الجامعة البريطانية في دبي

The British University in Dubai

Student Catalogue AY 2020-2021

"At the root of all creation is imagination because before you can achieve you must conceive"

HH Sheikh Mohammad Bin Rashed Al Maktoum
Ruler of Dubai and Prime Minister of UAE

Globally Aware – Nationally Accredited- Locally Focused

Chancellor's Message

It is my great pleasure to welcome our new cohort of undergraduate students to the British University in Dubai.

The University has been formed out of a genuine collaboration between Dubai and United Kingdom institutions to provide the best of British education in Dubai. Our UK associates, the Universities of Cardiff, Edinburgh, Manchester and Glasgow, have been chosen because of their research standing and high standards. I am pleased that they will continue working closely with BUiD to ensure that you are offered high quality programmes which benefit from that research.

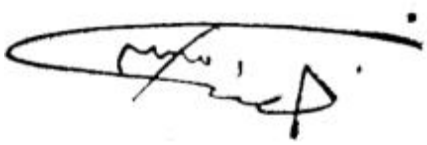
From small but ambitious beginnings, BUID has successfully established its portfolio of degree programs in a number of diverse areas. Today BUiD provides 6 bachelor's degrees, 15 masters' degree programmes and 6 doctorate programme. All academic programs offered at BUiD have been granted accreditation by the Ministry of Education, UAE and I am grateful to His Excellency Hussain Ibrahim Al Hammadi for the kind attention he and his Commissioners have given to the BUiD programmes.

The University is also grateful to its founders the Al Maktoum Foundation, Rolls-Royce, the National Bank of Dubai, the British Business Group, and the Dubai Development and Investment Authority; its contributors, The Emirates Group, DUCAB, Atkins, and Dubai Duty Free; the Dubai & UK Trade & Economic Committee and the members of the Council, Advisory Groups, and Senate; and its Vice Chancellor, Registrar and staff for the role they have played in running the University and providing a top quality higher education experience for our students.

The University was established to make a substantial and unique contribution to the United Arab Emirates and the Gulf region. Our faculty and staff are highly qualified, experienced, and dedicated professionals, whose passion and dedication is to focus on providing you with a positive learning experience. However, the University can only go so far by providing tuition, a vibrant environment in which to study and the considerable benefit of access to the resources of four top quality British Universities. By far the greatest contribution to the University will come from you, as a student, both through what you put into the University and through what you take from it and return to society through your employment or profession.

This document is designed to give you information to make your academic planning easier. If you need more information or advice, please take advantage of the experience and professional expertise of our faculty and administrative staff.

I wish you every success as you begin one of the most important journeys of your life.



Ahmed Bin Saeed Al Maktoum
Chairman of the Council

HOW TO CONTACT THE UNIVERSITY

BY MAIL	PO Box 345015, Dubai, United Arab Emirates
BY TELEPHONE	+971 4 279 1400
BY EMAIL	info@buid.ac.ae
IN PERSON	1st and 2nd Floor, Block 11 Dubai International Academic City (DIAC) Dubai

IT IS THE RESPONSIBILITY OF EACH STUDENT TO READ, UNDERSTAND AND ABIDE BY THE REGULATIONS AND PROCEDURES PRINTED IN THIS BOOKLET.

The catalogue is an official BUiD University document describing academic programmes, faculty listings, policies, procedures, regulations and requirements of the University. Every effort has been made to ensure the accuracy of the information presented in this catalogue. However, no responsibility is assumed for editorial, clerical or printing errors, or errors occasioned by mistakes. The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees (as per University policies), schedules, conditions of admission and credit requirements, and the revision or cancellation of particular modules or programmes.

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Section 1 Introduction

The British University in Dubai (BUiD) is the first research-based, postgraduate university in the Middle East which has recently planned to move into undergraduate provision. BUiD was established under Dubai Government Decree No 5 of 2003 dated 19th May 2003 on the signature of His Highness Sheikh Maktoum bin Rashid al Maktoum, Ruler of Dubai. Article 3 established the formal authority of the University to award degrees upon ratification by the University Senate.

Decree No 7 of 2011 dated 7th March 2011 on the signature of His Highness Sheikh Mohammed bin Rashid al Maktoum, Ruler of Dubai renews the formal authority of the University to award degrees upon ratification by the University Senate.

