cr. Hrs.
Industrial training is an integral part of the BSc. Aeronautical Engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 80 Credit Hours

ENG 4160 Industrial Training (IV) - Wheels and Brakes Workshop 3 Cr. Hrs.
Industrial training is an integral part of the BSc. Aeronautical Engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 80 Credit Hours

ENG 1200 Digital Fundamentals 3 Cr. Hrs.
This course is an entry-level course in digital electronics covering number systems, Logic Gates, Boolean algebra, Logic Simplification, Combinational Logic Analysis, Functions of Combinational Logic, Latches, Flip-Flops, Counters, and Shift Registers. The student will analyse and design digital circuits such as combinational and sequential logic circuits. The course includes laboratory demonstrations on digital circuits as well as tutorial sessions.

ENG 2110 Statistics and Empirical Methods 3 Cr. Hrs.
Principles of discrete probability with applications to computing. Basics of descriptive statistics. Distributions, including normal (Gaussian), binomial and Poisson. Least squared concept, correlation and regression. Statistical tests most useful to software engineering: t-test, ANOVA and chi-squared. Design of experiments and testing of hypotheses. Statistical analysis of data from a variety of sources. Applications of statistics to performance analysis, reliability engineering, usability engineering, cost estimation, as well as process control evaluation.

ENG 3210 Engineering Economy 3 Cr. Hrs.
Introduction to engineering economy; cost concepts and design economics; cost estimation techniques; the time value of money; evaluating a single project; comparison and selection among alternatives; evaluating projects with the benefit-cost ratio method; breakeven and sensitivity analysis; probabilistic risk analysis.

Prerequisite: ENG 2110

ENG 4210 Engineering Management 3 Cr. Hrs.

Introduction to management challenges for engineers. The functions of engineering management: planning, organising, leading and controlling. Cost accounting for engineering managers. Financial Analysis and decision making for Managers, Engineers as managers and leaders. Aircraft Asset & Contracts Management, Effective Project activities Management, Ethics in engineering management. Marketing Management & Future trends.

Prerequisite: Completion of 60 Credit Hours or ENG 3210

Aeronautical Engineering Courses

EAE 3100 Flight Mechanics 3 Cr. Hrs.

Aircraft performance analysis: take-off, landing, climbing, gliding, turns, range and load factors; Aircraft static and dynamic stability; Longitudinal and lateral static stability; Contribution of aircraft components to longitudinal static stability; Contribution of aircraft components to lateral-directional static stability; Aircraft equations of motion. Aircraft systems of axes and axes transformations.

EAE 3250 Flight Control Systems 3 Cr. Hrs.

Introduction to linear systems and control theory which covers mathematical models of dynamical systems (state space and transfer functions), open and closed loop systems, feedback control systems, analysis of the stability of dynamic system in frequency domain and time domain, and design gain feedback with the root locus method. The course focuses on applications in flight control systems as well as experimental work in control systems.

Prerequisite: ENG 3250, ENG 1260

EAE 2300 Engineering Thermodynamics 3 Cr. Hrs.

Basics concepts and definitions in thermodynamics: work, heat; Properties of pure substances; First law of thermodynamics, applications on first law; Second law of thermodynamics: entropy, irreversibility, Carnot's principles, Carnot cycle, application of second law to steady-flow devices; Power cycles: Otto, Diesel, Brayton, and Rankine, cycles; applications on power cycles in power stations and propulsion systems.

Prerequisite: ENG 1000

EAE 2310 Heat Transfer & Combustion 3 Cr. Hrs.

Heat Transfer: Introduction, steady one-dimensional conduction, fins; Forced convection, thermal boundary layers; forced convection in internal and external flows; radiation; and design of heat exchangers. Combustion: chemical reactions for hydrocarbon fuels, chemical equilibrium, enthalpy of formation, heat of reaction, adiabatic flame temperature, and chemical kinetics.

Prerequisite: EAE 2300/ EAE 2400

EAE 2340 Strength of Materials 4 Cr. Hrs.

Concept of stress and strain, axial loading, Hooke's law, members deformation under axial loading, torsion, design of transmission shafts, pure bending, analysis and design of beams for bending, deflection of beams. Includes lab demonstrations on testing and strength of materials.
Prerequisite: ENG 2230

EAE 2355 Incompressible Aerodynamics 3 Cr. Hrs.
Differential analysis of flow: continuity, momentum and energy equations, inviscid incompressible two-dimensional flow, stream and velocity-potential functions, flow past a circular cylinder, thin airfoil theory, inviscid-incompressible flow over finite wings, multi-element lifting systems, the subsonic drag of aircraft, boundary layer concept, laminar & turbulent boundary layers, governing differential and integral equations, boundary layers without heat/mass transfer.
Prerequisite: EAE 2400

EAE 2400 Fluid Mechanics 3 Cr. Hrs.
Characteristics of a fluid, the forces exerted on surfaces by static and moving fluids, the stability of simple floating objects, the principles of conservation of mass, momentum and energy, applications of Bernoulli's equation, dimensional analysis, the PI theorem, viscous flow in ducts.
Prerequisite: ENG 1000/ GEN 1070

EAE 2810 Aircraft Propulsion I 3 Cr. Hrs.
The jet propulsion principle, mechanics and thermodynamics of gas flows, axial flow compressors, axial flow turbines, aero-thermodynamic analysis and design of inlets, combustors, and nozzles.
Prerequisite: EAE 2310
Co-requisites: EAE 3200

EAE 3200 Compressible Aerodynamics 3 Cr. Hrs.
Review of thermodynamics of gases, characteristics and governing equations of one-dimensional inviscid-compressible flow, steady one-dimensional flow without friction, steady one-dimensional flow with heat transfer, analysis of normal and oblique shock waves, analysis of expansion waves, quasi-one- dimensional flow, nozzles and diffusers, unsteady one-dimensional flow, Linearized subsonic and supersonic flows, critical Mach number, finite wings in supersonic flow.
Prerequisite: EAE 2355

EAE 3350 Materials Science and Engineering 3 Cr. Hrs.
Introduction, atomic structure, the structure of crystalline solids, imperfections in solids, diffusion, mechanical properties of metals, imperfections and strengthening mechanisms, failure, phase diagrams and transformations, characteristics of ferrous and non-ferrous metals and alloys, ceramics, polymers and composite materials. Emphasis on materials used in the aerospace industry.
Prerequisite: ENG 2150

EAE 3365 Aircraft Propulsion II 3 Cr. Hrs.

Shaft power cycles, gas turbine cycles for aircraft propulsion, prediction of off-design performance of simple gas turbine, prediction of off-design performance of twin-spool engines, matching procedure for turbofan engines, space flight and rocket engines.
Prerequisite: EAE 2810

EAE 3370 Experimental Techniques 2 Cr. Hrs.

A sequence of experiments that demonstrate basic aerodynamic theory while developing skills in the use of classic and modern experimental apparatus; the practice of good experimental technique, and the writing of experimental reports; statistical analysis of experimental data with computer applications, Topics include model design and construction, testing procedures, control surface testing, airfoil section testing, the use of wind tunnel data, scale effects, complete model testing, measurement of fluid pressure and flow rate, estimation of impact forces and momentum change applications.
Prerequisite: EAE 2400

EAE 4060 Aerospace Project I 3 Cr. Hrs.

This course is a culmination of the design experience earned by the student in the programme. It comprises several activities, such as literature survey, data acquisition and analysis, system modelling and simulation, application of computational techniques, as well as the design and manufacture of a piece of equipment for demonstration and/or experimentation. Classroom discussion subjects include legal, ethical and professional aspects of engineering practice. The project should reflect the knowledge and the skills acquired by the student throughout his study. The project is considered as a test of the student's ability to tackle a real technical problem.
Prerequisite: ENG 3330, EAE 2810, EAE 4190, EAE 3200, EAE 3250,
Co-requisites: EAE 3365, EAE 4195, EAE 4250

EAE 4065 Aerospace Project II 3 Cr. Hrs.

This course is a continuation of EAE 4060 Aerospace Project (Part I); this course is a culmination of the design experience earned by the student in the programme. It comprises several activities, such as literature survey, data acquisition and analysis, system modelling and simulation, application of computational techniques, as well as the design and manufacture of a piece of equipment for demonstration and/or experimentation. The project should reflect the knowledge and the skills acquired by the student throughout his study, and are considered as a test of his ability to tackle a technical problem.
Prerequisite: EAE 4060

EAE 4190 Aircraft Structure I 3 Cr. Hrs.

The main objective of this course is to develop in aeronautical engineering students the ability to analyse and design various load bearing structures in a logical manner and to apply to its solution fundamental principles. Students will learn advanced topics and tools in structural analysis that include: analysis and design of thin –walled structures, pressures vessels, and columns; application of Mohr's circle to the transformation of stresses and strain; application of work and energy method to the analysis and design of simple structures.
Prerequisite: EAE 2340, EAE 3350

EAE 4195 Aircraft Structure II 3 Cr. Hrs.

Review of characteristics of aircraft structures and materials, torsion, bending and flexural shear, flexural shear flow in thin-walled sections, failure criteria for isotropic materials, elastic buckling, and analysis of composite laminates.

Prerequisite: EAE 4190

EAE 4240 Flight Vehicle Dynamics & Stability 3 Cr. Hrs.

Aircraft equations of motion; small disturbance theory; stability derivatives; stick-fixed longitudinal motion and longitudinal approximation; stick-fixed lateral-directional motion and lateral-directional approximations; aircraft response to control on atmospheric inputs; design of a simple autopilot using classical and modern automatic control methods.

Prerequisite: EAE 3100, EAE 3250

EAE 4250 Aircraft Design I 3 Cr. Hrs.

Aircraft design methodology, the iterative nature of the design process, aircraft weight: take-off gross weight, empty weight, fuel weight calculation, sensitivity analysis, standard requirements, first estimation of aircraft design parameters, drag polar estimation at low speed, matching diagram, aircraft three-view and drawings, overall configuration design, fuselage design, propulsion system selection and integration, wing design considerations, empennage design considerations, landing gear design and integration, technical task preparation and team working.

Prerequisite: EAE 2150, ENG 3330, EAE 3200, EAE 4190,

Co-requisites: EAE 4195, EAE 4240

EAE 4255 Aircraft Design II 3 Cr. Hrs.

Aircraft design methodology, review of component design process, preliminary layout of an aircraft using design and calculation techniques developed in previous courses, design of a flight vehicle, including its structures, systems and mass properties, center of gravity, moment and aerodynamic center, stability and control characteristics, and vehicle subsystems, and technical communication skills and team working.

Prerequisite: EAE 4250, EAE 2810

Co-requisites: EAE 3365

EAE 3820 Modern Automatic Control 3 Cr. Hrs.

Analysis of State Space Systems, Controllability and Observability, State Space Feedback, Output Feedback, Observer Design, Discrete Control Systems, modelling digital computers, the Z transform, digital system stability, transient response in the Z domain, Optimal control, Case Studies. The course includes application of MATLAB/Simulink® in control systems analysis and design.

Prerequisite: EAE 3100

EAE 4095 Computational Fluid Dynamics 3 Cr. Hrs.

Review of Governing Differential Equations Method of Finite Differences, Discretisation of

Boundary Conditions, One-Dimensional Flow, Consistency and Stability of Different Schemes, Steady Two-Dimensional Incompressible Flow, Grid Generation in Two Dimensions, Potential-Flow Application, Evaluation of Pressure Forces on objects, Two- Dimensional Incompressible Flow.
Prerequisite: EAE 3200

EAE 4125 Aircraft Engine Simulation and Control 3 Cr. Hrs.
Steady state off-design performance, Component characteristics, Engine component matching, Development of component performance modeling, Steady state engine modeling, Engine component dynamics, Transient behavior, Dynamic engine simulation, Fuel controller development
Prerequisite: EAE 3365

EAE 4130 Design of Aircraft Engines 3 Cr. Hrs.
The Overall Design Process, Analysis Of Airplane/Engine System, Mission Constraints and Analysis, Optimisation of design point, Interactions Between Design And Off-Design Performance, Engine Sizing, Subsonic/supersonic Intake design, Axial Flow Compressor Design, Combustion Chamber Design, Axial Flow Turbine Design, Nozzle Design, Complete Configuration and Matching.
Prerequisite: EAE 3365

EAE 4150 Aircraft Maintenance Engineering 3 Cr. Hrs.
Introduction, concepts and definitions, Types of Maintenance, Aircraft Life Cycle costs, Aircraft Direct Operating costs, Maintenance Cost philosophies and economics, Maintenance Programmes and technical documents, Unscheduled Maintenance, Maintenance Safety, Component Reliability and Warranty Programmes, Aircraft defects (Cracks & Corrosion) Maintenance contracts, Production Control and overhaul shops activities work, Power plant Maintenance activities, Maintenance Costs influencing factors, certification requirements, Materials and Inventory Management, Stores and supply chain, Line Maintenance operations, IT solutions and systems linked to maintenance costs optimisation, etc.
Prerequisite: EAE 3350, EAE 2340, EAE 2810

EAE 4220 Mechanics of Composite Materials 3 Cr. Hrs.
The student will be introduced to the composite materials; Manufacturing Processes; Micromechanics of fiber reinforced materials; Ply Mechanics and stress-strain relations; Macromechanics and Stiffness Design; Failure and Strength Design; Composite Beams' design for strength and buckling.
Prerequisite: EAE 4190

EAE 4225 Finite Element Analysis 3 Cr. Hrs.
It fulfills senior design requirement for EAE students. Introduces linear finite element analysis (static and dynamic) for aerospace structures (discrete and distributed). Prediction of load, deflection, stress, and strain are discussed. Major emphasis on underlying mechanics and numerical methods are presented. Simulations are aspects via educational and commercial software (such as ANSYS and Solidworks). Selected mechanical and aerospace applications are simulated.
Prerequisite: EAE 4190

EAE 4245 Wind Turbines **3 Cr. Hrs.**

Rotor aerodynamics, 2D and 3D aerodynamics, momentum theory, blade element theory, some practical examples.

Prerequisite: EAE 2355

EAE 4260 Helicopter Aerodynamics **3 Cr. Hrs.**

This course provides the basic understanding about the rotary wing aircraft. The students will achieve both theory and practical knowledge of helicopter flight.

Prerequisite: EAE 2355

Applied Engineering Courses:

EG101 Electrical Electronic and Digital Principles **4 Cr. Hrs.**

Series and parallel RLC circuits, circuit performance, circuit theorems: Norton; Kirchhoff; Thevenin; superposition; maximum power, circuit analysis: mesh; nodal, maximum power transfer; impedance matching, single- and two-stage transistor amplifiers, digital electronic devices and families, combinational and sequential circuits.

EG102 Statics **3 Cr. Hrs.**

General Principles of Mechanics; Force Vectors; Equilibrium of a Particle; Force System Resultants; Equilibrium of Rigid Bodies; Structural Analysis of Trusses, Frames and Machines; Friction; and Center of Gravity and Centroid.

EG103 Construction and Operation of Aircraft Fluid Systems **4 Cr. Hrs.**

Principles of hydraulic fluid transmission; hydraulic fluid types and properties; components of hydraulic systems; Pneumatic system principles and components; Aircraft cabin pressurisation; aircraft air conditioning systems; Aircraft refrigeration systems; Anti icing and De-icing systems; Fluid power circuits.

EG104 Basic Thermodynamics **3 Cr. Hrs.**

Thermodynamic systems and their properties; Steady Flow Energy Equation (SFEE); Non-Flow Energy Equation (NFEE); Application of NFEE and SFEE to thermodynamic systems; Formation of steam; Gas Laws; Fourier's law of heat transfer; two and four stroke spark ignition engines; Thermodynamic cycles – Carnot cycle, Otto cycle and Diesel cycle

EG105 Aircraft Systems Principles and Applications **3 Cr. Hrs.**

Aircraft systems definition; system components; open-loop and closed-loop; transducers; block diagram reduction (G and H notation); damping and damping methods; control system response; performance monitoring; signal conditioning and amplifiers; power generation methods; actuation systems; safety aircraft power distribution.

EG106 Dynamics **3 Cr. Hrs.**

Kinematics and kinetics of a Particle: Work and Energy, Impulse and Momentum. Planar kinematics of a rigid body. Planar Kinetics of a Rigid Body: Force and Acceleration.
Prerequisite: EG102

EG107 Basic Aerodynamics 4 Cr. Hrs.
Properties and behavior of air; Principles of aerodynamics; Forces acting on aircraft; Bernoulli's equation; boundary layer; venturi; aerofoil geometry; Mach number; lift drag and pitching moments coefficients; aircraft axes; degrees of freedom.

EG108 Materials Engineering 3 Cr. Hrs.
Introduction to Engineering Materials; Microscopic and macroscopic properties of materials; Testing of materials; Structures, properties, processing and applications of Metals, Metal Alloys, Ceramics, Polymers and Composites; design and selection of engineering materials; Failure of engineering materials and its prevention; Environmental issues.

EG116 Aerospace Technology II 5 Cr. Hrs.
Principles of space flight; Principles of Helicopter flight; High speed flight theory; Normal Shock waves; Oblique Shock wave; Wind tunnel testing; boundary layer; conservation of mass, conservation of momentum; conservation od energy; major and minor frictional losses in piping system; Boundary layer
Prerequisite: EG107

EG117 Control and Instrumentation 5 Cr. Hrs.
Classical control system design; design of control systems in time domain; design of control systems in frequency domain; systems; computer simulation of continuous systems; measurement and instrumentation.
Prerequisite: EG101, MA102

EG118 Aerospace Applications 4 Cr. Hrs.
Design solution; Problem- solving techniques; Design of aerospace system or component; Analysis of aerospace problem; Aerodynamic principles; CAD and CAE techniques; Building and Testing; Project outcome analysis; Report writing; Presentation skills
Prerequisite: AE100 or AV100

MA100 Analytical Methods for Engineers 3 Cr. Hrs.
This module provides engineering students with the basic mathematical techniques in Algebra, Trigonometry, Calculus, and Statistics, required in various engineering disciplines.

MA101 Further Analytical Methods for Engineers 3 Cr. Hrs.
This module provides, more in depth, mathematical techniques that can be used in complex engineering situations, this includes: complex numbers, curves of functions, numerical integration, Iterative methods, vector analysis and first order differential equations.
Prerequisite: MA100

MA102 Advanced Mathematics 3 Cr. Hrs.

This module is designed for engineering learners at degree level. It aims to provide them with advanced analytical methods that can be needed in a range of engineering careers. The topics include: First order differential equations, Laplace transforms, Fourier series and Partial differential equations.

Prerequisite: MA101

BS100 Business Management Techniques for Engineers 3 Cr. Hrs.

Engineering management requires understanding of business management techniques in order to advance business interests. This module will provide the learner with the key knowledge and understanding of management skills required by engineering managers. Learners will apply the skills of costing, financial planning and control associated with engineered products or services.

BS101 Project Management 3 Cr. Hrs.

Project management; Project authorisation; Project success or failure factors; Project cost estimation; Feasibility study; Risk management; Organisation chart; WBS; Critical path network; Resources scheduling

Prerequisite: BS100

BS102 Total Quality Management 3 Cr. Hrs.

Principles and key themes of TQM; Inspection, Quality Control, Quality Assurance and TQM; Design a quality improvement programme; Performance measurement; Quality costing; Formal quality system and environmental management system; Contribution of marketing, design and manufacturing departments; SPC and its implementation.

IND100 Industrial Training (I) 4 Cr. Hrs.

Industrial training is an integral part of the Applied Bachelor engineering programmes and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.

Prerequisite: 70 Cr. Hrs

IND101 Industrial Training (II) 4 Cr. Hrs.

Industrial training is an integral part of the Applied Bachelor engineering programmes and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.

Prerequisite: 70 Cr. Hrs

IND102 Industrial Training (III) 4 Cr. Hrs.

Industrial training is an integral part of the Applied Bachelor engineering programmes and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.

Prerequisite: 70 Cr. Hrs

IND103 Industrial Training (IV) 4 Cr. Hrs.

Industrial training is an integral part of the Applied Bachelor engineering programmes and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.

Prerequisite: 70 Cr. Hrs

IND104 Industrial Training (V) 4 Cr. Hrs.

Industrial training is an integral part of the Applied Bachelor engineering programmes and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an industrial plant, engineering or consulting office in the UAE or abroad, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.

Prerequisite: 70 Cr. Hrs

OJT100 On Job Training I * 0 Cr. Hrs.

On Job training is an integral part of the Applied Bachelor engineering programme and its main purpose is to develop both the technical and generic skills of the students. Trainees spend Four weeks on a full-time basis in an aircraft maintenance environment, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved. Students can enrol in the OJT100 module after they complete a sum of 17 CH and before their 3rd year of study.