1.1 University Mission

The Mission of the British University in Dubai (BUiD) is to provide world class scholarship, education and research that make a distinctive British contribution to supporting the aspirations of the Dubai Government to become a hub for education and research in the region.

1.2 University Vision

The University's vision is to be recognised and supported as Dubai's premier resource and focus for the reflective pursuit, inclusive accessibility, effective transfer and liberal application of scientific, academic and professional knowledge.

1.3 University Strategy

The strategy of a modern university operating in a world city within an increasingly global economy needs to have three dimensions:

a) An offer of advanced education which meets the demands for higher skills and learning of those who are, or aspire to be professional and intellectual leaders in Dubai, UAE & the wider region

b) The capture, development and extension of knowledge about the complex realities of human society in the 21st Century

c) Promotion of reflection, debate and dissemination of learning and understanding to inform policy, practice and activity of benefit for personal, community and social development.

Such a strategy requires the following fundamental attributes in order to flourish:

- research-based teaching;
- evidence-based analysis;
- student-centred learning;
- knowledge-oriented economy;
- morally responsible society.

Successful higher education assumes a fundamental core and foundation of skills, knowledge and competency. Over the years and through due review processes, the initial (2003-11) post-graduate focus and experiences of BUiD have prompted some questioning of these assumptions, with a consequent strategic shift to embrace relevant undergraduate provision as well, subject as always to the needs of the individual in modern society, and the support of the political economy.

1.4 University Goals

The goals of the University are to:

- Make a distinctive British contribution to the higher educational system in the United Arab Emirates (UAE) through the creation of a high quality research-led university

- Develop leading-edge research capabilities in key disciplines

- Offer the highest international competitive level of research-informed education in key modern disciplines

- Interact with regional industry and play a leading role in stimulating a knowledge-based economy in Dubai and the Emirates

- Provide opportunities for study and research for the purpose of gaining degrees in arts and sciences

- Apply the systems of study and research that are used in distinguished British universities with the aim of enhancing the standard of university education in the U.A.E.

- Qualify and educate nationals who are scientifically and practically trained in all fields of knowledge, through advanced educational and training programmes

- Serve the various sectors of society, especially the commercial and industrial sectors, by providing consultation, technical services and research in the various fields of science and technology and the other disciplines, which will be offered by BUiD

- Consolidate educational, scientific and cultural links with distinguished British universities and institutions, and with other internationally distinguished universities.

1.5 Licensure and Accreditation

BUiD located in the Emirate of Dubai is officially licensed from 21/01/2015 to 31/12/2019 by the Ministry of Higher Education and Scientific Research of the United Arab Emirates to award degrees/qualifications in higher education.

The University also holds the license issued by the Knowledge and Human Development Authority Dubai.

1.6 Strategic Operations and Plans

The University progresses its mission, vision, strategy and operations through the focus of its three academic faculties. The Strategic Plans for each faculty are available with Office of Quality and Institutional Effectiveness. A 5-year strategic plan was developed in 2013 and it covers the period 2013-2018.

1.7 Why Choose British University Dubai?

- Licensed and accredited federally and locally
- Making a not–for-profit contribution to the knowledge economy
- Very competitive pricing being a not-for-profit organization
- Research-based teaching founded upon evidence-based research

2.1 Board of Trustees/Council

HH Sheikh Ahmed Bin Saeed Al Maktoum
President - Dubai Department of Civil Aviation
Chairman -Dubai Airports
Chairman & CEO -Emirates
Chancellor, BUiD

Prof. Abdullah M Alshamsi
Vice-Chancellor
The British University in Dubai

HE Mirza Al Savegh
Director, Office of HH Sheikh Hamdan bin Rashid Al Maktoum

Hind Al Mualla
Chief of Creativity, Happiness and Innovation
KHDA

HE Ahmad Butti Al Muhairbi
Secretary-General
Dubai Supreme Council of Energy

Khalid Al Malik
Managing Director,
Dubai Holding

John Martin St.Valery
Chairman and CEO
British Business Group Dubai and the Northern Emirates

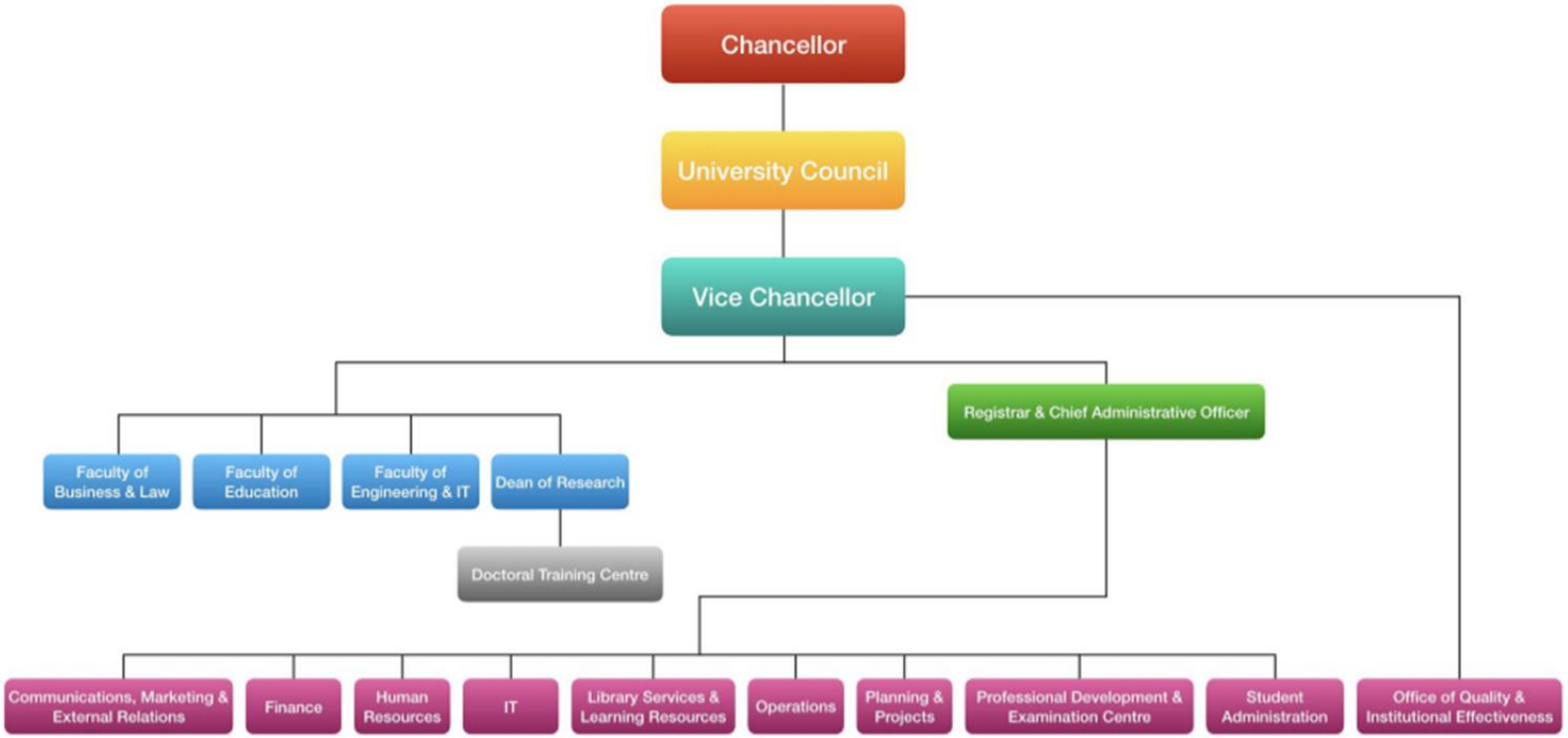
Steve Thompson Chief Operating Officer, Tanfeeth (an Emirates NBD Company)

David Hynes Vice President, Customers, Rolls-Royce International, UAE

Gavin Anderson
Country Director
British Council

Hugh Martin
Registrar and Chief Administrative Officer
The British University in Dubai