Prerequisite: Completion of 30 Cr. Hrs

* OJT100 – On Job Training I non credited course will be offered for those students who opt for a Diploma or Advance Diploma exit award.

Electives Courses:

EG100 Engineering Science 3 Cr. Hrs.

This module introduces students to the fundamental laws and applications of the physical sciences within engineering and how to apply this knowledge to find solutions to a variety of engineering problems. Student will be introduced to international system of units, interpreting data, static and dynamic forces, linear motion, angular motion, fluid mechanics and thermodynamic and fluid mechanics theories.

EG102 Statics 3 Cr. Hrs.

General Principles of Mechanics; Force Vectors; Equilibrium of a Particle; Force System Resultants; Equilibrium of Rigid Bodies; Structural Analysis of Trusses, Frames and Machines; Friction; and Center of Gravity and Centroid.

EG104 Basic Thermodynamics 3 Cr. Hrs.

Thermodynamic systems and their properties; Steady Flow Energy Equation (SFEE); Non-Flow Energy Equation (NFEE); Application of NFEE and SFEE to thermodynamic systems; Formation of steam; Gas Laws; Fourier's law of heat transfer; two and four stroke spark ignition engines; Thermodynamic cycles – Carnot cycle, Otto cycle and Diesel cycle

EG105 Aircraft Systems Principles and Applications 3 Cr. Hrs.

Aircraft systems definition; system components; open-loop and closed-loop; transducers; block diagram reduction (G and H notation); damping and damping methods; control system response; performance monitoring; signal conditioning and amplifiers; power generation methods; actuation systems; safety aircraft power distribution.

EG107 Basic Aerodynamics 4 Cr. Hrs.

Properties and behavior of air; Principles of aerodynamics; Forces acting on aircraft; Bernoulli's equation; boundary layer; venturi; aerofoil geometry; Mach number; lift drag and pitching moments coefficients; aircraft axes; degrees of freedom.

EG109 Engineering Design 4 Cr. Hrs.

Stakeholders; Problem Statement; Stages of Design Process; Objectives & Constraints; Design Brief; Conceptual Design; Evaluation Techniques; Recognising limitations in design; Working to specifications & standards; Materials Selection; Manufacturing processes; Safety; Ergonomics; Modelling; 2D & 3D drafting; Isometrics; Third angle methods; Orthographic projection

EG110 Health, Safety and Risk Assessment in Engineering 3 Cr. Hrs.

Regulations; health and safety; hazards; risk assessment; risk management; reporting systems; corrective actions

EG119 Mechatronics 3 Cr. Hrs.

This course is an introduction to designing mechatronic systems, which require integration of the mechanical and electrical engineering disciplines within a unified framework. Topics covered in the course include: Low-level interfacing of software with hardware; use of high-level graphical programming tools to implement real-time computation tasks; digital logic; analogue interfacing and power amplifiers; measurement and sensing; electromagnetic and optical transducers; control of mechatronic systems

Prerequisite: EG101, MA100

EG120 Robotics 3 Cr. Hrs.

Robotic systems are traditionally used in engineering to produce systems with behaviours that are highly repeatable and accurate, such as production line robots for painting, welding or assembly in the manufacturing industry. More recently, robotic technologies have also been used by engineers to produce systems that can operate in environments that are inaccessible to humans, for example collapsed buildings, deep sea oil wells, mine fields, nuclear reactors or even distant planets.

Prerequisite: EG101, MA100

EG121 Computer Aided Design and Manufacture 4 Cr. Hrs.

Computer Aided Design, Computer Aided Manufacturing, manufacturing operations, cnc programming methods, component set up, tooling, solid modelling, component drawing, and importing solid model, manufacturing simulation, data transfer, CNC machine types and inspections.

Prerequisite: AE100 or, ME100

ME107 Application of Machine Tools 3 Cr. Hrs.

Basic Elements and Mechanisms of Machine Tools; Machining Processes such as Turning, Milling, Drilling, Shaping, Slotting, Planing, Boring, Broaching, Grinding, Thread cutting and Gear Cutting Operations; Functioning of general purpose machine tools such as Lathes, Milling Machines, Drills, Shapers, Planers, Slotters, Grinders, Boring and Broaching Machines; Cutting Tools; Mechanics of Orthogonal Cutting; Tool Wear, Tool Life, and Economics of Metal Cutting; Safe Practices in the Machine Shop

ME112 Heating Ventilation and Airconditioning 3 Cr. Hrs.

HVAC air conditioning and refrigeration systems, indoor environmental quality, hearting and cooling load, energy calculation and building cooling simulation, design of fan and cooling system.

Prerequisite: ME102

ME113 Gas Dynamics 3 Cr. Hrs.

Gas dynamics is a major topic related to fluid flow, thermo-fluids, and thermodynamics; mainly within Aerospace, the oil and gas as well as the power generation industries. This module has the opportunity to give the students a global awareness of gas flow behavior in different geometries and devices. Students will be able to design systems to develop and increase the available energy in order to transform existing subsonic flow into sonic as well as supersonic conditions. In addition, students will be able to analyze fluid flow in turbines through both stators and rotors blades. Students can build

technology competencies as they gain a global perspective on different types of flow in supersonic devices. The module is analytical as well as technical in its nature, and the students are required to demonstrate their mastery of thermodynamics, fluid mechanics, materials science, and mathematics in applying their critical thinking and problem-solving skills.
Prerequisite: ME104

Aerospace Engineering Courses

AE100 Basic Aircraft Workshop Practices 4 Cr. Hrs.

Safe working practices, care and use of tools and equipment, drawing types and conventions, Read and interpret aircraft engineering drawings, aircraft engineering standards and presentation, airframe metal work, aircraft hardware, Workshop fittings activities, soldering, brazing and welding

AE101 Avionics Systems I 4 Cr. Hrs.

This module will provide the student with a comprehensive introduction to the avionic systems used on modern aircraft. They will investigate several of these systems in detail and will gain an understanding of the technologies on which each of these systems is based as well as their practical application. The module is divided into four key topic areas: aircraft radio communication systems, aircraft navigation systems, aircraft radar, and automatic flight control systems (AFCS).

AE102 Further Aerodynamics 4 Cr. Hrs.

Experimental aerodynamics; Flow visualisation; Forces on aircraft in manoeuvres; Aircraft performance; Reynolds number; Instability modes; Less common control configurations; Drag/Lift Coefficient; Minimum drag; Lift to Drag ratio
Prerequisite: EG107

AE103 Aircraft Gas Turbine Science 3 Cr. Hrs.

Flow and fluid measurements; Principles of thermodynamics; Entropy; Enthalpy; Energy losses; Bernoulli's equation; venturi; Joule cycle ideal and real; Turbojet performance Turbofan performance; Design and performance of Engines
Prerequisite: EG104

AE104 Aerospace Project Design 4 Cr. Hrs.

To develop learners' skills of independent enquiry by undertaking a sustained investigation of direct relevance to their academic and professional development.
If this module is treated as a group project, each member of the team must be clear about their responsibilities at the start of the project and supervisors will ensure that everyone is accountable for each aspect of the work and contributes to the end result. Learners must work under the supervision of programme tutors or work-based managers. Learners will work under the supervision of programme tutors or work-based managers.

AE105 Aircraft Propulsion Technology 4 Cr. Hrs.

Thermodynamic principles applied to combustion engines; mechanical principles applied to fluid flow and propulsive thrust; types, construction and operation of gas turbine engines; function and operation

of gas turbine engine components; layout and operation of turbine engine fluid systems; function and operation of engine control and monitoring systems; piston engine construction, operation and installation; function and operation of piston engine fluid, ignition and control systems.

AE106 Aircraft Structure 4 Cr. Hrs.

Basic Elasticity; Two dimensional problems in Elasticity; Torsion of Solid Sections; Thin plate Theory; Columns; Bending, Shear and Torsion of Thin walled Beams; Properties of aircraft structural metallic alloys; Properties of fiber composite materials; Structural components of aircraft; Airworthiness and Airframe Loads; Study of fatigue and fatigue damage estimation; Crack propagation.

Prerequisite: EG108

AE107 Aerospace Industrial Studies 3 Cr. Hrs.

Aerospace industry; Challenges; Fleet planning and Aircraft performance; Maintenance concepts; Quality control and Management systems; Finance Analysis; Cost accounting; Airline and Airport operations; Project management

AE108 Individual Aerospace Project 4 Cr. Hrs.

Learners will undertake a comprehensive engineering task which will exercise the in-depth application of the technical, creative, troubleshooting and other skills required of a professional engineer. It provides experience of the planning, self-management and communication required for the successful execution and reporting of a substantial, well-defined project. Learner achievement is judged in the context of 200 hours of study time.

Prerequisite: AE100, EG109, or EG121

Avionics Engineering Courses

AV100 Basic Electrical and Electronic Workshop Practices 4 Cr. Hrs.

This module covers the basic principles of electricity such as electrical terminology, generation of electricity, DC sources of electricity and DC theory. It includes designing a circuit and manufacturing it on a printed circuit board. Also, it covers testing procedures for troubleshooting.

AV101 Combinational and Sequential Logic 4 Cr. Hrs.

Reading manufacturer's datasheet; combinational devices such as buffer; decoder, encoder; multiplexer, demultiplexer; combinational circuit computer simulations; sequential devices such as J-K flip-flop, D flip-flop, T flip-flop, registers; sequential logic circuits such as clock generator, BCD counter, pseudo random number generator; sequential computer simulations; designing digital system with combinational and sequential devices

AV102 Digital and Analogue Devices and Circuits 4 Cr. Hrs.

Linear regulated power supplies; switch mode power supplies; designing a linear power supply; testing a linear supply to graph the results; properties of ideal operational amplifier; application circuits of operational amplifier; designing and testing operational amplifier by the use of computer simulation

and/or breadboards/trainers; comparison between digital logic families- TTL & CMOS; designing, constructing and testing combinational circuits; designing, constructing and testing sequential circuits
Prerequisite: EG101

AV103 Electronic Principles 4 Cr. Hrs.

Circuits and testing; Devices; Literature; Amplifier characteristics; Analyse operation and performance; Types and benefits of amplifier; Modify circuit designs; Types and effects of feedback; Circuit performance; Circuit investigation; Circuit requirements; Build and evaluate; Specification; Crystal oscillators.
Prerequisite: EG101

AV104 Aircraft Communication and Navigation Systems 3 Cr. Hrs.

Legal requirements; Amplitude modulation (AM) transmitters; Receivers; Receiver performance; Type of radio navigation systems; Principles of operation; Aircraft systems; Principle and operations; Aircraft INS; IN problems; Radar systems; Parameters measured.

AV105 Integrated Flight Instrument Systems 3 Cr. Hrs

This module aims to develop learners' understanding of the principles and applications of aircraft flight instrument systems such as gyro driven instruments, pneumatically driver instruments and analog and digital air data systems.

AV106 Automatic Flight Control Systems 3 Cr. Hrs

This module will examine the automatic flight control system which is key to the safe operation of modern aircraft. Aircraft servo-mechanisms will be explored and systems analysis on the servomechanism will be carried out, such as control system, indication systems and integration of flight control systems. The function and operation of yaw damper systems will also be investigated and yaw channel instability will be examined. Similarly, the behaviour and parameters of auto pilot and auto throttle systems will be investigated, and finally the characteristics of auto land systems will be scrutinised.
Prerequisite: EG103

AV107 Electrical and Electronic Principles 4 Cr. Hrs.

Transformation theorems: Thevenin's and Norton's theorems, delta-star and star-delta transformation; circuit theory: maximum power transfer and superposition for complex circuits; mutual inductance and transformers; RLC tuned circuits; two-port network models; T and Pi attenuators; Fourier series for different waveforms; Laplace transforms; circuit response; use of computer simulation to design and test various circuits.
Prerequisite: AV103

AV108 Avionics Project Design 4 Cr. Hrs.

Avionics/electrical & electronics related project selection; literature review; methods of research; project log book; estimating costs; project requirements; planning and monitoring; structure of group

and collaborative working; timescales; deliverable milestones; implementation of project with proper use of resources; generating solutions; recording of outcomes; detailed analysis of results; conclusions and recommendations; limitations of the project; improvements; relevant documentation of all stages of the project; proper delivery format to the audience using proper media.

AV109 Avionics Systems II 4 Cr. Hrs.

It includes coverage of advanced navigation systems, satellite communication systems, signal processing techniques and avionic applications of microcontrollers and Modern Avionics system design.

Prerequisite: AV104

AV110 Individual Avionics Project 4 Cr. Hrs.

Learners will undertake a comprehensive engineering task which will exercise the in-depth application of the technical, creative, troubleshooting and other skills required of a professional engineer. It provides experience of the planning, self-management and communication required for the successful execution and reporting of a substantial, well-defined project. Learner achievement is judged in the context of 200 hours of study time.

Prerequisite: AV100, EG109 or EG121

Mechanical Engineering Courses

ME100 Mechanical Workshop Practices 4 Cr. Hrs.

Importance of, and responsibility for, safe working practice, Set-up and use of a manual lathe and milling machine following all safety procedures, Types of engineering drawing and their use, Types of production quality control processes, metrology techniques

ME101 Mechanical Principles 3 Cr. Hrs.

Shafts and beams; Energy and work; Screws and gear system; Couplings and energy storage; Simple harmonic motion; Damped systems.

Co requisite: EG106

ME102 Advanced Thermodynamics and Heat Engine 4 Cr. Hrs.

Refrigeration; Carnot cycle; Transport property tables; Pressure/enthalpy charts; Heat pumps; CFCs; Air compressors; Compressed air; Reciprocating compressor analysis; Steam plant; Steam cycles - Rankine cycle; Gas turbines; Joule cycle; Irreversibility; Isentropic efficiency

Prerequisite: EG104

ME103 Strength of Materials 4 Cr. Hrs.

Mohr's Circle, principal stress, principal strain, safety factors, support reactions, Simply supported beams, cantilever beams, slope, deflection, reinforced concrete beam, struts, critical load, columns, asymmetrical bending, strain energy, torsion, bending, tensile stress, compression stress, Castigliano's theorem

Prerequisite: EG102

ME104 Fluid Mechanics 4 Cr. Hrs.

Centre of pressure; Hydraulic presses; Hydraulic jacks; Hydraulic accumulators; Braking systems; Shear stress, Viscosity; Capillary tube; Real fluids; Head losses; Reynolds number; Viscous drag; Dimensional analysis; Thrust; Fluid friction losses; Efficiency; Turbines; Pumps
Prerequisite: EG102

ME105 Mechanical Project Design 4 Cr. Hrs.
Learners will undertake a group project to showcase the ability to formulate a project and implement the project to the desired specifications. It provides experience of the planning, evaluation, team-management and communication required for the successful execution and reporting of a substantial, well-defined project related to mechanical engineering.

ME106 Manufacturing Process 4 Cr. Hrs.
Component manufacture; Machining techniques; Tooling requirements; Work-holding techniques; Moulding processes; Shaping processes; Metallic materials; Ceramic materials; Material properties; Tooling requirements.

ME108 Mechanical Applications 4 Cr. Hrs.
Design solution; Problem-solving techniques; Design of mechanical system or component; Analysis of problems; Mechanical principles; CAD and CAE techniques; Building and Testing; Project outcome analysis; Report writing; Presentation skills
Prerequisite: ME100

ME109 Mechanical Systems Modelling 4 Cr. Hrs.
Finite Element; CFD theories; Discretisation method; Solid Mechanics; Singularity Functions; Superposition Method.
Prerequisite: EG106

ME110 Individual Mechanical Project 4 Cr. Hrs.
Learners will undertake a comprehensive engineering task which will exercise the in-depth application of the technical, creative, troubleshooting and other skills required of a professional engineer. It provides experience of the planning, self-management and communication required for the successful execution and reporting of a substantial, well-defined project. Learner achievement is judged in the context of 200 hours of study time.
Prerequisite: ME100, EG109 or EG121

ME111 Mechanical Industry and Professional Studies 3 Cr. Hrs.
Engineering industry; Industry challenges and performance; Planning; Economics; Manufacturing concepts; Maintenance concepts; Cost accounting; Management systems; Finance analysis; Quality control; Regulations; Products marketing; Safety and security operations

Aircraft Maintenance Engineering Courses:

AMT101 Industrial Training (I) 3 Cr. Hrs.

Industrial training is an integral part of the AME engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend five weeks on a full-time basis in an aircraft maintenance environment, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 40 CRH

AMT102 Industrial Training (II) 3 Cr. Hrs.

Industrial training is an integral part of the AME engineering programme and the main purpose of it is to complement the modules given in classroom with on-the-job training in order to develop both the technical and generic skills of the students. Trainees spend four weeks on a full-time basis in an aircraft maintenance environment, under the supervision of a designated faculty member (the University Supervisor), to earn practical skills. A report should be submitted at the end of the training period. This report should cover all activities carried out by the trainee at the training site and goals achieved.
Prerequisite: Completion of 40 CRH

AME101 Engineering Mathematics I (1 B) 3 Cr. Hrs.

This module provides AME learners with the basic techniques to solve mathematical, scientific and associated engineering problems at technician level. The first learning outcome is intended as a basic introduction to the arithmetic of elementary calculus. The second learning outcome will develop learners' knowledge and understanding of algebraic methods, from a look at the use of indices in engineering to the use of the algebraic formula for solving quadratic equations. Finally, the third learning outcome is focused on the simple geometrical constructions and trigonometric methods.

AME102 Engineering Science I (2 B) 4 Cr. Hrs

This module provides AME learners with the opportunity to extend their knowledge of matter and the states of matter. It also includes knowledge of wave motion, sound and optics. It includes principles that is essential for anyone seeking to become an engineer. The module also includes lab work to supplement the theoretical sessions.

AME103 Electrical Fundamentals (3 B) 9 Cr. Hrs

This module gives the learner the fundamentals of electrical theory and terminology, methods of DC and AC electrical generation and construction, operation and applications of resistive, inductive and capacitive devices. Furthermore, it guides the learner how to apply AC and DC circuitry in devices and machines. Magnetism, electromagnetism, induction and self-induction and their applications will be covered in this module.

AME104 Electronic Fundamentals (4 B) 4 Cr. Hrs

This module provides AME learners with understanding and skill of aircraft electronics. It covers electronic fundamentals with emphasis on semiconductors such as the diode and the transistor. A

fundamental characteristic, properties and uses of these devices are discussed. A brief introduction to integrated circuits, printed circuit board technology, and servo mechanisms are also covered.

AME105 Digital Techniques and Avionics (5 B) 7.25Cr. Hrs

This module is designed to develop learners understanding and skills in digital techniques. This module covers an advanced level of digital systems with emphasis put on electronic instrument systems, numbering systems, data buses and data conversion.

Prerequisite: AME104

AME106 Aircraft Materials and Hardware (6 B) 8.5 Cr. Hrs

This module is to develop learners understanding and skills on the characteristics, types and uses of aircraft materials. The module covers aircraft materials both ferrous and nonferrous: characteristics, properties, heat treatment and testing: tension, hardness, and fatigue tests. The module also includes characteristics and properties of composite and non-metallic materials and their identification; sealant types and bonding techniques; wooden aircraft structure: characteristics, preservation, defects and repairs; aircraft fabric coverings. Corrosion: types, causes and protection of aircraft parts are also covered.

AME107 Maintenance Practices (7 B) 11 Cr. Hrs

This module covers safety precautions for aircraft and workshop; workshop practices; calibration of tools and calibration standards; operation, function and use of common avionic general testing equipment. This module also covers engineering drawings, diagrams and standards, ATA 100 specifications, common systems of fits and clearances. Other topics includes standard methods for checking shafts, bearings, electrical cables and connectors, wiring protection techniques, bonding practices and testing, riveting, pipes and hoses, springs, bearings, transmissions and control cables. This module also covers advanced level of aircraft parts joining and repair methods: different types of basic welding, brazing and soldering, selecting of appropriate material, filler material and flux. Furthermore this module will cover aircraft handling and storage, jacking, inspections, effects of environmental conditions on aircraft handling, aircraft repair and assembly techniques, trouble shooting, maintenance procedures and inspections carried out after abnormal events such as lightning strikes, heavy landings and flight through turbulences, maintenance planning, modifications, quality assurance and control. The module will also include workshop tasks which will be assessed.

AME108 Basic Aerodynamics (8 B) 3 Cr. Hrs

This module provides learners with the fundamental principles of aerodynamics. The module will focus on the physics of atmosphere; and basic aerodynamics including: the airflow around a body, aerofoil sections, the aerodynamic forces acting on the aircraft, generation of aerodynamic lift and different types of aerodynamic drag. The module also includes theory of flight: the aerodynamic forces and aircraft performance during steady level flight, climb and descent, and turning; and aircraft stability and flight dynamics.