Section 3 Organisation Chart and Faculty Structure



Section 4 ACADEMIC STAFF

Name	Academic Position	Credentials
Professor Bassam Abu Hijleh	Dean- Faculty of Engineering & IT Head of Programme (MSc SDBE/PhD ASBE)	(1985) Bachelor of Science in Mechanical Engineering, Ohio State University (USA) (1987) Master of Science in Mechanical Engineering, Ohio Sate University (USA) (1990) Doctor of Philosophy (Ph. D) in Mechanical Engineering, Ohio State University (USA)
Dr. Hanan M Taleb		(2004) BA Interior Design, Dar Al Hekma College (Saudi Arabia) (2006) MA Interior Design, Bournemouth University (UK) (2007) MArch, University of Sheffield (UK) (2011) PhD Architecture, University of Sheffield (UK)
Dr Kirk Shanks		(1996) BEng (Hons) Building Services Engineering + Diploma in Industrial Studies, University of Ulster (UK) (1997) MSc in Architecture: Environmental Design of Buildings, The Welsh School of Architecture, Cardiff University (UK) (2007) PhD in Energy Studies, University of Ulster (UK) (2015) PG Certificate in Academic Practice Heriot-Watt University + Fellow of the Higher Education Academy (UK)
Prof. Alaa Ameer	Head of Programme (MSc Eng.Mgt/BSE/BSc Electro-Mechanical)	(1979) Bachelor of Science in Mechanical Engineering, University of Technology (Iraq) (1981) Higher Diploma in Applied Mechanics, University of Technology (Iraq) (1983) Master of Science in Tribology, University of Technology (Iraq) (2001) Doctor of Philosophy in System Modelling, University of Bradford (UK)
Prof. Khaled Shalaan	Head of Programme – Informatics (BSc, MSc IT/ITM, PhD CS)	(1982) Bachelor of Commerce (B.Comm), University of Cairo (Egypt) (1985) Post-graduate Diploma (PGDip) in Computer Science & Information Science, University of Cairo (Egypt) (1989) Master of Science (MSc) in Computer Science, University of Cairo (Egypt) (1995) PhD Computer Science, Institute of Statistical Studies & Research, Cairo University (Egypt)
Prof. Sherief Abdallah		(1998) Bachelor of Engineering in Computer Engineering, Cairo University (Egypt)

		(2001) Master of Science in Computer Engineering, Cairo University (Egypt) (2006) Master of Science & Doctor of Philosophy in Computer Science, University of Massachusetts (USA)
Prof Piyush Maheshwari		(1982) B.Eng. in Electronics & Communication Engineering, Indian Institute of Technology (India) (1984) M.Eng. in Computer Science & Technology, Indian Institute of Technology (India) (1990) Ph.D. in Computer Science, The University of Manchester (UK) (1994) Graduate Certificate in Higher Education, Griffith University (Australia)
Dr Cornelius Ncube		(1994) Bachelor of Engineering in Computer Science, Brunel University (UK) (1995) Master of Science in Software Engineering, City University London (UK) (2000) Doctor of Philosophy in Computer Science, City University London (UK)
Prof Abid Abu-tair		(1984) B.Eng. Civil Engineering, Queen Mary College (UK) (1985) M.Sc. Civil Engineering, Imperial College; (UK) (1992) PhD Civil Engineering; Queen Mary College (UK)
Dr Gul Ahmed		(2012) PhD in Civil Engineering, Imperial College (UK) (2002) M.Engg. in Structural Engineering, NED University (Pakistan) (1999) B.E. in Civil Engineering, NED University (Pakistan)
Prof. Eman Gaad	Dean Faculty of Education	1987) Bachelors of Science (BSc) in Biology, Alexandria University (Egypt); (l999) Doctor of Philosophy (PhD) in Education, The University of East Anglia (UK).
Prof. Sufian Forawi		(1983) Bachelor of Science in Biology and Education, University of Alexandria, Egypt (1984) Higher Diploma in Education, Omdurman Islamic University, Sudan (1987) Master's of Education, Curriculum and Instruction, Omdurman Islamic University, Sudan (1996) Educational Doctorate in Science Education, University of Massachusetts Lowell, USA
Dr. Solomon Arulraj David	Head of Programme, MEd	(1999) B B.A., in English Literature; St. John's College (India) (2000) B.Ed., in Education; St. Xavier's College of Education; (India)

		(2002) M.A in English Literature; ManonmaniumSundaranar University (India) (2004) MEd, Katholieke Universiteit Leuven, (Belgium) (2011) PhD in Education, Katholieke Universiteit Leuven, (Belgium)
Dr Emad Ahmed Abu Ayyash		(1996) B.A. Degree in English Literature and Linguistics from Yarmouk University (Jordan) (2008) Master Degree in English/ Translation, Yarmouk University (Jordan) (2009) TEFL Certificate, University of the Fraser Valley (Canada) (2016) Ph.D in Education – TESOL, The British University in Dubai (UAE)
Dr Adbulai Abukari		(1999) BEd (Hons) Social Studies Education & Art Education, University of Education/University of Cape Coast (Ghana) (2003) MPhil in Comparative and International Education, University of Oslo (Norway) (2007) PhD in Comparative and International Education, Middlesex University, (UK)
Dr Christopher Hill		(2000) Bachelor of Arts (Hons) in Classical Civilisation, University of Nottingham, UK (2001) Master of Arts in International Relations, University of Nottingham, UK (2005) Doctor of Philosophy (Ph. D) in Political Science, University of Nottingham, UK (2010) Post Graduate Certificate in Higher Education, University of Nottingham Malaysia Campus, Malaysia
Dr Tendai Charles	Director, Centre for Research for Digital Innovation	(2005) BEng in Computing City University, UK (2010) MA Applied Linguistics Newcastle University, UK (2013) CELTA International House, UK (2018) PhD in Education University of York, UK
Prof Aymen Masadeh	Dean, Faculty of Business and Law	(1996) LLB, Jordan University, Jordan (1997) LLM, Aberdeen University, UK (2001) PhD (Contract Law), Bristol University, UK
Dr Abba Kolo	Head of Programme, PhD Business Law, BSc Law and CLDR	(1984) LL.B, Ahmadu Bello University, Nigeria (1986) Bachelor of Law, Nigerian Law School. Nigeria (1988) LLM, University of Warwick, UK

Dr Omar Hisham Alhyari		(2000) Bachelor's Degree in Law, Amman University (Jordan) (2003) Master's Degree in Private Law, Amman University (Jordan (2008) Doctorate in Law, University of the West of England (UK)
Dr Stephen Wilkins	Head of Programme, PhD BM/DBA/MBA	(1988) Bachelor of Arts in Business Studies, Plymouth Polytechnic, UK (1995) Master of Science in Management Science, University of Southampton, UK (1995) Postgraduate Certificate in Education (PGCE), University of Greenwich, UK (2010) Master of Research (ResM) in Management, University of Bath, UK (2013) Doctor of Philosophy (PhD) in Management, University of Bath, UK
Dr Sulafa Badi		(1996) BSc Architecture, University of Khartoum (Sudan) (2000) MSc Construction Economics and Management, Bartlett School of Graduate Studies, University College London (UK) (2012) PhD Project Management, Bartlett School of Construction and Project Management (UK)
Prof Edward Godfrey Ochieng	Head of Programme (MSc PM, PhD PM)	(2010) Postgraduate Certificate in Higher Education learning and Teaching, Robert Gordon University (UK) (2008) PhD Project Management, Loughborough University (UK) (2000) MSc Project Management, Leeds Beckett University (UK) (1999) BSc Technology and Management, University of Bradford (UK)
Dr Khalid Al Maari	Dean of Research	(1984) B.Sc. Civil Engineering, University of Arizona (USA) (2000) M.Sc. Engineering Management; The Catholic University of America (USA) (2015) PhD Project Management, the British University in Dubai (UAE)
Dr Maria Papadaki	Director, BUiD Innovation and Risk Management Centre	(2004) BSc Business Economics, Salford University (UK) (2005) MSc Management of Projects; The University of Manchester (UK) (2013) PhD in Risk Management; The University of Manchester (UK)
Dr Husam-Aldin Al-Malkawi	Head of Programme (MSc Finance, BSc Finance and BSc Business Management)	(1990) B.A. in Economics and Planning, University of Aleppo, Syria (1996) Master of Commerce in Accounting and Financial Management, Maharaja Sayajirao University of Baroda, India

		(2005) Ph.D. in Finance, School of Economics and Finance, University of Western Sydney, Australia
Dr Abdelmounaim Lahrech		(1998) Mathematics (Statistics), University Mohammed V (Morocco) (2003) Mathematics (Statistics), Southern Illinois University (USA) (2007) Economics, Southern Illinois University (USA)