AME109 Human Factors in Aircraft Engineering (9 B) 3 Cr. Hrs

This module is designed with the intention to improve the level of human factors awareness and to improve the understanding of human performance issues related to activities in a maintenance environment. The module provides students with the necessary knowledge and skills to appraise human error and factors affecting human performance, and to apply tools and methods for error prediction and measurement. Topics covered also include social physiology, physical environments, tasks, communication and hazards in the workplace.

AME110 Aviation Legislation (10 B) 3.5 Cr. Hrs

This module provides AME learners with the opportunity to learn the current air legislation requirements in force by the UAE General Civil Aviation Authority. This module covers the regulatory framework of the GCAA and the international body ICAO. Learners will understand the role of CAR-21, CAR-66, CAR-145 and CAR-147 guidance material with respect to the airworthiness requirements and maintenance regulations of GCAA. The module also explains the certification process, requirements of aircraft operation and the associated documentation. GCAA and international continued airworthiness requirements and the GCAA CAR-M regulation will also be covered.

AME111 Turbine Aeroplane Aerodynamics, Structures And Systems (11 B1) 15.75Cr. Hrs

This module will give learners an understanding of the structural concepts, construction methods, general design features and protection methods needed for the successful manufacture, production and maintenance of aircraft airframe structures. This module aims to provide learners with an understanding of aircraft systems, associated safety and emergency / warning systems. The learner will also be exposed to the various aircraft Avionics and Electrical systems

Prerequisite: AME104, AME108

AME115 Gas Turbine Engines (15 B1) 16 Cr. Hrs

This module is to develop learner understanding and skills in Gas Turbine Engines as per GCAA/EASA module 15 requirements. The module covers: gas turbine engines fundamentals, construction and working principles; gas turbine engine components: inlet section, compressors section, combustion chamber, turbine section, and exhaust section; gas turbine engine systems: starting, fuel, oil cooling and engine indication systems. The module also covers safety procedures, monitoring systems, engine ground operation, and thrust augmentation systems.

AME117 Propellers (17 B1) 3 Cr. Hrs

The objective of this module is to develop learners working skills on aircraft propeller. This module covers the function, fundamental principles of propeller, propeller construction, systems and operation. The module also covers blade element theory, propeller pitch control, propeller synchronising, ice protection system, propeller maintenance, storage and preservation.

AMW107A Maintenance Practices Workshop A 2.5 Cr. Hrs

This module will give learners the knowledge, understanding and skills needed to safely carry out a range of practical tasks in an aircraft workshop. This module will give learners an understanding of the safe working practices associated with aircraft workshop activities and the care, control and safe

use of aircraft workshop tools and equipment. Learners will develop the skills needed to safely carry out tasks associated with aircraft sheet metal work, and aircraft fasteners. They will also gain the skills necessary to read and interpret engineering diagrams and drawings.

AMW107B Maintenance Practices Workshop B 1.5 Cr. Hrs

This module will give learners the knowledge, understanding and skills needed to safely carry out a range of practical tasks in an aircraft workshop. This module will give learners an understanding of the safe working practices associated with aircraft workshop activities and the care, control and safe use of aircraft workshop tools and equipment. Learners will develop the skills needed to safely carry out tasks associated with aircraft sheet metal work, and aircraft fasteners. They will also gain the skills necessary to read and interpret engineering diagrams and drawings.

Top-up Courses:

MA103 Engineering Mathematics II 3 Cr. Hrs

In common with all engineering mathematics modules, this module aims to demonstrate the importance of mathematics to a study of engineering and to equip students, studying it, with mathematical skills appropriate for an engineer. As this is a Level 2 module, it builds on the mathematical skills students have already acquired by introducing more advanced mathematical techniques and giving greater emphasis than at Level 1 to the application of mathematics to engineering problems.

Prerequisite: AME101

BS102 Total Quality Management 3 Cr. Hrs

Principles and key themes of TQM; Inspection, Quality Control, Quality Assurance and TQM; Design a quality improvement programme; Performance measurement; Quality costing; Formal quality system and environmental management system; Contribution of marketing, design and manufacturing departments; SPC and its implementation.

EG122 Engineering Science II 3 Cr. Hrs

Direct stress and strain, tension and compression, shear stress and shear strain, elasticity, stress - strain relations, bending of beams, SF and BM diagrams, engineers' theory of bending, torsion of circular shafts. Free body diagrams, mass acceleration effects (D'Alambert's forces), centripetal and centrifugal force, mass moments of inertia; First and Second Laws of Thermodynamics; Gas Laws; Properties of real substances; phase change; flow and non-flow processes; heat transfer.

Prerequisite: AME102

AE107 Aerospace Industry Studies 3 Cr. Hrs

Aerospace industry; Challenges; Fleet planning and Aircraft performance; Maintenance concepts; Quality control and Management systems; Finance Analysis; Cost accounting; Airline and Airport operations; Project management

AME200 Aircraft Maintenance Management 3 Cr. Hrs

Types of Maintenance; Maintenance & Engineering Organisation Structure; Line and Base Maintenance operations; Maintenance costs; Human Factors in Aircraft Maintenance Safety; Maintenance Costs methods of optimisation; In house workshops and outsourcing strategies; Materials & Logistical Support; Effect of Contract Management.

AME201 Airworthiness 3 Cr. Hrs

Regulatory authorities; certification specifications; aircraft certification; innovations in aircraft design; airworthiness requirements.

Prerequisite: AME110

AME202 Individual Maintenance Project 4 Cr. Hrs

Learners will undertake a comprehensive engineering task which will exercise the in-depth application of the technical, creative, troubleshooting and other skills required of a professional engineer. It provides experience of the planning, self-management and communication required for the successful execution and reporting of a substantial, well-defined project.

Prerequisite: AME101, AME103, AME107

AME203 Aerospace Technology II 3 Cr. Hrs

The module aims to enhance the learner knowledge of principles of aerodynamics, flight mechanics, conservation of mass, conservation of momentum; conservation of energy; aircraft stability and wind tunnel testing.

Prerequisite: AME108

AME204 Aircraft Safety, Security and Emergency Planning 3 Cr. Hrs

Regulations; safety; security; security devices and procedures; accident investigation; emergency response

A student who is enrolled in the B.Sc. Computer Science programme has to complete four compulsory Mathematics and Statistics courses (11 credit hours).

1. MTH 1101 Introduction to Math
2. MTH 1202 Algebra and Calculus
3. STA 1201 Statistics and Empirical Methods
4. STA 2102 Linear Statistical Models

Mathematics and Statistics Compulsory Courses:

MTH 1101 Introduction to Math 3 Cr. Hrs.

This course is designed for students who need to gain skills in basic mathematics. It includes topics on linear equations, inequalities, quadratic equations and their graphs, functions of one variable,

trigonometric, logarithmic and exponential functions, computing limits, continuity, derivative of functions of one variable and applications. Moreover, finding integral of functions using methods of integration and applications. Finally, matrices, operation on matrices, determinants, solve systems of linear equations by matrices and a brief introduction to complex numbers.

MTH 1202 Algebra and Calculus 3 Cr. Hrs.

This is the core mathematical methods module for those undertaking degrees in the mathematics area. The primary aims of the module are to provide underpinning mathematical methods and an introduction to abstract algebra (including some number theory), providing a first serious exposure to axiomatically defined mathematical structures. This module will be directly relevant to later modules including (though not limited to) Electromagnetism, Advance Algebra & Analysis and Fluid Dynamics.

Prerequisite: MTH 1101.

STA 1201 Statistics and Empirical Methods 2 Cr. Hrs.

Principles of discrete probability with applications to computing. Basics of descriptive statistics. Distributions, including normal (Gaussian), binomial and Poisson. Least squared concept, correlation and regression. Statistical tests most useful to software engineering: t-test, ANOVA and chi-squared. Design of experiments and testing of hypotheses. Statistical analysis of data from a variety of sources. Applications of statistics to performance analysis, reliability engineering, usability engineering, cost estimation, as well as process control evaluation.

STA 2102 Linear Statistical Models 3 Cr. Hrs.

In this module, we will cover two widely utilized statistical techniques: multiple regression and analysis of variance (ANOVA). We will cover the concepts of statistical inference and statistical modeling in great depth. Throughout the module, we will utilize a statistical package for our analyses. Furthermore, this module will build upon the hypothesis testing concepts introduced in stage 4, extending our understanding and application of these principles. The methods taught in this module find extensive use in various sectors, including industry, commerce, government, and research and development. Particularly, students planning to pursue placements in the following year, seeking graduate job opportunities, or working on certain final year projects will find this module highly relevant. Additionally, the statistical modules in stage 6 will further develop and expand upon the concepts introduced in this module.

Prerequisite: STA 1201.

A student who is enrolled in the B.Sc. Computer Science programme has to complete one compulsory Business Course (3 credit hours).

Business Compulsory Course:

BUS 2020 Advanced Communication Studies 3 Cr. Hrs.

This course covers a range of advanced communication skills in English to be an effective communicator in the workplace. It includes persuasive communication, report writing, verbal and non-verbal communication skills, meeting skills and cultural communication differences.

Prerequisite: GE 1010.

A student who is enrolled in the B.Sc. Computer Science programme has to complete thirteen compulsory Computer Science courses (52 credit hours).

Computer Science Major Compulsory Courses:

CSC 1110 Programming Fundamentals 3 Cr. Hrs.

This course aims to provide in depth information about: Procedural programming, Basic syntax and semantics of a higher- level language, variables, primitive data types, operators, expressions, and assignment, simple I/O,conditional structures, the mechanics of running, testing, and debugging, and iterative control structures.

CSC 1020 Object – Oriented Programming 3 Cr. Hrs.

This course aims to provide in depth knowledge about the concepts of object-oriented programming. The course covers: Review of control structures, functions, and primitive data types, Objects and classes, UML graphical notation for classes and objects, object reference variables and primitive-datatype variables, instance and static variables and methods, scope of variables, this keyword, abstraction, encapsulation, inheritance, polymorphism, abstract classes and interfaces, and Graphical User Interface.

Prerequisite: CSC 1110.

CSC 1030 Data Structures and Algorithms 3 Cr. Hrs.

Topics include basic of Object – Oriented Design, Abstract Data Type (ADT), Interface, Exception, Linked data, Algorithm Analysis, ADT Stacks, ADT Queues, ADT Deque, ADT Priority Queue, ADT Circular Queue, Recursion, Sorting, Searching, Hashing, Trees, Balanced Search Trees and Graph Traversal.

Prerequisite: CSC 1020.

CSC 1150 Discrete Structures 4 Cr. Hrs.

This course presents an introductory subject to discrete structures with orientation towards software engineering/ computer science. The course covers the following:

1. Fundamental mathematical concepts: Definitions, sets, relations, proofs, functions.
2. Discrete structures: counting, modular arithmetics and graphs
3. Discrete counting and probability theory.

After the completion of this course, students will have the ability to explain and implement fundamental discrete methods in software engineering. The course will be an appropriate foundation for later use in subsequent courses related to algorithm design and analysis, theory of computability and computer systems.

CSC 2010 Web Design 3 Cr. Hrs.

This course aims to provide in information and knowledge about: The Web environment, The structural layer (HTML & XHTML), The presentation layer (CSS), Web graphics, Website production, Subversion, and Debugging.

CSC 2200 Computer Architecture 3 Cr. Hrs.

This course aims at giving the students a view of computer architecture their background principles and the impact of these on program performance. The topics include memory technology and optimization, flash memory, cache performance, virtual memory, virtual machine, data dependency and control dependency, branch predictors, vector architecture, graphics processing unit (GPU), multiprocessor architecture, cache coherence, shared memory.

CSC 2210 Fundamentals of Database Systems 3 Cr. Hrs.

Evolution of database management system (DBMS), Relational Data Model, Entity Model, Database Normalization, Relational Algebra, SQL, Database Design and Ethical issues in Database Management.

CSC 2260 Operating Systems 3 Cr. Hrs.

History of Operating Systems, process scheduling, interprocess communication, threads, scheduling algorithms, process synchronization, deadlocks, memory allocation, HDD and NVM scheduling, storage device management, file system, Security and protection, network and distributed systems.

Prerequisite: CSC 1030.

CSC 2270 Computer Communications and Networks 3 Cr. Hrs.

This course introduces computer networks and protocols. The course covers different topics such as principles of network applications, HyperText Transfer Protocol (HTTP), Simple Mail Transfer Protocol (SMTP), Domain Name System (DNS), peer-to-peer applications, distribution networks, user datagram protocol (UDP), transmission control protocol (TCP), router, switching, internet protocol (IP), 802.11 Wireless LANs, cellular internet access, network security, Cryptography, securing wireless LANs.

Prerequisite: CSC 2260.

CSC 2310 Internship 15 Cr. Hrs.

This course will assist students to work and learn in a professional environment through direct interface with the industry professionals. Students will be training for sixten weeks under the supervision of a designated faculty member. Students will be able to apply the knowledge gained from the classroom to a work situation. This course also provides students with extra knowledge and practical experience of the benefits and challenges of the real world of work. During the internship, the total number of weekly working hours should be at least 30 hours.
Prerequisite: Completion of 70 Cr. Hrs.

CSC 3200 Advanced Database Systems 3 Cr. Hrs.

This course aims to provide in depth information about object-oriented database, implementation techniques, representing data, XML, query processing, query trees, cost-based optimization and cost function, transaction processing, distributed database, temporal and spatial database concepts, information retrieval, security, and emerging technologies.

Prerequisite: CSC 2210.

CSC 3100 Social Issues and Professional Practice 3 Cr. Hrs.

This course provides students with the knowledge of ethical and professional issues in Information Technology. While taking this course, students will get familiar with ethical codes and guidelines in the professional IT environment. The course will also provide students with the knowledge of human behavioral issues, and will help them improve their communication and team working skills. The course aims to provide information and knowledge about: Professional Issues and Professional Practice, Professional Code of Ethics like ACS and ACM codes of conduct, Legal Frameworks and Privacy Issues, Cybersecurity, Computer Crime, Computer Law, Ethics, and Intellectual Property, and Ethics of IT Organizations including Corporate Social Responsibility like Green Computing.

CSC 2400 Software Engineering 3 Cr. Hrs.

This course covers the fundamentals of software engineering. The course covers different topics such as software development, software engineering ethics, software process models, Agile methodology, software requirements, system modelling, architectural design, object-oriented design using the Unified Modelling Language (UML), software testing, software Evolution, and Project management.

Prerequisite: CSC 1020.

A student who is enrolled in the Artificial Intelligence Concentration of the B.Sc. Computer Science programme has to complete the following nine major Artificial intelligence compulsory courses (27 credit hours).

Major Concentration in Artificial Intelligence (AI) Compulsory Courses:

AI 2010 Introduction to Artificial Intelligence 3 Cr. Hrs.

This course is designed to expose the student to understand the concepts and techniques of artificial intelligence (AI). Topics include Search algorithms, Search strategies, Heuristic functions, optimization, Search in continuous spaces, Alpha-Beta tree search, Propositional logic, First-order logic, Ontology engineering, Classical planning, Inference, Bayesian network, Utility theory and MDPs.

AI 3220 Security 3 Cr. Hrs.

This course covers theory and practice of computer and information security. The course covers different topics such as challenges facing information security, cryptography, verifying the user, authentication and authorization, detecting system intrusions, preventing system intrusions and guarding against network intrusions, securing web applications, the botnet problem, wireless network

security, information security essentials for information technology managers, security management systems, vulnerability assessment, insider threat.
Prerequisite: CSC 2270.

AI 3110 Machine Learning and Related Applications 3 Cr. Hrs.

This course represents an introduction to the field of machine learning. It covers concepts related to supervised and unsupervised learning methods, for example linear regression, support vector machines, decision trees and random forests, reinforcement learning, clustering techniques, naïve Bayes classification models and ethical issues in machine learning.
Students who take the course will understand the basics of these methods and be able to analyse the what results could be achieved by applying different machine learning algorithms on a set of data. They will also understand techniques of processing such data. Applications related to these concepts will also be discussed.

AI 3120 Neural Networks 3 Cr. Hrs.

This course looks into the concepts used in neural networks and how they are applied to solve real problems. The topics include supervised, unsupervised and reinforcement learning together with their applications, deep learning, convolutional neural networks, recurrent network, self-organising maps, and radial basis functions.
Prerequisite: AI 2010.

AI 4110 Intelligent Agents 3 Cr. Hrs.

The aim of this course is to give students an understanding of knowledge-based systems and fundamental concepts in artificial intelligence. The course covers the basics and applications of AI including design of intelligent agents, problem solving, searching, knowledge representation systems and probabilistic reasoning and Bayesian network.
Prerequisite: AI 2010.

CSC 3120 Theory of Computation 3 Cr. Hrs.

This module is designed to help students understand the theoretical foundations of Computer Science, and from this an appreciation of the limitations of computation and the important questions that remain open to this day. The module covers: formal specification of languages; the main models of computation; and what these tell us about issues of computability and complexity.

AI 4207 Computer Vision 3 Cr. Hrs.

This course discusses the use and development of computer vision applications. It covers concepts related to image systems and software, image analysis, edge, line and shape detection, image segmentation, feature extraction and pattern classification. Students who take the course will understand the basics of these methods and be able to analyse what results could be achieved by applying different computer vision algorithms on image data. They will also understand techniques of object recognition, depth estimation motion estimation, scene understanding. Applications related to these concepts will also be discussed.

AI 4108 Individual Project Preparation 3 Cr. Hrs.

This course represents the first half of a full year complex computing project that aims to provide students the opportunity to explore in depth the phases of solving complex computing problems, including designing and planning the complex computing solution based on the knowledge acquired during their academic studies. Student will work on an application problem to be modelled and solved as a significant project. The project will strictly follow the software engineering process learned throughout the bachelor of computer science (Artificial Intellegence) curriculum and cover computer science concepts and programming abilities. The course will be evaluated based on regular reports that will be submitted by the individuals, by regular presentations of progress, and on individual report on a specific aspect of the project work carried out by the student.

Prerequisite: Completion of 60 Cr. Hrs.

AI 4209 Individual Project 3 Cr. Hrs.

This course represents the second phase of a full-year individual project in the field of Artificial Intelligence, offering students the opportunity to delve deeply into the complexities of solving advanced computing problems. During this course, students will apply their acquired knowledge from their academic studies to design and plan a comprehensive computing solution. This individual project, focused on Artificial Intelligence, emphasizes self-reliance and the development of advanced problem-solving skills.

Students will independently work on a significant software project, aligning with the principles of software engineering learned throughout their Bachelor of Computer Science curriculum. The project will explore and apply computer science concepts and advanced programming abilities within the realm of Artificial Intelligence.

The evaluation of students will be based on regular reports submitted individually, demonstrating their progress and milestones achieved. Presentations will be scheduled to showcase their advancements throughout the course. Each student will be responsible for an individual report, highlighting specific aspects of their project. This shift to individual project work empowers students to take full ownership of their work and ensures that their performance is evaluated based on their individual contributions and achievements. The course is tailored to reflect the complexities and unique challenges of Artificial Intelligence in contemporary computing.

Prerequisite: AI 4108.

A student who is enrolled in the Data Science concentration of the B.Sc. Computer Science programme has to complete the following nine major Data Science compulsory courses (27 credit hours).

Major Concentration in Data Science (DS) Compulsory Courses:

DS 2010 Data Science and Distributed Computing 3 Cr. Hrs.

The course introduces concepts related to the data science process, from data collection, to processing, analysis and visualisation. The course also covers aspect of distributed computing which are required for big data processing.

The course aims to provide in information and knowledge about: Data Collection, Data Munging, Data Analytics, Big Data Processing, Data Interpretation and Use, Data Visualisation, Different Types of Modern Databases, and Map/Reduce and Hadoop.

Prerequisite: CSC 2210.

DS 3110 Statistical Computing 3 Cr. Hrs.

SPSS is a powerful, user friendly, statistical package. Its features let you quickly prepare and analyse your data to get the proper decision. Also, R is another software for statistical computing and graphics. It is widely used in data science, especially in machine learning. Learning both will greatly prepare students not only for data science market, but also for financial sectors etc. This course introduces students to SPSS and R and provide them the skills and confidence to use both packages for data analysis. The course also includes demonstrations and hands on laboratory sessions. In these sessions, students will explore a variety of datasets and use SPSS and R for data entry and manipulation, exploratory data analysis, the creation of professional charts and tables, and a variety of statistical analyses.

Prerequisite: STA 1201.

AI 3110 Machine Learning and Related Applications 3 Cr. Hrs.