Section 5 ADMINISTRATION

Executive Office

***Professor Abdullah Al Shamsi**, Vice- Chancellor*

Hugh Martin,
Registrar and Chief Administrative Officer

Salam Khoury,
Executive Administrator/PA to VC & Registrar

Office of Quality and Institutional Effectiveness

Maria Pinto,
Head of Institutional Effectiveness

Dr Ghassan Dabbour,
Head of Planning and Projects

Student Administration

***Dr. Amer Alaya,** Head of Student Administration*

Christine Salvador,
Research Programmes Officer

Godwin Francis,
Senior Faculty Administrator

***Ahmed Ali,** Senior Student Administrator*

Abdullah El Nokiti,
Faculty Administrator

Adelya Islamova,
Admissions Officer

***Nadine Markiz,** Student Relations Coordinator*

Muhammad Jammal,
Admissions Officer

Financial Affairs

Mohammed Wajahatuddin Ahmed,
Head of Finance

***Haskar K,** Finance Administrator*

Lordlyn Joy Tabalus,
Finance Administrator

Marketing, Communication & External Relations

Joe Hazzam,
Head of Marketing, Communication & External Relations

Samar Alkhatib,
Communications Manager

Manal Al Dhuhoori,
Digital Media Officer

***Sally Khalil,** External* Relations Manager

Library

***Marisol Leonen,** Head of Library Services & Learning Resources*

Simia Kumar,
Assistant Librarian

Grace Abergos Rico,
Library Services Coordinator

***Mohammad Mesfer Rashed,** Library Support*

Information Technology

Khaleelullah Ghourie,
Head of IT

***Joma Cabales,** IT Officer*

***Arun KK,** IT Support Specialist*

Shobu Skaria,
IT Support Specialist

***Yasir Iqbal,** IT Assistant*

Human Resources

***Sheila Enriquez,** Head of Human Resources*

***Jouhar Ali,** Human Resources Administrator*

***Mary D'Cunha,** Front Office Executive*

Operations

Hassan Modiraprambil,
Head of Operations

Professional Development & Examinations Centre

Samar Shaker,
Professional Training/Development Manager

***Jerry Joy**, Training & Examinations Administrator*

Doctoral Training Centre

Rawy Abdelrahman Thabet,
Academic Associate

Danielle Wilson – Gulston,
Teaching & Training Associate

Section 6 Academic Calendar 2020-2021

	2020/2021	The British University in Dubai - All Programmes		Term
Saturday	19-Sep-20	Induction/Commencement of Classes UG Programmes (Sunday 20 September 2020)	Induction/Commencement of Classes PG Programmes	Term 1
Saturday	26-Sep-20			
Saturday	03-Oct-20	End of Add/Drop Period	End of Add/Drop Period	
Saturday	10-Oct-20			
Saturday	17-Oct-20			
Saturday	24-Oct-20	ASSLC (Twice a year)	ASSLC (Twice a year)	
Saturday	31-Oct-20	Board of Studies (Twice a year)	Board of Studies (Twice a year)	
Saturday	07-Nov-20	Academic Board	Academic Board	
Saturday	14-Nov-20	Senate Meeting	Senate Meeting	
Saturday	21-Nov-20			
Saturday	28-Nov-20	First Tem Exams	First Tem Exams	
Saturday	05-Dec-20	External Examiners Review		
Saturday	12-Dec-20	Board of Examiners		
Saturday	19-Dec-20	First Break (10 working days students & academics)		First Break
Saturday	26-Dec-20			
Saturday	02-Jan-21	induction/Commencement of Classes UG Programmes(Sunday 3 January 2021)	Induction/Commencement of Classes PG Programmes	Term 2
Saturday	09-Jan-21			
Saturday	16-Jan-21	End of Add/Drop Period	End of Add/Drop Period	
Saturday	23-Jan-21			
Saturday	30-Jan-21			
Saturday	06-Feb-21	ASSLC (Twice a year)	ASSLC (Twice a year)	
Saturday	13-Feb-21	Board of Studies (Twice a year)	Board of Studies (Twice a year)	
Saturday	20-Feb-21	Academic Board	Academic Board	
Saturday	27-Feb-21	Senate Meeting	Senate Meeting	
Saturday	06-Mar-21			
Saturday	13-Mar-21	Second Tem Exams	Second Term Exams	
Saturday	20-Mar-21	External Examiners Review		
Saturday	27-Mar-21	Board of Examiners		
Saturday	03-Apr-21	Second Break (5 working days student & academic)		
Saturday	10-Apr-21	Commencement of Classes UG Programmes	Commencement of Classes PG Programmes (Start of Ramadan 12 April - TBC)	Term 3

		(Start of Ramadan 12 April - TBC)		
Saturday	**17-Apr-21**			
Saturday	**24-Apr-21**	**End of Add/Drop Period**	**End of Add/Drop Period**	
Saturday	**01-May-21**			
Saturday	**08-May-21**	**Eid Break (Tentative 11 - 15 May 2021)**		
Saturday	**15-May-21**			
Saturday	**22-May-21**	**ASSLC (Twice a year)**	**ASSLC (Twice a year)**	
Saturday	**29-May-21**	**Board of Studies (Twice a year)**	**Board of Studies (Twice a year)**	
Saturday	**05-Jun-21**	**Academic Board**	**Academic Board**	
Saturday	**12-Jun-21**	**Senate Meeting**	**Senate Meeting**	
Saturday	**19-Jun-21**			
Saturday	**26-Jun-21**	**Third Tem Exams**	**Third Term Exams**	
Saturday	**03-Jul-21**	**External Examiners Review**		
Saturday	**10-Jul-21**	**Board of Examiners**		
Saturday	**17-Jul-21**	**Summer Break (34 working days student & academic including Eid Aladha)**		

* Islamic holidays are determined after sighting the moon. The university will officially announce any closure on a religious and/or public holiday to students and staff.

Note: Senate Held twice a year in November and May
Council Four times a year: October, Dec/Jan, March/April, June/July

Section 7 Undergraduate Academic Degrees

Faculty	Programmes
Engineering & IT	**Bachelor** of Science in Computer Science Concentrations: Computer Science and Artificial Intelligence Computer Science and Software Engineering
	Bachelor of Science Industrial Engineering
	Bachelor of Science in Architecure
	Bachelor of Science Electro-Mechanical Engineering
Business and Law	**Bachelor** of Science in Business Management
	Bachelor of Science in Accounting and Finance

Section 8 Admissions Policies & Standards

All programmes are delivered in BUiD at Block l1, Dubai International Academic City campus, Dubai, UAE. BUiD confers the following degrees:

8.1 General Requirements

BUiD operates a competitive admissions policy, which is rigorous in order to maintain the high standards expected of a research-led institution. The admission of an individual applicant is at the discretion of the University. In exercising this discretion, the University will be guided by the following considerations:

1. The University will operate an admissions system which complies with the UAE Standards and which fulfils any specific requirements, which might have arisen through individual programme accreditation.
2 There shall be a reasonable expectation that anyone admitted to a programme of study is able to fulfil the learning objectives of the programme and to achieve the standard required for the award.
3 In considering each individual applicant for admission to a programme of study, evidence should be sought of personal, professional and educational experiences that provide indications of ability to meet the demands of the programme.
4 There shall be no discrimination against any applicant in relation to age, colour, creed, disability, ethnic origin, gender, marital status, nationality, race, sexual orientation or social class. The procedures should ensure equality of opportunity for all applicants, not only in the interest of social justice but to harness the development of the scarce supply of talent.
5 The University must satisfy itself that the applicant has sufficient command of the English language to complete satisfactorily the programme of study.
6 Applicants may not be admitted or enrolled in more than one programme concurrently.
7 Enrolled graduate students who wish to change their programme must meet the admission requirements of the new programme.
8 Each applicant has to submit an official transcript of any degrees earned and of any other credit earned from a higher education institution.
9 Applicants must satisfy both the general university requirements for admission and the Program-specific admission criteria. Individual programmes may raise the minimum requirements stated, or they may request additional requirements such as work experience, specific skills, written essay and/or an interview, among other things depending on the nature of the programme.

Admission to the University[1]

All applicants must meet established, clearly communicated minimum requirements to be considered for admission:

- British national curriculum (IGCSE/GCSE) or equivalent with at least seven (7) subjects in the 'O' level,AS level or A level or any combination of these. The seven (7) subjects should cover four (4) areas out of Math, Languages, Sciences, Humanities & Social Sciences and Art & Design. In all cases the grade must not be less than "C" in "O" level subjects, not less than "E" in "A" level subjects or equivalent if studied in any other country.