This course represents an introduction to the field of machine learning. It covers concepts related to supervised and unsupervised learning methods, for example linear regression, support vector machines, decision trees and random forests, reinforcement learning, clustering techniques, naïve Bayes classification models and ethical issues in machine learning.

Students who take the course will understand the basics of these methods and be able to analyse the what results could be achieved by applying different machine learning algorithms on a set of data. They will also understand techniques of processing such data. Applications related to these concepts will also be discussed.

DS 4110 Big Data Management and Data Visualisation 3 Cr. Hrs.

Many organisations and business get flooded with large datasets - structured and unstructured - on a daily basis. These datasets are very large and complex to process and analyse using well known traditional methods. This course introduces students to the current management and visualisation methods for Big Data. As part of this course, current popular techniques will be explained which will enable students to discover patterns, relationships and associations in these datasets. Student will explore emerging issues related to traditional database management systems which make them unsuitable to process Big Data. In this regard, the nature of Big Data, recognized by its volume, velocity and variety, which prevents analysis in the normal setting of a traditional database will be studied and advanced analytical techniques require to understand Big Data will be covered. This course aims to give an overview of Big Data. The course covers different topics such as structured and unstructured data, concordances, term extraction, indexing, autocoding, Big Data analysis, Big Data processing, data visualization, and various case studies. identification, deidentification, reidentification, metadata, adequacy of a Big Data resource, normalizing, transforming the data, reducing data, speed and scalability of Big Data, clustering, and Big Data pitfall.

Prerequisite: CSC 3200.

DS 4120 Statistical Design and Modelling 3 Cr. Hrs.

This module is an advanced course in statistical modelling that is based on the prerequisite course DS 3110. The module uses the software package "R". It will cover:

- Generalised linear models (GLM) such as logistic regression model (logit models for binary data): methods of estimation -fitting the linear logistic model to binomial data -Goodness of fit - comparing linear logistic models.
- Applications from different fields like medicine and engineering will be included: modelling data from epidemiological studies- basic designs for aetiological studies- measures of association between disease and exposure - confounding and interaction- the tolerance distribution. estimating an effective dose.
- Survival analysis models: - censoring, survival, Survivor, hazard and cumulative hazard functions- the Kaplan–Meier estimate of the survival function and Wilcoxon test -modelling the hazard function - a model for the comparison of two groups - Cox regression and survival analysis
- Design of experiments: The fundamental principles and practice of experimental design- types of experimental design and their analysis- randomized blocks and related designs- completely randomized design- introduction to factorial designs. Analysis of Variance (ANOVA) models will be used to analyse data from different designs.

Prerequisite: DS 3110.

MTH 3103 Optimisation 3 Cr. Hrs.

This module discusses the mathematics behind optimisation problems with discrete and continuous variables and with as well as without constraints. Such problems occur in a wide range of application fields including operations research, financial engineering, and the physical sciences. As a consequence, the acquired skills will be relevant for many potential occupations of graduates. Some of these problems can be solved analytically, but in most cases, practical applications will involve exact or approximate computational techniques. Numerical code will be developed and used to implement algorithms for optimisation problems.

MTH 3204 Advanced Linear Algebra and its Applications 3 Cr. Hrs.

This is the core mathematical methods module for those undertaking degrees in the mathematics area. The primary aim of the module is to provide the knowledge of the theory of linear algebra and its applications. This module will also develop independent learning, teamwork and presentation skills of the student.

DS 4106 Project Preparation 3 Cr. Hrs.

This course represents the first half of a full year complex computing project that aims to provide students the opportunity to explore in depth the phases of solving complex computing problems, including designing and planning the complex computing solution based on the knowledge acquired during their academic studies. Student will work on an application problem to be modelled and solved as a significant project. The project will strictly follow the software engineering process learned throughout the bachelor of computer science (Data Science) curriculum and cover computer science concepts and programming abilities. The course will be evaluated based on regular reports that will be submitted by the individuals, by regular presentations of progress, and on individual report on a specific aspect of the project work carried out by the student.

Prerequisite: Completion of 60 Cr. Hrs.

DS 4107 Project 3 Cr. Hrs.

This course represents the second phase of a full-year individual project in the field of Data Science, offering students the opportunity to delve deeply into the complexities of solving advanced computing problems. During this course, students will apply their acquired knowledge from their academic studies to design and plan a comprehensive computing solution. This individual project, focused on Data Science, emphasizes self-reliance and the development of advanced problem-solving skills.

Students will independently work on a significant software project, aligning with the principles of software engineering learned throughout their Bachelor of Computer Science curriculum. The project will explore and apply computer science concepts and advanced programming abilities within the realm of Data Science.

The evaluation of students will be based on regular reports submitted individually, demonstrating their progress and milestones achieved. Presentations will be scheduled to showcase their advancements throughout the course. Each student will be responsible for an individual report, highlighting specific aspects of their project. This shift to individual project work empowers students to take full ownership of their work and ensures that their performance is evaluated based on their individual contributions and achievements. The course is tailored to reflect the complexities and unique challenges of Data Science in contemporary computing.

Prerequisite: DS 4106.

A student who is enrolled in the B.Sc. Computer Science programme has to complete three Electives (9 credit hours) from the below courses.

Computer Science Elective Courses:

CSC 4230 Computer Graphics 3 Cr. Hrs.

This subject introduces to the students an overview of Computer Graphics and practical understanding of graphics programming. It starts with Graphics pipeline, Raster images, Ray tracing, Eigenvalues, 2D and 3D linear transformation, viewing transformation, Shading and Texture, Triangle meshes, Scene graph, Curves, Principles of Animation, Radiometry and Visual Perception.

Prerequisite: CSC 1020.

AI 4240 Introduction to Decision Support Systems 3 Cr. Hrs.

This course aim to provide in depth information about: Decision-Making Systems, Computerized Decision Support, Concept of Decision Support Systems (DSS), Foundations and Technologies for Decision Making, DSS Classifications, Components of DSSs, Model Based Decision Making, Modeling and Analysis, Automated Decision Systems & Expert Systems, and Knowledge Management and Collaborative Systems.

CSC 4250 Web Developments Technologies 3 Cr. Hrs.

This subject introduces to the student the recent advancement in web development; starts with JavaScript, Node.js, JASON, Client-Server in Node.js, TCP and TLS in servers and Clients, HTTP Cluster, MongoDB and Angular.
Prerequisite: CSC 2010.

DS 4260 Data Mining and Warehousing 3 Cr. Hrs.

This course introduces the field of data mining concepts and techniques for extracting hidden information from databases. The topics covered data pre-processing, measures of similarity and dissimilarity, Decision Tree, Rule-based classifier, Naive Bayes, Artificial Neural Networks, Loss functions, Regularization, bagging, Boosting, Random Forest, Association analysis, Cluster analysis, Data warehousing.
Prerequisites: STA 1201 and CSC 3200.

CSC 4110 Mobile Applications 3 Cr. Hrs.

This course covers the concepts of design and develop mobile applications and understanding the architecture and the life cycle of the major platforms. The course covers different topics such as features of the Android, writing Android apps, Android emulator, develop a user interface, activity life cycle, tablet specifications, Master/Detail Flow template, animation,
network and database connection, publishing mobile application, and evaluate the performance of mobile application.
Prerequisites: CSC 1020 and CSC 4250.

DS 4270 Big Data Tools and Technologies 3 Cr. Hrs.

This course aims to give an overview of big data as well as the state and practice of big data analytics. the course covers different topics such as structure and unstructured data, identification, deidentification, reidentification, metadata, adequacy of a big data resource, normalizing, transforming the data, reducing data, speed and scalability of big data, clustering, and big data pitfall.
Prerequisite: CSC 3200.

CSC 4210 Software Quality Assurance and Testing 3 Cr. Hrs.

This course covers software quality assurance and testing concepts and techniques. the course covers different topics such as principles of software quality assurance (SQA), software quality requirements, model-driven test design, test automation, JUnit test framework, input domain modeling, graph coverage criteria, cost of software quality, testing strategies, software quality metrics, reliability testing.
Prerequisite: CSC 2400.

CSC 3221 Cryptography and Information Theory 3 Cr. Hrs.

This module provides the student with a fundamental knowledge of contemporary mathematical communication theory, ranging from entropy as a measure of information, through robust methods of encoding data via error correcting codes, to means of making messages secure by encryption.

16. General Education Programme

The undergraduate academic/applied programmes offered by EAU include a general education component to help students acquire knowledge and skills that serve as the foundation for success in society and in one's major discipline. The general education component consists of general education courses that are designed to provide students with a breadth of intellectual experiences and prepare them for living in a dynamic, knowledge-based society. They also aim to enhance skills and abilities needed for studies in students' major disciplines and subsequently in their professional careers. These skills include effective oral and written communication, critical thinking, computer proficiency, and acquisition and integration of knowledge.

16.1 The Learning Outcomes of the General Education Programme

Students will demonstrate ability to:

1) Communicate ideas clearly and effectively, orally and in writing, using English language.
2) Utilise essential IT skills for their studies.
3) Discuss various concepts and characteristics of Islamic culture and civilisation.
4) Demonstrate knowledge in the general field of natural sciences.
5) Demonstrate knowledge of the historical developments in science and technology.
6) Demonstrate knowledge of the multifaceted social issues confronting the world.

16.2 General Education Requirements

16.2.1 Business Programmes

A student who is enrolled in the Bachelor of Business Administration in Aviation Management and Global Logistics and Supply Chain Management programme has to complete seven courses (21 credit hours) in General Education (GE). Six of these GE courses (18 credit hours) are compulsory while the seventh (3 credit hours) is a GE elective, as given in the following:

Bachelor of Business Administration (Aviation Management & Global Logistics, & Supply Chain Management)

Compulsory GE Courses

1. GEN 1010 English I
2. GEN 1030 Introduction to IT
3. GEN 1040 Environmental Science
4. GEN 2040 Islamic Culture
5. GEN 3015 Innovation and Entrepreneurship
6. GEN 3020 Cross Cultural Studies

Elective GE Courses (a student will take only one of the following elective courses):

1. GEN 1050 General Psychology
2. GEN 1060 Critical Thinking
3. GEN 1080 History of Science and Technology
4. GEN 3630 Professional IT

A student who is enrolled in an academic higher diploma or diploma business programme has to complete the six compulsory GE courses (18 credit hours).

Higher Diploma in Business Management

Compulsory GE Courses

1. GEN 1010 English I
2. GEN 2040 Islamic Culture
3. GEN 1030 Introduction to IT
4. GEN 1040 Environmental Science
5. GEN 3020 Cross Cultural Studies
6. GEN 3015 Innovation and Entrepreneurship

16.2.2 Engineering Programmes

B.Sc. in Aeronautical Engineering

A student has to complete seven courses (21 credit hours) in General Education (GE). Six of these GE courses (18 credit hours) are compulsory while the seventh (3 credit hours) is a GE elective, as given in the following:

Compulsory GE Courses

1. GEN 1010 English I
2. GEN 1030 Introduction to IT
3. GEN 1070 Physics
4. GEN 2040 Islamic Culture
5. GEN 3015 Innovation and Entrepreneurship
6. GEN 3020 Cross Cultural Studies

Elective GE Courses (A student will take only one of the following elective courses):

1. GEN 1040 Environmental Science
2. GEN 1050 General Psychology
3. GEN 1060 Critical Thinking
4. GEN 3030 Research Methods

5. GEN 3630 Professional IT

B.Sc. in Computer Science

A student has to complete seven courses (21 credit hours) in General Education (GE). Six of these GE courses (18 credit hours) are compulsory while the seventh (3 credit hours) is a GE elective, as given in the following:

Compulsory GE Courses

1. GEN 1010 English I
2. GEN 1030 Introduction to IT
3. GEN 1040 Sustainability and Environmental Science
4. GEN 2040 Islamic Culture
5. GEN 3015 Innovation and Entrepreneurship
6. GEN 3020 Cross Cultural Studies

Elective GE Courses (A student will take only one of the following elective courses):

1. GEN 1050 General Psychology
2. GEN 1060 Critical Thinking
3. GEN 1070 Physics
4. GEN 1080 History of Science and Technology
5. GEN 2050 Professional Skills Development
6. GEN 3630 Professional IT
7. GEN 2260 Introduction to Arabic Language for Non-Native Speakers

Applied Engineering Programmes

Compulsory GE Courses

1. GE 100 English I
2. GE 101 Introduction to IT
3. GE 102 Innovation and Entrepreneurship
4. GE 103 Islamic Culture
5. GE 104 Environmental Science
6. GE 105 Cross Cultural Studies

Elective GE Courses (A student will take only one of the following elective courses):

1. GEN 106 Critical Thinking

2. GEN 107 General Psychology
3. GEN 108 Research Methods
4. GEN 109 Professional IT

16.2.3 Descriptions of GE Courses

GEN 1010 English I **3 Cr. Hrs.**

This course will teach the fundamentals necessary to address the development of skills in reading and writing for specific academic purposes where the core skills of summary, critique, synthesis and analysis are considered instrumental in enhancing the quality of critical thinking and written work.

GEN 1030 Introduction to IT **3 Cr. Hrs.**

This course will cover the introduction to IT, CPU Memory, Strorage, I/O, Binary Numbering system, Operating system, Programming Languages, Information security also it will cover word-processing, spreadsheets, database, presentation packages, Power apps and Power BI at an introductory level.

GEN 1040 Environmental Science **3 Cr. Hrs.**

This course covers environmental problems, causes and history, critical thinking, demographics, energy resources and efficiency, air, pollution and climate, water pollution and solid and hazardous waste.

GEN 1050 General Psychology **3 Cr. Hrs.**

The course covers the science of psychology; the ways and means of psychology; biology of behaviour; learning and behaviour; sensation; perception; memory; language; intelligence and thinking; life-span development; motivation, emotions and health; personality.

GEN 1060 Critical Thinking **3 Cr. Hrs.**

This course provides students with the opportunities to become clear thinkers through the development of critical thinking skills where critical, as used in the expression critical thinking, connotes the importance or centrality of the thinking to an issue, question, problem, concern or process. Critical thinking will be seen to be a conscious and deliberate process which is used to interpret or evaluate information and experiences with a set of reflective attitudes and abilities that guide thoughtful beliefs and actions. The course explores issues about the nature and techniques of critical thought, viewed as a way to establish a reliable basis for claims, beliefs, and attitudes about the world. Developing and using the principles of critical thinking before making decisions can help prevent errors in judgment in the workplace, whilst studying, and in personal life.

GEN 1070 Physics **3 Cr. Hrs.**

This course includes an introduction to dimensions and units, application of the laws of motion in one dimension, thermal physics, vibrations and waves, electric forces and electric fields, electrical energy and capacitance, current and resistance, direct current circuits, magnetism, induced voltages and inductance, alternating current circuits and electromagnetic waves, light and optics, reflection and refraction of light, mirrors and lenses, and an introduction to modern physics.

GEN 1080 History of Science & Technology 3 Cr. Hrs.

This course introduces the history of specific scientific and technological inventions around the globe which have shaped technological progress and laid the foundation for the post-industrial world. Materials to be covered will range from that of the Stone Age to include the beginnings of agriculture, to the Industrial Revolution and the electronic revolution of the recent past. The course will trace the growing power of humans over nature through increasingly powerful innovations while comparing the evolution of technology in different parts of the world.

GEN 2040 Islamic Culture 3 Cr. Hrs.

This course will cover various aspects of Islamic culture and civilisation. It will explain the concept of Islamic culture, its resources and characteristics, and its relationship to Islamic thought, civilisation, and scientific achievements. It examines human rights in Islam, ethics in Islam, moral values, and contribution of Muslims in the development of science. It presents a brief history of Islamic legislation and explains the impact of holy Koran, Sunnah, and other legislation resources on enriching the Islamic culture. It also discusses some contemporary issues and intellectual challenges facing present day Muslims.

GEN 2050 Professional Skills Development 3 Cr. Hrs.

This course will provide students with a blend of theoretical and practical application intended to develop and hone their professional skills for the workplace within a professional environment. Theory will be seen as the foundation underpinning the deliberate processes that will guide their thinking, attitude, understanding, planning and interaction at a professional level.

Prerequisite: GEN 1030, GEN 1010

GEN 3015 Innovation and Entrepreneurship 3 Cr. Hrs.

This course is a Stanford-informed approach to learning innovation and entrepreneurship that can be applied to any high-growth enterprise or other organisation in the UAE. The class is composed of three modules: (1) Design Thinking, (2) Entrepreneurship, and (3) Growth and Leadership.

GEN 3020 Cross Cultural Studies 3 Cr. Hrs.

Given that globalisation and its consequences represent one of the most urgent and complex challenges of the twenty-first century, this course presents students with the essential information necessary for an understanding of the complex set of interconnected issues confronting today's globalised world.

GEN 3030 Research Methods 3 Cr. Hrs.

This course provides a detailed and comprehensive overview of research techniques and methods including management problem solving and research, selection of a topic area, planning the project, experimental and survey research, data analysis and presentation and evaluation criteria.

GEN 3630 Professional IT 3 Cr. Hrs.

This course builds on previously acquired IT skills in word-processing, spreadsheets, database, and presentation packages and develops them to a professional level using Visual Basic Applications.

Prerequisite: GEN 1030

GEN 2260 Introduction to Arabic Language for Non-Native Speakers 3 Cr Hrs

This course is designed to introduce non-native speakers to the Arabic language and assist them in cultivating fundamental communication abilities encompassing speaking, listening, reading, and writing. Special focus will be given to the practical application of language in everyday contexts, fostering cultural awareness, and establishing a solid groundwork in Arabic grammar and vocabulary.

GE 100 English I 3 Cr. Hrs.

This module teaches the fundamentals necessary to address the development of skills in reading and writing to deal effectively with these elements at an academic level. The reading component will focus on reading for a specific academic purpose, working on effective reading strategies, detailed comprehension of sentences and paragraphs, and text analysis. Academic writing skills will be developed to enable effective writing in combination with the development of the important skills of reading research and critical thinking.

GE 101 Introduction to IT 3 Cr. Hrs.

This course covers operating systems, word-processing, spreadsheets, database, and presentation packages at an introductory level.

GE 102 Innovation and Entrepreneurship 3 Cr. Hrs.

This course has been developed for the UAE at the specific request of the visionary leadership of the country. It is based on the decades of practices and experiences of teaching innovation and entrepreneurship at Stanford University in the USA, which has contributed to the flourishing innovation and business growth characteristic of the Silicon Valley area. The course is composed of 3 modules:

Module 1 – Design Thinking
Module 2 – Entrepreneurship
Module 3 – Growth and Leadership

GE 103 Islamic Culture 3 Cr. Hrs.

This course will cover various aspects of Islamic culture and civilisation. It will explain the concept of Islamic culture, its resources and characteristics, and its relationship to Islamic thought, civilisation, and scientific achievements. It examines human rights in Islam, ethics in Islam, moral values, and contribution of Muslims in the development of science. It presents a brief history of Islamic legislation and explains the impact of holy Koran, Sunnah, and other legislation resources on enriching the Islamic culture. It also discusses some contemporary issues and intellectual challenges facing present day Muslims.

GE 104 Environmental Science 3 Cr. Hrs.

This module covers environmental problems, causes and history, critical thinking, demographics, energy resources and efficiency, air pollution and climate, water pollution and solid and hazardous waste.

GE 105 Cross Cultural Studies 3 Cr. Hrs.

This module will explore the ways that humans around the world have always been connected through multiple layers of culture, trade, travel, migration and ecology, etc. It will enhance understanding of global phenomena by bringing the methodologies and discourses from a variety of disciplines to bear on some of the most pressing issues of these days. It will make connections not only among various disciplines but also between the local and the global, and oneself and others.

GEN 106 Critical Thinking 3 Cr. Hrs.

This module provides students with the opportunities to become clear thinkers through the development of critical thinking skills where critical, as used in the expression critical thinking, connotes the importance or centrality of the thinking to an issue, question, problem, concern or process. Critical thinking will be seen to be a conscious and deliberate process which is used to interpret or evaluate information and experiences with a set of reflective attitudes and abilities that guide thoughtful beliefs and actions. The course explores issues about the nature and techniques of critical thought, viewed as a way to establish a reliable basis for claims, beliefs, and attitudes about the world. Developing and using the principles of critical thinking before making decisions can help prevent errors in judgment in the workplace, whilst studying, and in personal life.

GEN 107 General Psychology 3 Cr. Hrs.

The science of psychology; the ways and means of psychology; biology of behavior; learning and behavior; sensation; perception; memory; language; intelligence and thinking; life-span development; motivation, emotions and health; personality.

GEN 108 Research Methods 3 Cr. Hrs.

This module provides a detailed and comprehensive overview of research techniques and methods including management problem solving and research, selection of a topic area, planning the project, experimental and survey research, data analysis and presentation and evaluation criteria.

GEN 109 Professional IT 3 Cr. Hrs.

This course builds on previously acquired IT skills in word-processing, spreadsheets, database, and presentation packages and develops them to a professional level using Visual Basic Applications.
Prerequisite: GE 101

17. Academic Regulations

17.1 Student Study Load

Student Study Load is the total number of credit hours a student is registered for during a semester. It is determined by the student ability and achievement. A student who is enrolled in an undergraduate academic programme usually registers for 15–18 credit hours (five to six courses) in each regular semester. The required minimum study load is 12 credit hours in any regular semester. Under special conditions and with the approval of the Faculty Dean, based on a recommendation by the Programme Co-ordinator, a student may be allowed to increase his/her study load to 21 credit hours in one semester

provided that his/her cumulative GPA is above 3.25. All credits exceeding 15 credit hours will require a supplemental fee. A student can register for up to 6 credit hours (two courses) in a summer semester. However, graduating students may be allowed to register for up to 9 credit hours (three courses) in the summer semester if recommended by their academic advisors.

Student Study Load is the total number of credit hours a student is registered for during a semester. It is determined by the student ability and achievement. A student who is enrolled in an undergraduate applied programme usually registers for 15–18 credit hours (five to six courses) in each regular semester. The required minimum study load is 12 credit hours in any regular semester. Under special conditions and with the approval of the Faculty Dean, based on a recommendation by the Programme Co-ordinator, a student may be allowed to increase his/her study load to 21 credit hours in one semester. All credits exceeding the number assigned in a specific semester plan will require a supplemental fee per credit. A student can register for up to 6 credit hours (two courses) in a summer semester. However, graduating students may be allowed to register for up to 9 credit hours (three courses) in the summer semester if recommended by their academic advisors.

17.2 Minimum CGPA for Satisfactory Progress

Students who are enrolled in an EAU undergraduate academic/applied programme are required to maintain a CGPA of 2.0 (on a 4.0 scale) for satisfactory performance and graduation. The Academic Probation & Dismissal Policy is outlined in Section 17.3.

A student has to achieve a minimum CGPA of 2.0 (on 4.0 scale) in order to graduate in any of EAU undergraduate academic programmes. The policy for undergraduate completion is outlined in Section 15.2.

17.3 Academic Probation & Dismissal

1. Students who are enrolled in an EAU undergraduate academic/applied programme are required to maintain a CGPA of at least 2.0 for satisfactory performance and graduation.
2. If the cumulative GPA of a student is less than 2.0 at the end of any semester s/he will be placed under academic probation.
3. The student after the first academic probation will be allowed to register four courses with a maximum load of 13 credit hours and must at least repeat one course.
4. A student on academic probation for the second consecutive semester is allowed to register four courses with a maximum load of 13 credit hours and have to repeat at least two courses.
5. A student on academic probation for the third consecutive semester will be dismissed from EAU.

17.4 Attendance Policy

Attendance and class participation are considered critical for effective education at EAU as it enhances the learning process. Therefore, students, who are enrolled in an EAU undergraduate academic/applied programme, are expected to attend classes regularly in all their courses. Failing to attend 25% of the classes in any course, without an exceptional reason will result in the student failing the course. The attendance policy which applies to each course at EAU is as follows:

- A student who is absent for 10% of the theoretical and practical class hours will be issued First Warning.
- A student who is absent for 20% of the theoretical and practical class hours will be issued Second Warning.
- A student who is absent for 25% of the theoretical and practical class hours will be issued a Notification of Failure and assigned a grade F for the course.

Classes missed due to exceptional circumstances will be recorded in the attendance log. The student, his/her parent or guardian will need to submit a written explanation to his/her academic advisor, accompanied by supporting documents, prior to the absence or in exceptional cases, no later than 1 week after the absence. The academic advisor will input his/her recommendation and forward to the Programme Co-ordinator for consideration at the next Faculty Council. The Council will decide whether the absence although recorded, will or will not be counted towards the issuance of Absentee Warnings / Notification of Failure. This decision will be communicated to the student, or his parent or guardian, his/her academic advisor, and appropriate faculty.

Even if the absence is accepted by the Faculty Council, the student may not realistically be able to complete the course work to be able to pass the course. In such cases the academic advisor may advise the student to refer to the withdrawal policy.

17.5 Progression

A Student who registers for, and successfully completes, a lower qualification (diploma or higher diploma) may apply for a higher qualification (higher diploma or bachelor). In which case, and once admission to the programme is granted, all his/her completed credits will be honoured and s/he will have to successfully complete the remaining programme requirements (courses, internship, etc.) to obtain the higher award.

A student who registers for a higher qualification (higher diploma or bachelor) can exit with, and is awarded, a lower qualification (diploma or higher diploma) only if s/he (1) completes all the programme requirements (courses, internship, etc.); (2) accumulates a minimum grade point average (CGPA) of 2.0; (3) submits a written request to exit with the diploma/higher diploma award.

17.6 Grading & Assessment

17.6.1 Course Assessment

Students' performance, in each course, is assessed according to an evaluation criterion that is outlined by the concerned faculty and is detailed in the course syllabus. The overall distribution of marks is normally as follows:

Coursework, class participation and attendance	25 – 50 %
Midterm Exam	20 – 30 %
Final Exam	30 - 50 %

Coursework includes tests, quizzes, group and individual assignments, research and laboratory work.

The pass mark in each course is 60%.

17.6.2 Grading System

The Grade Point Average (GPA) is based on a four-point scale. The following grading system is used at EAU:

Marks	Grade	Points
90+	A	4.0
85 – 89	B+	3.5
80 – 84	B	3.0
75 – 79	C+	2.5
70 – 74	C	2.0
65 – 70	D+	1.5
60 – 64	D	1.0
< 60	F (Fail)	0.0
	LW (Late Withdrawal)	0.0

Grades not calculated in the Grade Point Average (GPA) are:

I	Incomplete
W	Withdrawal
T	Transferred

17.6.3 Grade Point Average (GPA)

The points earned in a course are calculated by multiplying the grade point value of the letter grade by the number of credit hours of the course. The Grade Point Average (GPA) for a given semester is calculated by dividing the sum of the points earned in all the courses taken in that semester by their total credit hours.

Example

Course	Number of Credit Hours	Grade	Grade Points	Earned Points
English 1	3	A	4	12
Introduction to IT	3	B+	3.5	10.5
Introduction to Math	3	B	3	9
Engineering Mechanics	4	C+	2.5	10
Electrical Principles	3	C	2	6
Total	**16**			**47.5**

GPA = (47.5 / 16) = 2.97

17.6.4 Cumulative Grade Point Average (CGPA)

The CGPA indicates the student's overall average performance up to the last completed semester. It is calculated by dividing the sum of the total points earned in all the courses completed to date by the total number of completed credit hours.

Only the last grade of a repeated course is counted in the calculation of the CGPA regardless of whether it is the higher grade or not. Even though credits for repeated courses are only counted once, both grades will appear in the student's transcript.

17.6.5 Incomplete Grade and Make-up Examinations

All students have to attend the final exams of the courses for which they are registered to get their work completed. In the case of unexcused absence, a student is given an F grade for the missing work with course grade computed accordingly. Only in exceptional cases, when there is a compelling medical or other such emergency certified by a medical or other professional, an "Incomplete" grade (I) is given as a final grade in a course. In this case, the student must submit an incomplete request, to the Registration Department, within a maximum of one week from the examination date. S/he must also present the relevant supporting documents. Upon approval by the Faculty Council, the student is allowed to take a make-up examination before the end of the second week of classes of the next regular semester. The Faculty Council may impose up to 20% reduction on the student's total mark for any course in which a student has an incomplete grade.

It is the responsibility of the student to find out from his/her professor the specific date for the make-up examination. An (I) grade pending beyond the specified time limit will revert into an F grade.

17.6.6 Grade Appeals

Students are entitled to professional fair evaluation of their academic work. Should a student have a legitimate reason to believe that there is a need to review his/her final exam paper in a particular course,

s/he may submit a petition to the Registration Department within a period of two weeks following the announcement of the final results. The request will be transferred to the concerned faculty member to review the exam paper and calculation of marks. The Registration Department will notify the student of the decision. If the student continues to believe that the issue is not resolved, s/he may submit an appeal to the Faculty Dean who, after reviewing the student's work, will make the final decision on the grade appeal.

18. List of Full-time Faculty

Name	Degree	Institution	Year	Major/ Specialisation
Abou Hasan, Muner	Ph.D.	Cairo University, Egypt	2019	Pure Mathematics
Abou Hweij, Walid	Ph.D.	The American University of Beirut, Lebanon	2022	Mechanical Engineering
Abu Zaytoon, Mohammad	Ph.D.	University of New Brunswick, NB, Canada	2015	Mathematics
Ahmadian, Sevda	Ph.D.	Girne American University, Cyprus	2018	Management
Ajengui, Alaa	B.A.	Emirates Aviation University, UAE	2019	Aerospace Engineering
Al Ali, Hannah	Ph.D.	Coventry University, UK	2022	Mathematics
Al Halabi, Hassan	MBA	Coventry University, UK	2012	Aviation Management
Altaf, Afaq	Ph.D.	Monash University, Australia	2016	Mechanical Engineering
Ambashe, Mohamud	Ph.D.	University of Bolton, UK	2021	Finance and Accounting
Anna Jacob, Anju	Ph.D.	Vellore Institute of Technology (VIT), India	2019	Band-Gap Engineering in Zinc Oxide & Fabrication of Visible Photodetectors
Arab, Reham	B.Sc.	Emirates Aviation University, UAE	2018	Aeronautical Engineering
Ashbar Ismayil	B.Eng.	Emirates Aviation University, UAE	2021	Aerospace Technology
Baig, Furqan	M.Sc.	NED University of Engineering & Technology, Pakistan	2011	Telecommunications
Canbary, Zara	Ph.D.	Brunel University, UK	2019	Economics
Chafic, Omar	M.Sc.	University of New South Wales, Australia	2007	Aerospace Engineering
Chaturvedi, Nidhi	Ph.D.	Banasthali Vidyapith, India	2020	Management (Marketing)
Chockalingam, Annamalai	Ph.D.	University Sains Malaysia, Malaysia	2016	Management

Name	Degree	Institution	Year	Major/ Specialisation
Dagsa Abong, Manuel	B.Eng.	Central Colleges of Philippines, Philippines	1983	Mechanical Engineering
Daneshkhah, Alireza	Ph.D.	University of Warwick, UK	2003	Artificial Intelligence & Statistics
Essen, Ehsaneh	Ph.D.	Ministry of Science and Technology of Iran	2021	Aerospace Engineering
Fernandes, Shirley	B.Eng.	Dharwad University, India	2000	Electronics & Communication
Hilal, Daoud	Ph.D.	Cranfield University, UK	1994	Software Engineering Methodologies
Ioannou, Crystal	Ph.D.	University of New South Wales, Australia	2011	Human Factors & Systems Safety
Jahwash, Muneer	Ph.D.	Luleå University of Technology, Sweden	2023	Industrial Marketing
Kamil, Mostafa	Ph.D.	Yuan Ze University, Taiwan	2015	Communications Engineering
Kamran, Rukshanda	Ph.D.	University Malaysia Sarawak (UNIMAS), Malaysia	2022	High-Performance Computing & Cloud Computing
Kaur Phull, Disha	Ph.D.	Vellore Institute of Technology (VIT), India	2020	Computer Science
Khateeb, Mohammed	M.Sc.	University of Liège, Belgium	2021	Aerospace Engineering
Lad, Ronak	MBA	University of Luton, UK	2004	International Business
Lakshmana Kumar	B.Eng.	Institute of Engineers, Kolkatta, India	1990	Mechanical Engineering
Machmouchi, Hicham	Ph.D.	The University of Birmingham, UK	1994	Mechanical Engineering
Mgonja, Thomas	Ph.D.	Utah State University, USA	2021	Curriculum & Instruction
Mirchandani, Anita	Ph.D.	Mohanlal Sukhadia University, India	1999	Commerce
Mohammed, Ahlam	Ph.D.	Girne American University, Cyprus	2017	Business Management
Mohsen, Baha	Ph.D.	Wayne State University,USA	2024	Industrial Engineering
Mukandavire, Zindoga	Ph.D.	National University of Science and Technology, Zimbabwe	2007	Applied Mathematics

Name	Degree	Institution	Year	Major/ Specialisation
Nasser, Mawada	B.Sc.	Emirates Aviation University, UAE	2018	Aeronautical Engineering
Neelakandan, Deepudev	Ph.D.	National Institute of Technology Tiruchirappalli (NIT-T), India	2021	Machine Learning & Air Traffic Flow Management
Omar, Tarek	MBA	Emirates Aviation University, UAE	2020	General Management
Pantelaki, Evangelia	Ph.D.	University of Insubria, Italy	2021	Transport Economics
Ranclaud, Elif	MA	The University of Sydney, Australia	2005	Applied Linguistics
Rasheed, Zainab	Ph.D.	University of Liverpool, UK	2022	Higher Education
Shepherd, Blessy	Ph.D.	Vellore Institute of Technology, India	2019	Computer Science
Sidhik, Aboobacker	MBA	Emirates Aviation University, UAE	2022	General Management
Soliby, Rfaat Moner	Ph.D.	UTHM University, Malaysia	2023	Applied Mathematics
Souzan Sarraj	B.Eng.	Ajman University, UAE	2020	Electrical Engineering/Communication
Svoboda, Petr	Ph.D.	University of Economics in Prague, Czechia	2018	Economics & Management
Thomas, Toms	M.Sc.	Embry Riddle Aeronautical University, USA	2012	Aerospace Engineering
Tolouei, Elham	Ph.D.	Monash University, Australia	2012	Mechanical Engineering
Uzair Attique	B.Eng	Ajman University, UAE	2015	Electrical Engineering/Instrumentation & Control
Yesodharan, Ajit	M.Sc.	Rochester institute of Technology, USA	2015	Mechanical Engineering
Zuhair, Mhd	B.Eng	Britans Air University Scotland, UK	1965	Aircraft Maintenance Engineering

19. EAU Staff Directory

The full EAU staff directory is also available and updated regularly on the EAU website.

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Appendix A: Curricula

Curriculum of the Bachelor of Business Administration in Aviation Management Programme

For graduation, a student is required to successfully complete a total of 120 credit hours. The breakdown is as follows:

General Education Courses	21 Cr. Hrs.
Department Courses (Compulsory)	54 Cr. Hrs.
Concentration Courses (Compulsory)	36 Cr. Hrs.
Concentration Courses (Electives)	09 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	4	3		
GEN 3020	Cross Cultural Studies	5	3		
Electives					3
GEN 1050	General Psychology	3	3		
GEN 1060	Critical Thinking	3	3		
GEN 1080	History of Science and Technology	3	3		
GEN 3630	Professional IT	3	3	GEN 1030	
Department Courses (Compulsory)					**54**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	2	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	4	3	GEN 1010	
BUS 2030	Statistics for Business	4	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
BUS 3010	Operations Management	3	3		
BUS 3020	Management Information Systems	5	3	GEN 1030	
BUS 3030	Research Methods	6	3		
BUS 3035	Business Law	4	3		
BUS 3045	Internship	8	3	Completion of 75 Cr. Hrs.	
BUS 4010	Management Accounting	5	3	BUS 1045	

BUS 4015	Project Management	6	3	BUS3010	
BUS 4055	Strategic Management	7	3	BUS 1020 & BUS 1050	
Aviation Management Concentration Courses					**45**
Compulsory Courses					36
AVN 1010	The Air Transport Industry	2	3		
AVN 2030	Airline Operations	3	3	AVN 1010	
AVN 2040	Airport Operations	4	3	AVN 1010	
AVN 2060	Air Transport Team Project	5	3	BUS 1045 & AVN 1010	
AVN 3045	Air Transport Quality and Safety	6	3		
AVN 3050	Human Factors in Aviation	7	3	AVN 2030 & AVN 2040	
AVN 4010	Air Transport Economics	6	3	BUS 1015 & BUS 2040	
AVN 4020	Airline Management	7	3	AVN 2030	
AVN 4025	Airport Management	7	3	AVN 2040	
AVN 4030	Research Project	8	3	BUS 3030 & Completion of 90 Cr. Hrs.	
AVN 4060	Air Transport Management (Capstone)	8	3	Completion of 90 Cr. Hrs.	
AVN 4070	Airline Route and Fleet Planning	7	3	AVN 2030	
Electives					9
AVN 3010	Aircraft Design and Performance	6	3		
AVN 3030	Contracts and Negotiation in Air Transport	5	3	BUS 3035	
AVN 4055	Aviation Strategy	8	3	BUS 4020	
AVN 4080	Contemporary Issues in Aviation Management	8	3	Completion of 90 Cr. Hrs.	

Requirements of the Higher Diploma in Aviation Management Exit Award

For graduation, a student is required to successfully complete a total of 90 credit hours. The breakdown is as follows:

General Education Courses	18 Cr. Hrs.
Department Courses (Compulsory)	48 Cr. Hrs.
Concentration Courses (Compulsory)	18 Cr. Hrs.
Concentration Courses (Electives)	06 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses (Compulsory)					**18**
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	4	3		
GEN 3020	Cross Cultural Studies	5	3		
Department Courses (Compulsory)					**48**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	3	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	4	3	GEN 1010	
BUS 2030	Statistics for Business	4	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
BUS 3010	Operations Management	3	3		
BUS 3020	Management Information Systems	5	3	GEN 1030	
BUS 3030	Research Methods	6	3		
BUS 3035	Business Law	5	3		
BUS 4010	Management Accounting	5	3	BUS 1045	
BUS 4015	Project Management	6	3	BUS 3010	
Aviation Management Concentration Courses					**24**
Compulsory Courses					18
AVN 1010	The Air Transport Industry	2	3		
AVN 2030	Airline Operations	3	3	AVN 1010	

AVN 2040	Airport Operations	4	3	AVN 1010	
AVN 2060	Air Transport Team Project	4	3	BUS 1045 & AVN 1010	
AVN 3045	Air Transport Quality and Safety	6	3		
AVN 3050	Human Factors in Aviation	6	3	BUS 2025, AVN 2030 & AVN 2040	
Electives					6
AVN 3010	Aircraft Design and Performance	6	3		
AVN 3030	Contracts and Negotiation in Air Transport	5	3	BUS 3035	
BUS 3045	Internship	6	3	Completion of 75 Cr. Hrs.	BUS 3045

Requirements of the Diploma in Aviation Management Exit Award

For graduation, a student is required to successfully complete a total of 60 credit hours. The breakdown is as follows:

General Education Courses	18 Cr. Hrs.
Department Courses (Compulsory)	30 Cr. Hrs.
Concentration Courses (Compulsory)	12 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses (Compulsory)					**18**
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	3	3		
GEN 3020	Cross Cultural Studies	4	3		
Department Courses (Compulsory)					**30**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	3	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	4	3	GEN 1010	
BUS 2030	Statistics for Business	4	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
Aviation Management Concentration Courses (Compulsory)					**12**
AVN 1010	The Air Transport Industry	2	3		
AVN 2030	Airline Operations	3	3	AVN 1010	
AVN 2040	Airport Operations	4	3	AVN 1010	
AVN 2060	Air Transport Team Project	4	3	AVN 1010 & BUS 1045	

Curriculum of the Bachelor of Business Administration in Global Logistics and Supply Chain Management Concentration

For graduation, a student is required to successfully complete a total of 120 credit hours. The breakdown is as follows:

General Education Courses	21 Cr. Hrs.
Department Courses (Compulsory)	54 Cr. Hrs.
Concentration Courses (Compulsory)	36 Cr. Hrs.
Concentration Courses (Electives)	09 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	4	3		
GEN 3020	Cross Cultural Studies	5	3		
Electives					3
GEN 1050	General Psychology	3	3		
GEN 1060	Critical Thinking	3	3		
GEN 1080	History of Science and Technology	3	3		
GEN 3630	Professional IT	3	3	GEN 1030	
Department Courses (Compulsory)					**54**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	2	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	4	3	GEN 1010	
BUS 2030	Statistics for Business	4	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
BUS 3010	Operations Management	3	3		
BUS 3020	Management Information Systems	5	3	GEN 1030	
BUS 3030	Research Methods	6	3		

BUS 3035	Business Law	5	3		
BUS 3045	Internship	8	3	Completion of 75 Cr. Hrs.	
BUS 4010	Management Accounting	5	3	BUS 1045	
BUS 4015	Project Management	6	3	BUS3010	
BUS 4055	Strategic Management	7	3	BUS 1020 & BUS 1050	
Global Logistics and Supply Chain Management Concentration Courses					**45**
Compulsory Courses					36
BUS 2035	Supply Chain Management	4	3		
BUS 3040	Total Quality Management	6	3	BUS 1030	
MGT 3040	Customer Relationship Management	4	3	BUS 1050	
LSC 1010	Logistics and Distribution Management	3	3		
LSC 2060	Logistics and Supply Chain Team Project	5	3	BUS 1020 & LSC 1010	
LSC 3020	Warehouse and Inventory Management	6	3	LSC 1010	
LSC 3040	Retail and Manufacturing Logistics	7	3	LSC 1010	
MGT 3050	Business Ethics	5	3		
LSC 4010	Procurement and Supplier Management	7	3	BUS 2035	
LSC 4030	Research Project	8	3	BUS 3030 & Completion of 90 Cr. Hrs.	
LSC 4060	Logistics and Supply Chain Management (Capstone)	8	3	Completion of 90 Cr. Hrs.	
LSC 4070	Global Logistics and Supply Chain Management	7	3	BUS 2035	
Electives					9
LSC 4015	Maritime Transport	7	3	LSC 1010	
LSC 4025	Air Transport	7	3	LSC 1010	
LSC 4035	Land Transport	8	3	LSC 1010	
LSC 4050	Contemporary Issues in Logistics and SCM	8	3	Completion of 90 Cr. Hrs.	

Requirement of the Higher Diploma in Global Logistics and Supply Chain Management Concentration

For graduation, a student is required to successfully complete a total of 90 credit hours. The breakdown is as follows:

General Education Courses	18 Cr. Hrs.
Department Courses (Compulsory)	48 Cr. Hrs.
Concentration Courses (Compulsory)	18 Cr. Hrs.
Concentration Courses (Electives)	06 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses (Compulsory)					**18**
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	4	3		
GEN 3020	Cross Cultural Studies	5	3		
Department Courses (Compulsory)					**48**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	2	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	4	3	GEN 1010	
BUS 2030	Statistics for Business	4	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
BUS 3010	Operations Management	3	3		
BUS 3020	Management Information Systems	5	3	GEN 1030	
BUS 3030	Research Methods	6	3		
BUS 3035	Business Law	5	3		
BUS 4010	Management Accounting	5	3	BUS 1045	
BUS 4015	Project Management	6	3	BUS 3010	
Global Logistics and Supply Chain Management Concentration Courses					**24**
Compulsory Courses					18
BUS 2035	Supply Chain Management	4	3		
BUS 3040	Total Quality Management	6	3	BUS 1030	

LSC 1010	Logistics and Distribution Management	2	3		
LSC 2060	Logistics and Supply Chain Team Project	5	3	BUS 1020 & LSC 1010	
LSC 3040	Retail and Manufacturing Logistics	5	3	LSC 1010	
LSC 3020	Warehouse and Inventory Management	6	3	LSC 1010	
Electives					6
LSC 4015	Maritime Transport	5	3	LSC 1010	
LSC4025	Air Transport	6	3	LSC 1010	
BUS 3045	Internship	6	3	Completion of 75 Cr. Hrs.	

Requirement of the Diploma in Global Logistics and Supply Chain Management Concentration

For graduation, a student is required to successfully complete a total of 60 credit hours. The breakdown is as follows:

General Education Courses	18 Cr. Hrs.
Department Courses (Compulsory)	30 Cr. Hrs.
Concentration Courses (Compulsory)	12 Cr. Hrs.

Course		Semester	Cr. Hrs.	Prerequisites	Total Cr. Hrs.
Code	**Title**				
General Education Courses (Compulsory)					**18**
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Environmental Science	2	3		
GEN 2040	Islamic Culture	1	3		
GEN 3015	Innovation and Entrepreneurship	3	3		
GEN 3020	Cross Cultural Studies	4	3		
Department Courses (Compulsory)					**30**
BUS 1010	Math for Business	1	3		
BUS 1015	Microeconomics	2	3		
BUS 1020	Fundamental of Business	1	3		
BUS 1030	Principles and Practice of Management	2	3		
BUS 1045	Financial Accounting	2	3	BUS 1010	
BUS 1050	Principles and Practice of Marketing	2	3	BUS 1020	
BUS 2015	Macroeconomics	3	3	BUS 1015	
BUS 2020	Business Communication	3	3	GEN 1010	
BUS 2030	Statistics for Business	3	3	BUS 1010	
BUS 2040	Corporate Finance	3	3	BUS 1045	
Global Logistics and Supply Chain Management Concentration Courses (Compulsory)					**12**
BUS 2035	Supply Chain Management	4	3		
LSC 1010	Logistics and Distribution Management	4	3		
LSC 2060	Logistics and Distribution Team Project	4	3	BUS 1020, LSC 1010	
LSC 3020	Warehouse and Inventory Management	4	3	LSC 1010	

Curriculum of the Higher Diploma in Business Management

For graduation, a student is required to successfully complete a total of 1320 Guided Learning Hours (GLH). (15-week semester X 4 hrs. per week = 60 GLH per Course). The breakdown is as follows:

General Education courses (Compulsory)	360GLH
Core Courses (Compulsory)	720GLH
Elective courses (Compulsory)	240GLH

Course		Semester	GLH	Pre-requisites	Total GLH
Code	**Title**				
General Education Courses					**360**
GEN 1010	English I	1	60		
GEN 1020	Islamic Culture	2	60		
GEN 1030	Introduction to IT	1	60		
GEN 1040	Environmental Science	2	60		
GEN 3020	Cross Cultural Studies	4	60		
GEN 3015	Innovation and Entrepreneurship	3	60		
Core Courses					**720**
BM 1000	Business and Business Environment	1	60		
BM 1020	Organisational Behaviour	2	60		
BM 1030	Marketing Essentials	1	60		
BM 1050	Managing a Successful Business Project	2	60		
BM 1070	Management Accounting	3	60		
BM 1080	Operations and Project Management	3	60		
BM 1090	Global Business Environment	4	60	BM 1000	
BM 2010	Research Project	5	120		
BM 2030	Human Resource Management	3	60	BM 1020	
BM 2040	Management and Operations	2	60		
BM 2100	Understanding and Leading Change	4	60		
Elective Courses (4 out of 6)					**240**
BM 1010	Financial Accounting	1	60		
BM 1040	Business Law	4	60		
BM 2000	Business Strategy	4	60	BM 1000	
BM 2110	Sales Management	5	60	BM 1030	
BM 2120	Innovation and Commercialism	4	60		
BM 2130	Entrepreneurship and Small Business Management	5	60		

Curriculum of the Bachelor of Science in Aeronautical Engineering Programme

For graduation, a student is required to successfully complete a total of 137 Credit Hours. The breakdown of the 137 Credit Hours is as follows:

General Education courses	21 Credit Hours
Department courses	53 Credit Hours
Major courses (Compulsory)	57 Credit Hours
Major Technical courses (Electives)	06 Credit Hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Course Code	Title				
General Education Courses					**21**
Compulsory Courses					18
GEN 1010	English I	1	3		
GEN 1030	Introduction to IT	1	3		
GEN 1070	Physics	1	3		
GEN 3015	Innovation and Entrepreneurship	2	3		
GEN 2040	Islamic Culture	3	3		
GEN 3020	Cross Cultural Studies	7	3		
Electives					3
GEN 1040	Environmental Science	8	3		
GEN 1050	General Psychology	8	3		
GEN 1060	Critical Thinking	8	3		
GEN 3030	Research Methods	8	3		
GEN 3630	Professional IT	8	3	GEN 1030-Int. to IT	
Department Courses (Compulsory)					**53**
ENG 1000	Introduction to Math	1	3		
ENG 1100	Math I	2	4	ENG 1000-Int. to Math	
ENG 1200	Math II	3	4	ENG 1100-Math I	
ENG 1260	Electrical and Electronic Principles	3	3	GEN 1070-Physics	
ENG 2150	Statics	2	4	ENG 1000-Int. to Mat	
ENG 2210	Manufacturing Technology	1	3		
ENG 2220	Introduction to Programming	2	3		
ENG 2230	Dynamics	3	4	ENG 2150-Statics	
ENG 3250	Math III	4	3	ENG 1200-Math II	
ENG 3260	Math IV	5	4	ENG 3250-Math III	
ENG 3330	Introduction to Mechanical Design	4	3		
ENG 4120	Industrial Training (I) - Live Aircraft Environment (Hangar)	6	3	Completion of 80 Cr. Hrs.	
ENG 4130	Industrial Training (II) - Engines Workshop	6	3	Completion of 80 Cr. Hrs.	

ENG 4140	Industrial Training (III) - Cabin Workshop	6	3	Completion of 80 Cr. Hrs.	
ENG 4150	Industrial Training (IV) - Structures & Avionics Workshop	6	3	Completion of 80 Cr. Hrs.	
ENG 4160	Industrial Training (IV) - Wheels and Brakes Workshop	6	3	Completion of 80 Cr. Hrs.	
Major Courses					**63**
Compulsory Courses					**57**
EAE 3100	Flight Mechanics	5	3		
EAE 3250	Flight Control Systems	5	3	ENG 3250-Math III, ENG 1260-Electrical and Electronic Principles	
EAE 2300	Engineering Thermodynamics	3	3	ENG 1000-Int. to Math	
EAE 2310	Heat Transfer and Combustion	4	3	EAE 2300-Eng. Thermo., EAE 2400-Fluid Mech.	
EAE 2340	Strength of Materials	4	4	ENG 2230-Dynamics	
EAE 2355	Incompressible Aerodynamics	4	3	EAE 2400-Fluid Mech.	
EAE 2400	Fluid Mechanics	2	3	ENG 1000-Int. to Math, GEN 1070-Physics	
EAE 2810	Aircraft Propulsion I	5	3	EAE 2310-Heat Transfer Co-requisites: EAE 3200-Comp. Aero.	
EAE 3200	Compressible Aerodynamics	5	3	EAE 2355-Incomp. Aero.	
EAE 3350	Materials Science and Engineering	3	3	ENG 2150-Statics	
EAE 3365	Aircraft Propulsion II	7	3	EAE 2810-AC Prop. I	
EAE 3370	Experimental Techniques	4	2	EAE 2400-Fluid Mech.	
EAE 4060	Aerospace Project I	7	3	ENG 3330-Introduction to Mech. Design EAE 2810-Aircraft Prop. I EAE 4190-Aircraft Structures I EAE 3200-Comp. Aerodynamics EAE 3250 – Flight Control System Co-requisites: EAE 3365-Aircraft Prop. II EAE 4195-Aircraft Structures II EAE 4250-Aircraft Design I	
EAE 4065	Aerospace Project II	8	3	EAE 4060-Aero. Proj. I	
EAE 4190	Aircraft Structure I	5	3	EAE 2340-Strength of Mat., EAE 3350-Mat. Sc. & Eng.	

EAE 4195	Aircraft Structure II	7	3	EAE 4190-Aircraft Structures I	
EAE 4240	Flight Vehicle Dynamics & Stability	7	3	EAE 3100-Flight Mech. EAE 3250-Flight Control Systems.	
EAE 4250	Aircraft Design I	7	3	EAE 2150-Statics, ENG 3330-Int. to Mech. Design, EAE 3200-Comp. Aero. EAE 4190-AC. Struct-I Co-requisites: EAE 4195-AC. Struct-II. EAE 4240- Flight Veh. Dyn, & Control	
EAE 4255	Aircraft Design II	8	3	EAE 4250-A/C Design I EAE 2810-A/C Prop. I Co-requisite: EAE 3365-A/C. Prop. II	
Major Technical Electives					6
EAE 3820	Modern Automatic Control		3	EAE 3100 – Flight Control System	
EAE 4095	Computational Fluid Dynamics		3	EAE 3200-Comp. Aero., ENG 3260-Math IV	
EAE 4125	Aircraft Engine Simulation and Control		3	EAE 3365-AC. Prop. II	
EAE 4130	Design of Aircraft Engines		3	EAE 3365-AC Prop. II	
EAE 4150	Aircraft Maintenance Engineering		3	EAE 3350-Mat. Sc. & Eng., EAE 2340-Strength of Materials, EAE 2810-AC Prop. I	
EAE 4220	Mechanics of Composite Materials		3	EAE 4190-A/C Struct-I	
EAE 4225	Finite Element Analysis		3	EAE 4190 A/C Struct-I	
EAE 4245	Wind Turbines		3	EAE 2355-Incomp. Aero.	
EAE 4260	Helicopter Aerodynamics		3	EAE 2355-Incomp. Aero.	

Curriculum of the Bachelor of Science in Computer Science Programme

For graduation, a student is required to successfully complete a total of 123 credit hours, including 15 credit hours of internship. The breakdown of the 123 credit hours is as follows:

General Education courses (Compulsory)	18 credit hours
General Education courses (Electives)	03 credit hours
Mathematics and Statistics courses (Compulsory)	11 credit hours
Business courses (Compulsory)	03 credit hours
Major courses (Compulsory)	79 credit hours
Major courses (Electives)	9 credit hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GEN 1010	English I	8	3		
GEN 1030	Introduction to IT	1	3		
GEN 1040	Sustainability and Environmental Science	6/8	3		
GEN 2040	Islamic Culture	8	3		
GEN 3015	Innovation and Entrepreneurship	4	3		
GEN 3020	Cross Culture Studies	8	3		
Electives					3
GEN 1050	General Psychology	4	3		
GEN 1060	Critical Thinking	1	3		
GEN 1070	Physics	4	3		
GEN 1080	History of Science and Technology	4	3		
GEN 2050	Professional Skills Development	4	3	GEN 1030 GEN 1010	
GEN 3630	Professional IT	4	3	GEN 1030	
Mathematics and Statistics Courses (Compulsory)					**11**
MTH 1101	Introduction to Math	1	3		
MTH 1202	Algebra and Calculus	2	3	MAT 1101	
STA 1201	Statistics and Empirical Methods	2	2		
STA 2102	Linear Statistical Models	3	3	STA 1201	
Business Courses (Compulsory)					**3**
BUS 2020	Advanced Communication Studies	4	3	GEN 1010	
Major Courses					**79**
CSC (Computer Science) Compulsory Courses					52
CSC 1110	Programming Fundamentals	1	3		
CSC 1020	Object – Oriented Programming	2	3	CSC 1110	
CSC 1030	Data Structures and Algorithms	3	3	CSC 1020	
CSC 1150	Discrete Structures	3	4		
CSC 2010	Web Design	2	3		
CSC 2200	Computer Architecture	3	3		
CSC 2210	Fundamentals of Database Systems	1	3		

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Code	**Title**				
CSC 2260	Operating Systems	4	3	CSC 1030	
CSC 2270	Computer Communications and Net works	5/8	3	CSC 2260	
CSC 2310	Internship	7	15	Completion of 70 Cr. Hrs	
CSC 3200	Advanced Database Systems	3	3	CSC 2210	
CSC 3100	Social Issues and Professional Practice	2	3		
CSC 2400	Software Engineering	4	3	CSC 1020	
Major Concentration in Artificial Intelligence (AI) Compulsory Courses					27
AI 2010	Introduction to Artificial Intelligence	5	3		
AI 3220	Security	6	3	CSC 2270	
AI 3110	Machine Learning and Related Applications	5	3		
AI 3120	Neural Networks	6	3	AI 2010	
AI 4110	Intelligent Agents	6	3	AI 2010	
CSC 3120	Theory of Computation	5	3		
AI 4207	Computer Vision	8	3		
AI 4108	Individual Project Preparation	5	3	Completion of 90 Cr. Hrs	
AI 4209	Individual Project	6	3	AI4108	
Major Concentration in Data Science (DS) Compulsory Courses					27
DS 2010	Data Science and Distributed Computing	5	3	CSC 2210	
DS 3110	Statistical Computing	5	3	STA 1201	
AI 3110	Machine Learning and Related Applications	5	3		
DS 4110	Big Data Management and Data Visualisation	8	3	CSC 3200	
DS 4120	Statistical Design and Modelling	6	3	DS 3110	
MTH3103	Optimisation	5	3		
MTH3204	Advanced Linear Algebra and its Applications	6	3		
DS 4106	Project Preparation	5	3	Completion of 90 Cr. Hrs	
DS 4107	Project	6	3	DS 4106	
Electives					9
CSC 4230	Computer Graphics	7/8	3	CSC 1020	
AI 4240	Introduction to Decision Support Systems	7/8	3		
CSC 4250	Web Development Technologies	5	3	CSC 2010	
DS 4260	Data Mining and Warehousing	7/8	3	STA 1201, CSC 3200	
CSC 4110	Mobile Applications	7/8	3	CSC 1020, CSC 4250	
DS 4270	Big Data Tools and Technologies	7/8	3	CSC 3200	
CSC 4210	Software Quality Assurance and Testing	7/8	3	CSC 2400	
CSC 3221	Cryptography and Information Theory	6	3		

Curriculum of the Applied Bachelor in Aerospace Engineering Programme

For graduation, a student is required to successfully complete a total of 132 Credit Hours including 20 Credit Hours of Industrial Training. The breakdown of the 132 Credit Hours is as follows:

General Education courses	21 Credit Hours
Engineering courses	42 Credit Hours
Math Courses	09 Credit Hours
Business Courses	06 Credit Hours
Industrial Training	20 Credit Hours
Major AE courses (Compulsory)	34 Credit Hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Course Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GE100	English I	1	3		
GE101	Introduction to IT	2	3		
GE102	Innovation and Entrepreneurship	3	3		
GE103	Islamic Culture	3	3		
GE104	Environmental Science	4	3		
GE105	Cross Culture Studies	4	3		
Electives					3
GE106	Critical Thinking	7	3		
GE107	General Psychology	7	3		
GE108	Research Methods	7	3		
GE109	Professional IT	7	3	GE101 – Introduction to IT	
Departmental Courses					**77**
Engineering Courses					**42**
EG101	Electrical Electronic and Digital Principles	1	4		
EG103	Construction and Operation of Aircraft Fluid Systems	2	4		
EG104	Basic Thermodynamics	2	3		
EG105	Aircraft Systems Principles and Applications	2	3		
EG107	Basic Aerodynamics	3	4		
EG108	Materials Engineering	4	3		

EG116	Aerospace Technology II	7	5	EG107- Basic Aerodynamics	
EG117	Control and Instrumentation	7	5	EG101 – Electrical Electronic and Digital Principles and MA102 – Advanced Mathematics	
EG118	Aerospace Applications	7	4	AE100 - Basic Aircraft Workshop Practices or AV100 - Basic Electrical and Electronic Workshop Practices	
EG1XX	EG Elective 1	1	3		
EG2XX	EG Elective 2	5	4		
Math Courses					**09**
MA100	Analytical Methods for Engineers	1	3		
MA101	Further Analytical Methods for Engineers	2	3	MA100 - Analytical Methods for Engineers	
MA102	Advanced Mathematics	3	3	MA101 - Further Analytical Methods for Engineers	
Business Courses					**06**
BS100	Business Management Techniques for Engineers	3	3		
BS101	Project Management	8	3	BS100 - Business Management Techniques for Engineers	
Industrial Training Courses					**20**
IND100	Industrial Training (I)	6	4	70 Cr. Hrs	
IND101	Industrial Training (II)	6	4	70 Cr. Hrs	
IND102	Industrial Training (III)	6	4	70 Cr. Hrs	
IND103	Industrial Training (IV)	6	4	70 Cr. Hrs	
IND104	Industrial Training (V)	6	4	70 Cr. Hrs	
OJT100	On Job Training I *	5	0	Completion of 30 Cr. Hrs	
Major AE Courses					**34**
Compulsory AE Courses					34
AE100	Basic Aircraft Workshop Practices	1	4		
AE101	Avionics Systems I	4	4		
AE102	Further Aerodynamics	4	4	EG107 - Basic Aerodynamics	

AE103	Aircraft Gas Turbine Science	5	3	EG104 - Basic Thermodynamics	
AE104	Aerospace Project Design	5	4		
AE105	Aircraft Propulsion Technology	5	4		
AE106	Aircraft Structure	5	4	EG108 - Materials Engineering	
AE107	Aerospace Industrial Studies	8	3		
AE108	Individual Aerospace Project	8	4	AE100 –Basic Aircraft Workshop Practices and EG109 -Engineering Design or EG121 - Computer Aided Design and Manufacture	
Elective Courses					
EG100	Engineering Science	1	3		
EG102	Statics	1	3		
EG109	Engineering Design	5	4		
EG121	Computer Aided Design and Manufacture	5	4	AE100 - Basic Aircraft Workshop Practices or ME100 - Mechanical Workshop Practices	

Notes:

- * OJT100 – On Job Training I non credited course will be offered for those students who opt for a Diploma or Advance Diploma exit award.

Curriculum of the Applied Bachelor in Avionics Engineering Programme

For graduation, a student is required to successfully complete a total of 133 Credit Hours including 20 Credit Hours of Industrial Training. The breakdown of the 133 Credit Hours is as follows:

General Education courses	21 Credit Hours
Engineering courses	36 Credit Hours
Math Courses	09 Credit Hours
Business Courses	06 Credit Hours
Industrial Training	20 Credit Hours
Major AV courses (Compulsory)	41 Credit Hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Course Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GE100	English I	1	3		
GE101	Introduction to IT	2	3		
GE102	Innovation and Entrepreneurship	3	3		
GE103	Islamic Culture	3	3		
GE104	Environmental Science	4	3		
GE105	Cross Culture Studies	4	3		
Electives					3
GE106	Critical Thinking	7	3		
GE107	General Psychology	7	3		
GE108	Research Methods	7	3		
GE109	Professional IT	7	3	GE101- Introduction to IT	
Departmental Courses					**71**
Engineering Courses					**36**
EG101	Electrical Electronic and Digital Principles	1	4		
EG103	Construction and Operation of Aircraft Fluid Systems	2	4		
EG107	Basic Aerodynamics	3	4		
EG116	Aerospace Technology II	7	5	EG107 - Basic Aerodynamics	
EG117	Control and Instrumentation	7	5	EG101 – Electrical Electronic and Digital Principles and MA102 - Advanced Mathematics	
EG118	Aerospace Applications	7	4	AE100 - Basic Aircraft Workshop Practices or AV100 - Basic	

				Electrical and Electronic Workshop Practices	
EG1XX	EG Elective 1	1	3		
EG2XX	EG Elective 2	2	3		
EG3XX	EG Elective 3	5	4		
Math Courses					**09**
MA100	Analytical Methods for Engineers	1	3		
MA101	Further Analytical Methods for Engineers	2	3	MA100 - Analytical Methods for Engineers	
MA102	Advanced Mathematics	3	3	MA101 - Further Analytical Methods for Engineers	
Business Courses					**06**
BS100	Business Management Techniques for Engineers	3	3		
BS101	Project Management	8	3	BS100 - Business Management Techniques for Engineers	
Industrial Training Courses					**20**
IND100	Industrial Training (I)	6	4	70 Cr. Hrs	
IND101	Industrial Training (II)	6	4	70 Cr. Hrs	
IND102	Industrial Training (III)	6	4	70 Cr. Hrs	
IND103	Industrial Training (IV)	6	4	70 Cr. Hrs	
IND104	Industrial Training (V)	6	4	70 Cr. Hrs	
OJT100	On Job Training I *	5	0	Completion of 30 Cr. Hrs	
Major AV Courses					**41**
Compulsory AV Courses					41
AV100	Basic Electrical and Electronic Workshop Practices	1	4		
AV101	Combinational and Sequential Logic	2	4		
AV102	Digital and Analogue Devices and Circuits	4	4	EG101 - Electrical Electronic and Digital Principles	
AV103	Electronic Principles	4	4	EG101 - Electrical Electronic and Digital Principles	
AV104	Aircraft Communication and Navigation Systems	4	3		
AV105	Integrated Flight Instrument Systems	5	3		
AV106	Automatic Flight Control Systems	5	3	EG103 - Construction and Operation of Aircraft Fluid Systems	
AV107	Electrical and Electronic Principles	5	4	AV103 - Electronic Principles	
AV108	Avionics Project Design	5	4		

AV109	Avionics Systems II	8	4	AV104 - Aircraft Communication and Navigation Systems	
AV110	Individual Avionics Project	8	4	AV100 – Basic Electrical and Electronic Workshop Practices and EG109 - Engineering Design or EG121 - Computer Aided Design and Manufacture	
Elective Courses					
EG100	Engineering Science	1	3		
EG102	Statics	1	3		
EG104	Basic Thermodynamics	2	3		
EG105	Aircraft Systems Principles and Applications	2	3		
EG109	Engineering Design	5	4		
EG119	Mechatronics	2	3	EG101 - Electrical Electronic and Digital Principles and MA100 - Analytical Methods for Engineers	
EG120	Robotics	2	3	EG101 - Electrical Electronic and Digital Principles and MA100 - Analytical Methods for Engineers	
EG121	Computer Aided Design and Manufacture	5	4	AE100 - Basic Aircraft Workshop Practices or ME100 - Mechanical Workshop Practices	

Notes:

- * OJT100 – On Job Training I non credited course will be offered for those students who opt for a Diploma or Advance Diploma exit award.

For graduation, a student is required to successfully complete a total of 129 Credit Hours including 20 Credit Hours of Industrial Training. The breakdown of the 129 Credit Hours is as follows:

General Education courses	21 Credit Hours
Engineering courses	28 Credit Hours
Math Courses	09 Credit Hours
Business Courses	06 Credit Hours
Industrial Training	20 Credit Hours
Major ME courses (Compulsory)	45 Credit Hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Course Code	**Title**				
General Education Courses					**21**
Compulsory Courses					18
GE100	English I	1	3		
GE101	Introduction to IT	2	3		
GE102	Innovation and Entrepreneurship	3	3		
GE103	Islamic Culture	3	3		
GE104	Environmental Science	4	3		
GE105	Cross Culture Studies	4	3		
Electives					3
GE106	Critical Thinking	7	3		
GE107	General Psychology	7	3		
GE108	Research Methods	7	3		
GE109	Professional IT	7	3	GE101 – Introduction to IT	
Departmental Courses					**63**
Engineering Courses					**28**
EG101	Electrical Electronic and Digital Principles	1	4		
EG102	Statics	1	3		
EG104	Basic Thermodynamics	2	3		
EG106	Dynamics	2	3	EG102 - Statics	
EG108	Materials Engineering	4	3		
EG117	Control and Instrumentation	7	5	EG101 - Electrical Electronic and Digital Principles and MA102 – Advanced Mathematics	
EG1XX	EG Elective 1	4	4		
EG2XX	EG Elective 2	5	3		
Math Courses					**9**

MA100	Analytical Methods for Engineers	1	3		
MA101	Further Analytical Methods for Engineers	2	3	MA100 - Analytical Methods for Engineers	
MA102	Advanced Mathematics	3	3	MA101 - Further Analytical Methods for Engineers	
Business Courses					**06**
BS100	Business Management Techniques for Engineers	3	3		
BS1XX	BS Elective	8	3	BS100 - Business Management Techniques for Engineers	
Industrial Training Courses					**20**
IND100	Industrial Training (I)	6	4	70 Cr. Hrs	
IND101	Industrial Training (II)	6	4	70 Cr. Hrs	
IND102	Industrial Training (III)	6	4	70 Cr. Hrs	
IND103	Industrial Training (IV)	6	4	70 Cr. Hrs	
IND104	Industrial Training (V)	6	4	70 Cr. Hrs	
OJT100	On Job Training I *	5	0	Completion of 30 Cr. Hrs	
Major ME Courses					**45**
Compulsory ME Courses					45
ME100	Mechanical Workshop Practices	1	4		
ME101	Mechanical Principles	2	3	Co Req: EG106 - Dynamics	
ME102	Advanced Thermodynamics and Heat Engine	3	4	EG104 - Basic Thermodynamics	
ME103	Strength of Materials	4	4	EG102 - Statics	
ME104	Fluid Mechanics	5	4	EG102 - Statics	
ME105	Mechanical Project Design	5	4		
ME106	Manufacturing Process	5	4		
ME108	Mechanical Applications	7	4	ME100 - Mechanical Workshop Practices	
ME109	Mechanical Systems Modelling	7	4	EG106 - Dynamics	
ME110	Individual Mechanical Project	8	4	ME100 - Mechanical Workshop Practices and EG109 - Engineering Design or EG121 - Computer Aided Design and Manufacture	
ME111	Mechanical Industry and Professional Studies	8	3		
ME1XX	ME Elective	5	3		
Elective Courses					

EG107	Basic Aerodynamics	4	4		
EG109	Engineering Design	4	4		
EG110	Health, Safety and Risk Assessment in Engineering	5	3		
EG119	Mechatronics	5	3	EG101 - Electrical Electronic and Digital Principles and MA100 - Analytical Methods for Engineers	
EG120	Robotics	5	3	EG101 - Electrical Electronic and Digital Principles and MA100 - Analytical Methods for Engineers	
EG121	Computer Aided Design and Manufacture	4	4	AE100 - Basic Aircraft Workshop Practices or ME100 - Mechanical Workshop Practices	
ME107	Application of Machine Tools	5	3		
ME112	Heating Ventilation and Airconditioning	5	3		
ME113	Gas Dynamics	5	3	ME104 - Fluid Mechanics	
BS101	Project Management	5	3		
BS102	Total Quality Management	5	3		

Notes:

- * OJT100 – On Job Training I non credited course will be offered for those students who opt for a Diploma or Advance Diploma exit award.

For graduation, a student is required to successfully complete a total of 150 Credit Hours including 06 Credit Hours of Industrial Training. The breakdown of the 150 Credit Hours is as follows:

General Education courses	21 Credit Hours
Industrial Training	06 Credit Hours
Major AME courses (Compulsory)	95 Credit Hours
Top-Up AME courses	28 Credit Hours

Course		Semester	Credit Hours	Prerequisites	Total Credit Hours
Course Code	Title				
General Education Courses					**21**
Compulsory Courses					18
GE100	English I	1	3		
GE101	Introduction to IT	2	3		
GE102	Innovation & Entrepreneurship	6	3		
GE103	Islamic Culture	6	3		
GE104	Environmental Science	5	3		
GE105	Cross Culture Studies	5	3		
Electives					3
GE106	Critical Thinking	6	3		
GE107	General Psychology	6	3		
GE108	Research Methods	6	3		
GE109	Professional IT	6	3	GE101 - Introduction to IT	
Industrial Training Courses					**6**
AMT101	Industrial Training (I)	6	3	40 Cr. Hrs	
AMT102	Industrial Training (II)	6	3	40 Cr. Hrs	
Major AME Courses					**95**
Compulsory AME Courses					95
AME101	Engineering Mathematics I (1 B)	1	3		
AME102	Engineering Science I (2 B)	1	4		
AME103	Electrical Fundamentals (3 B)	1	9		
AME104	Electronic Fundamentals (4 B)	2	4		
AME105	Digital Techniques and Avionics (5 B)	3	7.25	AME104 - Electronic Fundamentals (4 B)	
AME106	Aircraft Materials and Hardware (6 B)	2	8.5		
AME107	Maintenance Practices (7 B)	3	11		
AME108	Basic Aerodynamics (8 B)	1	3		

AME109	Human Factors in Aircraft Engineering (9 B)	2	3		
AME110	Aviation Legislation (10 B)	3	3.5		
AME111	Turbine Aeroplane Aerodynamics, Structures And Systems (11 B1)	4	15.75	AME104 - Electronic Fundamentals (4 B) & AME108 – Basic Aerodynamics (8B)	
AME115	Gas Turbine Engines (15 B1)	5	16		
AME117	Propellers (17 B1)	4	3		
AMW107A	Maintenance Practices Workshop A	2	2.5		
AMW107B	Maintenance Practices Workshop B	4	1.5		
Top-up Courses					28
MA103	Engineering Mathematics II		3	AME101 - Engineering Mathematics I (1 B)	
BS102	Total Quality Management		3		
EG122	Engineering Science II		3	AME102 - Engineering Science I (2 B)	
AE107	Aerospace Industry Studies		3		
AME200	Aircraft Maintenance Management		3		
AME201	Airworthiness		3	AME110 - Aviation Legislation (10 B)	
AME202	Individual Maintenance Project		4	AME101 - Engineering Mathematics I (1 B) & AME103 - Electrical Fundamentals (3 B) & AME107 - Maintenance Practices (7 B)	
AME203	Aerospace Technology II		3	AME108 - Basic Aerodynamics (8 B)	
AME204	Aircraft Safety, Security and Emergency Planning		3		

Appendix B: Programme Learning Outcomes

The following pages show the learning outcomes of each undergraduate academic/ applied programmes, offered by EAU, followed by a matrix indicating the mapping of those outcomes to the UAE Qualification Framework.

Bachelor of Business Administration (BBA Programme)

Aim & Goals

The aim is to graduate students who are educated to the highest international standards and practices in business administration, and their disciplinary concentration, and possess the knowledge and life skills necessary to become productive members of the global workforce or pursue further studies in a relevant field of study.

Goal 1 – KU	The graduate will have a profound and robust knowledge of: local, national and international markets, accepted business strategies and techniques, conventional and complex financial standards, the management and development of people, and the skilled deployment of resources and operational management as they pertain to the individual discipline in established and emerging economies
Goal 2 – CS	The graduate will be able to deploy a wide range of relevant skills and competences in order to be productive in a graduate level role in an organisation, including excellent numeracy and quantitative analytical skills, communication skills and problem-solving capabilities
Goal 3 – PS	The graduate will have proven skills in critical thinking, analysis and synthesis and independent learning gained in educational and business environments. The graduate will be ready to play a full part in a collaborative effort and be able to deploy state-of-the-art ICT solutions to a full range of business challenges
Goal 4 – TS	As a global citizen, the graduate will be skilled in effective communication in a range of personal and business situations and will be able to identify ethical issues and address them in a socially responsible manner

BBA Programme

Learning Outcomes of the Named BBA Award

On successful completion of the BBA programme, the graduate will be able to:

Knowledge and Understanding

KU1: Demonstrate a comprehensive knowledge and understanding of the business environment, business strategy and the main functional areas of business organisations

KU2: Demonstrate a comprehensive knowledge and understanding of contemporary business theories and practice, particularly in relation to the disciplinary concentration

Cognitive Skills

CS1: Formulate, suggest and communicate solutions to business problems using appropriate methodologies, analysis and research techniques.

CS2: Apply knowledge of business and management, including that of the disciplinary concentration, into practice.

Practical Skills:

PS1: Use a range of relevant tools and technologies in business and management context

PS2: Work effectively with others and in team environments

Transferable Skills

TS1: Communicate effectively, orally and in writing

TS2: Identify ethical issues and address them in a socially responsible manner

TS3: Develop Proficiency to make effective decisions in a global business setting

Higher Diploma Award

Programme Learning Outcomes-QFEmirates Level 6 Descriptors Mapping Matrix

QFEmirates Level 6 Descriptor (Learning Outcome)		KU		CS		PS		TS		
		1	2	1	2	1	2	1	2	3
Knowledge	specialised factual knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with depth in the underlying understanding of the principles and concepts	√	√							
	an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of para-professional respective discipline including related regulations, standards, codes, conventions	√	√							
	an understanding of critical approach and analysis, research approaches and methods and analytical problem-solving techniques from a range of sources	√	√							
	familiarity with sources of current and existing knowledge and the integration of concepts from related fields	√	√							
	literacy to comprehend and/or produce coherent texts, covering complex and/or diverse relations from a wide-range of information	√	√							
	numeracy covering a wide-range of mathematical procedures and representations used across a broad-range of contexts	√	√							
Skill	specialist technical, creative and conceptual skills appropriate to solving complex problems associated with a field of work or discipline			√	√					
	a comprehensive range of specialist cognitive and practical skills appropriate to planning and implementing solutions to varied, unpredictable and unfamiliar problems within a field of work or discipline			√	√					

		selection and use of appropriate research tools and strategies associated with the field of work or discipline			√	√					
		advanced communication and information technology skills to present, explain and/or critique interdependent complex matters					√		√		
		literacy skills to comprehend and/or produce, from a wide-range of information, coherent texts covering complex and/or diverse relations									
		numeracy skills to select, apply, assess and communicate a wide-range mathematical procedures and representations in a broad-range of contexts					√		√		
Aspects of Competence	**Autonomy and responsibility**	can take responsibility for developing appropriate approaches to managing complex work procedures and processes, resources or learning, including leading teams within a technical or professional activity with little support				√					
		can supervise technical, supervisory or design processes in varied, unpredictable, unfamiliar and a broad-range of contexts				√					
		can work effectively as a specialist or in team leadership roles						√			
		can express an internalised, personal world view, reflecting engagement in society at large and in socio-cultural relationships				√					√
	Role in context	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles under guidance				√	√				
		can take responsibility for the setting and achievement of group outcomes and for the supervision of the work of others						√			
		can take responsibility for supervising the development of individuals and groups						√			
		can participate in peer relationships with qualified practitioners and lead multiple groups						√			
	Self-deve lop	can evaluate own learning and identify learning weaknesses and needs, in a familiar and unfamiliar environment				√					

		can take initiative to address learning needs and function independently and within learning groups				√					
		can support and observe ethical standards								√	

Diploma Award

Programme Learning Outcomes-QFEmirates Level 5 Descriptors Mapping Matrix

QFEmirates Level 5 Descriptor (Learning Outcome)		KU		CS		PS		TS		
		1	2	1	2	1	2	1	2	3
Knowledge	comprehensive, specialised knowledge within a broad field of work or discipline, including an understanding of the underlying theoretical and abstract concepts with significant depth in some areas	√	√							
	a broad understanding of allied knowledge and theories in related fields of work or disciplines including related regulations, standards, codes, conventions and procedures	√	√							
	an understanding of information assembly, retrieval methods and logical problem-solving techniques from a range of sources	√	√							
	recognition of sources of current knowledge and the integration of concepts from related fields	√	√							
	literacy to comprehend and/or produce coherent texts covering complex relations from an array of information and contexts	√	√							
	numeracy covering an array of mathematical procedures and representations and contexts	√	√							
Skill	technical, creative and conceptual skills appropriate to solving a wide-range of problems associated with a field of work or discipline that include a comprehensive range of specialist cognitive and practical skills appropriate to diagnosing and implementing solutions to abstract, familiar and non-routine problems within a field of work or discipline			√	√					
	use of appropriate information retrieval methods and tools and techniques associated with the field of work or discipline			√	√					
	comprehensive communication and information technology skills to present, explain and/or critique complex matters			√	√					

		literacy skills to comprehend and/or produce, from array of information, coherent texts covering complex relations					√		√			
		numeracy skills to select, apply, reflect and communicate an array of mathematical procedures and representations and contexts					√		√			
Aspects of Competence	**Autonomy and responsibility**	can take responsibility for coordinating the implementation of appropriate approaches to complex work procedures and processes, resources or learning, including leading teams within a technical or para-professional activity				√						
		can exercise coordination and/or supervision in routine, familiar and some non-routine work or learning contexts				√						
		can coordinate technical, design processes in routine, familiar, nonroutine and an array of contexts with support available, if required						√				
		can express an internalised, personal world view, in the context of an understanding of socio-cultural relationships				√						√
	Role in context	can function with autonomy in technical and coordination contexts and support paraprofessional roles under guidance				√	√					
		can function both independently and in a coordination role with multiple groups						√				
		can take responsibility for coordinating the development of individuals and groups						√				
		can review and develop the performance of self and others						√				
	Self-development	can evaluate own learning and identify learning needs in a familiar environment				√						
		can take responsibility for and plan own learning within a managed and non-routine environment				√						
		can comprehend and observe ethical standards								√		

Bachelor of Science in Aeronautical Engineering Programme

Programme Outcomes

The outcomes of the Aeronautical Engineering Programme are in conformity with those listed under Criterion 3 of ABET EC2000. The outcomes are listed as follows:

A1: Ability to apply knowledge of mathematics, science, and engineering.

A2: Ability to identify, formulate, and solve engineering problems.

B1: Ability to design and conduct experiments, as well as to analyse and interpret data

B2: Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

C1: Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

C2: Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context.

D1: Recognition of the need for, and an ability to engage in life-long learning.

D2: Knowledge of contemporary issues.

E1: Ability to function on multidisciplinary teams.

E2: Understanding of professional and ethical responsibility.

E3: Ability to communicate effectively

National Standards of Learning Outcomes for Bachelor Programmes (UAENQF Level 7)	Learning Outcomes of the B.Sc. in Aeronautical Engineering										
	A1	**A2**	**B1**	**B2**	**C1**	**C2**	**D1**	**D2**	**E1**	**E2**	**E3**
I. Knowledge											
1. Specialised factual and theoretical knowledge and an understanding of the boundaries in a field of work or learning	X				X						
2. Encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts	X										
3. Familiarity with sources of new research and knowledge with integration of concepts from outside fields							X				
II. Skill											
1. Technical, creative and analytical skills appropriate to solving specialised problems using evidentiary and procedural based processed to predictable and new contexts associated with a field of work or learning, encompassing evaluating, selecting and applying appropriate methods, procedure s or techniques in process of investigation to identified solution		X									
2. Selection of appropriate research tools and strategies associated with the field of work or learning				X							
3. Highly developed advanced communication and technology skills to present, explain and/ or critique complex matters											X
National Standards of Learning Outcomes for Bachelor Programmes (UAENQF Level 7)	**Learning Outcomes of the B.Sc. in Aeronautical Engineering**										
	A1	**A2**	**B1**	**B2**	**C1**	**C2**	**D1**	**D2**	**E1**	**E2**	**E3**
III. Autonomy and responsibility											
1. Can take responsibility for developing new and advanced approaches to managing or evaluating complex and unpredictable work procedures and processes, resources or learning, including leading teams within a technical or professional activity		X	X			X					

2. Can manage technical, supervisory or design processes in unpredictable contexts										X	
3. Can work creatively and/ or efficiently as an individual or in team leadership or managing contexts									X		
4. Can expressed as an internalised, personal view, and accept responsibility to society at large and to socio–cultural norms and relationships										X	
IV. Self - development											
1. Can self – evaluate and take responsibility for contributing to professional practice and further learning							X				
2. Can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning context								X			
3. Can take initiative to address learning needs and functions independently within learning groups							X				
4. Can contribute and observed ethical standards					X					X	
National Standards of Learning Outcomes for Bachelor Programmes (UAENQF Level 7)	**Learning Outcomes of the B.Sc. in Aeronautical Engineering**										
	A1	**A2**	**B1**	**B2**	**C1**	**C2**	**D1**	**D2**	**E1**	**E2**	**E3**
V. Role in context											
1. Can function with full autonomy in technical and supervisory contexts and adopt professional roles with little guidance			X								
2. Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of specialisation in field of work or learning									X		
3. Can take responsibility for managing the professional development of individuals and groups										X	

4. Can participate in peers relationships with qualified practitioners and lead multiple, complex groups									X		X

Bachelor of Science in Computer Science Programme (AI &DS)

The PLOs of the BSCS program are:

- **CS1**. Apply current theories, models, and techniques in computer science and related areas, to design complex computing systems for real-world problems that integrate ethical, social, legal, economic and sustainability related concerns.

- **CS2**. Develop and optimise algorithms to solve problems in computer science.

- **CS3**. Analyse the modern computer architectures with an emphasis on maintaining system security and sustainability.

- **CS4.** Exercise effective work habits like time management, teamwork, innovation, entrepreneurship and communication with stakeholders.

PLOs Specific to the Data Science Concentration:

- **DS1**. Demonstrate an understanding of identifying assumptions, logic behind arguments, and conclusions drawn based on those arguments and assumptions in the data science discipline.

- **DS2**. Analyse statistical and mathematical models using appropriate methods and tools in the area of data science.

- **DS3**. Use the knowledge and tools of computing in the area of data science.

- **DS4**. Solve real-world data science problems using appropriate programming languages and tools.

- **DS5**. Perform computations with various type of datasets to discover hidden patterns using modern machine learning techniques and tools.

PLOs Specific to the Artificial Intelligence Concentration:

- **AI1**. Create practical working solutions to diverse computational and real-world problems using suitable artificial intelligence techniques.

- **AI2**. Evaluate various artificial intelligence system architectures with a focus on maintaining their security.

- **AI3.** Perform computations with various type of datasets to discover hidden patterns using modern machine learning techniques and tools.

Mapping of the National Standards with the Programme Learning Outcomes

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the **Bachelor of Science in Computer Science with Concentration in Artificial Intelligence**										
	CS1	**CS2**	**CS3**	**CS4**	**AI1**	**AI2**	**AI3**				
I. Knowledge											
1. Specialised factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts	√										
2. An understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions	√										
3. Understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources		√			√						
4. A comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques		√			√						
5. Familiarity with sources of current and new research and knowledge with integration of concepts from outside fields			√			√					
II. Skill											

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the **Bachelor of Science in Computer Science with Concentration in Artificial Intelligence**										
	CS1	**CS2**	**CS3**	**CS4**	**AI1**	**AI2**	**AI3**				
1. Technical, creative and analytical skills appropriate to solving specialised problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline		√			√						
2. Evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions		√					√				
3. Evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline			√			√					
4. Highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters				√							
III. Autonomy and responsibility											
1. Can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning				√							

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the **Bachelor of Science in Computer Science with Concentration in Artificial Intelligence**										
	CS1	**CS2**	**CS3**	**CS4**	**AI1**	**AI2**	**AI3**				
2. Can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts				√							
3. Can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities				√							
4. Can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	√										
IV. Role in context											
1. Can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance				√							
2. Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialisation in field of work or discipline				√							
3. Can participate in peer relationships with qualified practitioners and lead multiple, complex groups				√							

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the **Bachelor of Science in Computer Science with Concentration in Artificial Intelligence**										
	CS1	**CS2**	**CS3**	**CS4**	**AI1**	**AI2**	**AI3**				
4. Can take responsibility for managing the professional development and direct mentoring of individuals and groups				√							
V. Self - development											
1. Can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning											
2. Can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts											
3. Can contribute to and observe ethical standards	√										

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the Bachelor of Science in Computer Science with Concentration in Data Science										
	CS1	**CS2**	**CS3**	**CS4**	**DS1**	**DS2**	**DS3**	**DS4**	**DS5**		
I. Knowledge											
1. Specialised factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts	√				√						
2. An understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions	√						√				
3. Understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources		√									
4. A comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques		√						√			
5. Familiarity with sources of current and new research and knowledge with integration of concepts from outside fields			√			√					

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the Bachelor of Science in Computer Science with Concentration in Data Science										
	CS1	CS2	CS3	CS4	DS1	DS2	DS3	DS4	DS5		
II. Skill											
1. Technical, creative and analytical skills appropriate to solving specialised problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline		√							√		
2. Evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions		√				√					
3. Evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline			√			√					
4. Highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters				√							
III. Autonomy and responsibility											

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the Bachelor of Science in Computer Science with Concentration in Data Science										
	CS1	**CS2**	**CS3**	**CS4**	**DS1**	**DS2**	**DS3**	**DS4**	**DS5**		
1. Can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning				√							
2. Can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts				√							
3. Can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities				√							
4. Can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	√										
IV. Role in context											
1. Can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance				√							

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the Bachelor of Science in Computer Science with Concentration in Data Science										
	CS1	**CS2**	**CS3**	**CS4**	**DS1**	**DS2**	**DS3**	**DS4**	**DS5**		
2. Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialisation in field of work or discipline				√							
3. Can participate in peer relationships with qualified practitioners and lead multiple, complex groups				√							
4. Can take responsibility for managing the professional development and direct mentoring of individuals and groups				√							
V. Self - development											
1. Can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning											
2. Can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts											

National Standards of Learning Outcomes for Bachelor Programs (UAENQF Level 7)	Learning Outcomes of the Bachelor of Science in Computer Science with Concentration in Data Science										
	CS1	**CS2**	**CS3**	**CS4**	**DS1**	**DS2**	**DS3**	**DS4**	**DS5**		
3. Can contribute to and observe ethical standards	√										

Applied Bachelor in Aerospace Engineering

Intended Learning Outcomes

The aim is to graduate students who are educated to the highest international standards and practices in engineering fields and possess the necessary knowledge to become productive members of the global workforce or pursue further studies in a relevant field of study.

Goal 1 – KU	The graduate will have a profound and robust knowledge of the analysis of various engineering fundamentals, key principles of mechanical and electrical science, aspects of the design process and the function and operation of various industries.
Goal 2 – CS	The graduate will be able to solve & analyse engineering problems and designs in relation to Aerospace and Aeronautical application. In addition graduate will be able to have knowledge of the design process, aerospace design standards, selection of materials and the international operation of the aerospace industry. Moreover, graduate will be able to Search and evaluate information sources to interpret constraints related to engineering context.
Goal 3 – PS	The graduate will have proven skills in conducting experiments, employing appropriate engineering tools to analyse engineering designs, work on various engineering system safely and construct and maintain engineering documentation.
Goal 4 – TS	The graduate will be able to communicate effectively and apply skills in both technical and non-technical environments, work in multidisciplinary teams, identify ethical issues and address them in a socially responsible manner.

Applied Bachelor in Aerospace Engineering

Learning Outcomes

On successful completion of any of the programmes, the graduate will be able to:

Knowledge and Understanding

KU1: Apply comprehensive knowledge and techniques to understand various engineering principles related to mathematics, science and systems.

KU2: Understand the function and operational process of aviation and other engineering industries and design process.

Cognitive Skills

CS1: Solve & analyse engineering problems.

CS2: Research and evaluate different solution for engineering problems.

Practical Skills:

PS1: Use a range of relevant tools and technologies in engineering context.

PS2: Work effectively in team environments.

Transferable Skills

TS1: Communicate effectively.

TS2: Understand professional and ethical responsibilities.

TS3: Ability to make effective decisions.

Level of Award-Programme Learning Outcomes Mapping Matrix

Level of Award	Applied Bachelor	Advanced Diploma	Diploma
Programme Learning Outcome			
KU1	H	H	M
KU2	H	M	L
CS1	H	H	M

CS2	H	M	L
PS1	H	H	H
PS2	H	M	L
TS1	H	H	M
TS2	H	M	L
TS3	H	M	L

- H = High
- M = Medium
- L = Low

Applied Bachelor in Avionics Engineering

Intended Learning Outcomes

The aim is to graduate students who are educated to the highest international standards and practices in engineering fields and possess the necessary knowledge to become productive members of the global workforce or pursue further studies in a relevant field of study.

Goal 1 – KU	The graduate will have a profound and robust knowledge of the analysis of various engineering fundamentals, key principles of mechanical and electrical science, aspects of the design process and the function and operation of various industries.
Goal 2 – CS	The graduate will be able to solve & analyse engineering problems in relation to Avionics application and computer software design and programming in addition the design and operation of Electronic and electrical circuits and systems. Moreover, graduate will be able to Search and evaluate information sources to interpret constraints related to engineering context.
Goal 3 – PS	The graduate will have proven skills in conducting experiments, employing appropriate engineering tools to analyse engineering designs, work on various engineering system safely and construct and maintain engineering documentation.
Goal 4 – TS	The graduate will be able to communicate effectively and apply skills in both technical and non-technical environments, work in multidisciplinary teams, identify ethical issues and address them in a socially responsible manner.

Applied Bachelor in Avionics Engineering
Learning Outcomes

On successful completion of any of the programmes, the graduate will be able to:

Knowledge and Understanding

KU1: Apply comprehensive knowledge and techniques to understand various engineering principles related to mathematics, science and systems.

KU2: Understand the function and operational process of aviation and other engineering industries and design process.

Cognitive Skills

CS1: Solve & analyse engineering problems.

CS2: Research and evaluate different solution for engineering problems.

Practical Skills:

PS1: Use a range of relevant tools and technologies in engineering context.

PS2: Work effectively in team environments.

Transferable Skills

TS1: Communicate effectively.

TS2: Understand professional and ethical responsibilities.

TS3: Ability to make effective decisions.

Level of Award-Programme Learning Outcomes Mapping Matrix

Level of Award	Applied Bachelor	Advanced Diploma	Diploma
Programme Learning Outcome			
KU1	H	H	M
KU2	H	M	L
CS1	H	H	M

CS2	H	M	L
PS1	H	H	H
PS2	H	M	L
TS1	H	H	M
TS2	H	M	L
TS3	H	M	L

- H = High
- M = Medium
- L = Low

Applied Bachelor in Mechanical Engineering

Intended Learning Outcomes

The aim is to graduate students who are educated to the highest international standards and practices in engineering fields and possess the necessary knowledge to become productive members of the global workforce or pursue further studies in a relevant field of study.

Goal 1 – KU	The graduate will have a profound and robust knowledge of the analysis of various engineering fundamentals, key principles of mechanical and electrical science, aspects of the design process and the function and operation of various industries.
Goal 2 – CS	The graduate will be able to solve & analyse engineering problems specifically in relation to rotating equipment in terms of design, application, diagnostics and system solutions. Moreover, graduate will be able to Search and evaluate information sources to interpret constraints related to engineering context.
Goal 3 – PS	The graduate will have proven skills in conducting experiments, employing appropriate engineering tools to analyse engineering designs, work on various engineering system safely and construct and maintain engineering documentation.
Goal 4 – TS	The graduate will be able to communicate effectively and apply skills in both technical and non-technical environments, work in multidisciplinary teams, identify ethical issues and address them in a socially responsible manner.

Applied Bachelor in Mechanical Engineering

Learning Outcomes

On successful completion of any of the programmes, the graduate will be able to:

Knowledge and Understanding

KU1: Apply comprehensive knowledge and techniques to understand various engineering principles related to mathematics, science and systems.

KU2: Understand the function and operational process of aviation and other engineering industries and design process.

Cognitive Skills

CS1: Solve & analyse engineering problems.

CS2: Research and evaluate different solution for engineering problems.

Practical Skills:

PS1: Use a range of relevant tools and technologies in engineering context.

PS2: Work effectively in team environments.

Transferable Skills

TS1: Communicate effectively.

TS2: Understand professional and ethical responsibilities.

TS3: Ability to make effective decisions.

Level of Award-Programme Learning Outcomes Mapping Matrix

Level of Award	Applied Bachelor	Advanced Diploma	Diploma
Programme Learning Outcome			
KU1	H	H	M
KU2	H	M	L
CS1	H	H	M

CS2	H	M	L
PS1	H	H	H
PS2	H	M	L
TS1	H	H	M
TS2	H	M	L
TS3	H	M	L

- H = High
- M = Medium
- L = Low

Applied Bachelor in Aircraft Maintenance Engineering

Intended Learning Outcomes

The aim is to graduate students who are educated to the highest international standards and practices in engineering fields and possess the necessary knowledge to become productive members of the global workforce or pursue further studies in a relevant field of study.

Goal 1 – KU	The graduate will have a profound and robust knowledge of the analysis of various engineering and maintenance fundamentals, key principles of mechanical and electrical science, aspects of the design process and the function and operation of the aircraft maintenance Sector.
Goal 2 – CS	The graduate will be able to solve & analyse engineering problems related to aircraft maintenance. In addition, graduate will be able to troubleshoot various mechanical, structural and electrical issues within aircraft systems. Moreover, graduate will be able to Search and evaluate information sources to interpret constraints related to engineering context.
Goal 3 – PS	The graduate will have proven skills in conducting experiments, employing appropriate engineering tools to analyse engineering designs, work on various engineering system safely and construct and maintain engineering documentation.
Goal 4 – TS	The graduate will be able to communicate effectively and apply skills in both technical and non-technical environments, work in multidisciplinary teams, identify ethical issues and address them in a socially responsible manner.

Applied Bachelor in Aircraft Maintenance Engineering

Learning Outcomes

On successful completion of any of the programmes, the graduate will be able to:

Knowledge and Understanding

KU1: Apply comprehensive knowledge and techniques to understand various engineering principles related to mathematics, science and systems.

KU2: Understand the function and operational process of aviation and other engineering industries and design process.

Cognitive Skills

CS1: Solve & analyse engineering problems.

CS2: Research and evaluate different solution for engineering problems.

Practical Skills:

PS1: Use a range of relevant tools and technologies in engineering context.

PS2: Work effectively in team environments.

Transferable Skills

TS1: Communicate effectively.

TS2: Understand professional and ethical responsibilities.

TS3: Ability to make effective decisions.

Level of Award-Programme Learning Outcomes Mapping Matrix

Level of Award	Applied Bachelor	Advanced Diploma
Programme Learning Outcome		
KU1	H	H
KU2	H	M
CS1	H	H

CS2	H	M
PS1	H	H
PS2	H	M
TS1	H	H
TS2	H	M
TS3	H	M

- H = High
- M = Medium
- L = Low

Document History

Version No	Date	Update Information	Approved By:
2019-2020	July, 2020	▪ Added Section 2 University Profile ▪ Few modifications to the section 3.2 mission and 3.3 core values. ▪ Updated the latest organisational chart section 5 ▪ Added section 5.1 List of EAU Board of Governors ▪ Added section 5.3 EAU Contact Information and Location ▪ Updated section 9.2 Tuition Fees ▪ Updated section 9.3 Service Charges ▪ Updated the latest Refund Policy section 9.7 ▪ Updated section 15.2 Minimum and Maximum Periods of Enrolment ▪ Updated section 19.2 Course Descriptors ▪ Updated section 18 List of Full-time Faculty ▪ Updated Appendix A Curricula ▪ Updated Appendix B Programmes Learning Outcomes	Vice-Chancellor
2020-2021	July, 2021	▪ Added point 4 to the Mission section 3.2 ▪ Updated the List of EAU Board of Governors section 5.1 ▪ Updated the tuition fee for 2020-21 based on the website ▪ Updated the refund policy section 9.7 ▪ Removed section 5.2 University Administration ▪ Added EAU Staff Directory	Vice-Chancellor
2021-2022	Dec, 2021	▪ Update section 1 Academic Calendar 2021-2022 ▪ Update section 4 Licensure ▪ Update section 5 EAU Organisation Structure ▪ Update section 5.1 List of EAU Board of Governors ▪ Updated the refund policy section 9.7 ▪ Update section 18 List of Full-time Faculty ▪ Update section 19 Staff Directory	Vice-Chancellor
2021-2022	May, 2022	▪ Update section 19 Staff Directory ▪ Update section 18 List of Full-time faculty ▪ Update “School of Aviation Studies and Business Management” to “School of Aviation and Business Management” in the following sections: o Section 5 (Organisation Chart) o Section 2 (University Profile)	University Council
2022-2023	Oct, 2022	▪ Update to section 1 academic calendar 2022-2023 ▪ Update manual with new academic year 2022-2023 ▪ Penalty charges on bounced back cheques removed ▪ Updated section 19 Staff Directory ▪ Updated List of Full-time Faculty section 18 ▪ Update “School of Aviation and Business Management” to “School of Business Management” in the following sections: o Section 5 (Organisation Chart) o Section 2 (University Profile)	Vice-Chancellor

2022-2023	March, 2023	Update to Tuition Fee based on new programmes added (Bachelor of Science in Computer Science – Artificial Intelligence and Bachelor of Science in Computer Science – Data Science)	Vice-Chancellor
2022-2023	June, 2023	Section 9.2 updated as follows: For the academic year 2022-2023 onwards, the tuition fee per additional credit hour (above 15) is AED 2,450 for the BBA in Aviation Management programme and AED 2,560 for the BSc in Aeronautical Engineering, Applied Bachelor in Aerospace Engineering, Applied Bachelor in Avionics Engineering, Applied Bachelor in Mechanical Engineering programmes. For the Applied Bachelor in Aircraft Maintenance Engineering programme, the tuition fee per additional credit hour (above 15) is AED 2,025	Vice-Chancellor
2022-2023	July, 2023	Deleted Refund policy for Top-up programmes to match the PPM: section 9.7.3 For Top-Up Programmes: A student who withdraws after registration will receive a refund on tuition fees after deducting a fixed penalty fee and the tuition fee amount of each module covered. Update to section 5.1 List of EAU Board of Governors Update to section 18 List of Full-time Faculty Update to section 19 Staff Directory Update to policy 9.7.2: "Withdrawal after registration - Students must pay ~~AED 6,000 plus~~ tuition fees of each module covered"	Vice-Chancellor
2023-2024	Oct, 2023	Catalogue updated for 2023- 2034 based on new EAU Strategy 2023-2028 Section 17.6.2 Grading system updated Section 17.6.1 Course Assessment updated to 60%	Vice-Chancellor
2023-2024	April, 2024	Added GE Elective Course (GEN 2260) Introduction to Arabic Language for Non-Native Speakers Update the course code for the BSc in Computer Science as the below: • Induction to math code to MTH 1101 • Update Algebra and Calculus code to MTH 1202 • Update Optimization code to MTH3103 • Update Advanced Linear Algebra and its Applications to MTH3204	Vice-Chancellor
2023-2024	May, 2024	Update course description of BSc in Computer Science: - AI 4108, AI 209, DS 4106, DS 4107 - IT Course description in the general course section Added new Full Time Faculty under School of Math	Vice-Chancellor
2024- 2025	August, 2024	Catalogue updated for AY 2024-2025: 1. Academic Calendar 2024-2025 5.1 List of EAU Board of Governors 7.1 Admission Criteria	Vice-Chancellor

		Added: 4. Conditionally admitted students may not take more than 12 credits hours per semester of appropriate General Education coursework. 9.2 Tuition Fees • Table Update • Removal of AME specific: For the Applied Bachlor in AME programme, the tuition fee per credit hour (above 15) is AED 2,025. 9.3 Service Charges • EAU Official Transcript • Official Letter 18. List of Full-time Faculty 19. EAU Staff Directory	