British Curriculum	GCE/GCSE/IGCSE (at least 7 subjects) (Students must complete a minimum 11 years of schooling and a School Leaving Certificate must be provided.)	C' in O levels, 'E' in AS/A levels
UAE	MOE – General Track MOE – Advanced Track	70% 60%
India	Higher Secondary (CBSE, ICSE)/Pre-University	60%
Pakistan	Higher Secondary	60%
USA	High School Diploma	B' Good
Lebanon	School	14 on 20 point scale
Iran	Pre-University	14 on 20 point scale

1 Where the applicant is not normally resident in the UAE, admission to the University is dependent upon obtaining a DIAC Student Residence Visa.

- English Language proficiency equivalent to TOEFL score of PBT 500/iBT 61 or IELTS 5.0, or an equivalent using a standardized test approved by the Ministry of Higher Education and Scientific Research.

For Architecture and Engineering Programmes

BSc Architecture	**UAE Curriculum and ADEC** **General Track:** Candidates from the General track must also have a score of 90% or above in Math and Science. Also they must pass a preparatory Module in physics. **Advanced Track:** Candidates from the advanced track must also have a score of 70% or above in Math and Science. For ADEC Track advanced Mathematics (Level III) and advanced Physics (Level III) are required
BSc in Industrial Engineering	
BSc in Electro Mechanical Engineering	

8.2 Admissions Procedures

To apply to a progarmme at BUiD, applicants must:

- meet all program specific requirements
- complete the Graduate Online Application (available at http://www.buid.ac.ae/apply-sept-2017)
- An original or certified copy of your secondary school records
- A Statement or Certificate of Completion of secondary school
- Proof of your English language proficiency

Provisional Offer

The provisional offer from the University will state that the applicant has been offered a place on a programme SUBJECT to meeting a list of requirements detailed in the letter. This may include provision of authorised documents, including attested copy of degree certificate and, for non-UAE degree, a letter of equivalency from the Ministry of Education, further details, reference letters etc. This provisional offer is intended to help overseas applicants commence the process of obtaining their DIAC Student Residence Visa. Once all of the requirements listed in the Provisional Offer have been satisfied, the University will issue a confirmed offer.

Confirmed Offer[2]

The Confirmed Offer letter will state that the student has met the admissions requirements and provided appropriate evidence to support their application. This letter will also provide further details about pre-registration and registration procedures.

Pre-Registration

The Student Services department will ensure that the applicant is kept informed of any issues, which require attention, and of planned key dates and deadlines. This includes

- Student Induction Programme date
- Diagnostic test dates
- Fee Requirements
- Probationary requirements.

Final Admission

The applicant pays the initial fee and advises the accounts department of their selected fee payment option

The applicant submits all required documents including original degree certificates, transcript, EmSAT/ IELTS/TOEFL Certificate (or Equivalent), Certificate of Equivalence (if applicable) two passport size photographs and reference letters. The original certificates, transcripts, Certificate of Equivalence and EmSAT/IELTS/TOEFL certificates are returned to the student and a copy of the same is retained by the

[2] *A confirmed offer is subject to the overseas applicant receiving the appropriate DIAC Student Residence Visa.*

University[3].

8.3 Attestation of Documents

All applicants for admission are required to obtain equivalency of their secondary school leaving qualifications from the UAE Ministry of Education. The attestation process is dependent upon whether you completed your secondary schooling within the UAE or outside the UAE.

Applicants who completed secondary schooling within the UAE

Applicants must get their certificates attested by the Ministry of Education in the UAE for secondary schooling studies undertaken in the UAE. In these circumstances, you will be provisionally admitted to the University and permitted to commence the first term of study, subject to you obtaining the required attestation.

Applicants who completed secondary schooling outside the UAE

In these circumstances, you will be provisionally admitted to the University and permitted to commence the first term of study. However, you must have your secondary school records and Certificates of Completion certified by:

1. The issuing Board of Secondary Education or a recognised authority for secondary education.
2. The Ministry of Foreign Affairs in the host country
3. The UAE Embassy in that host country

Falsified and Fraudulent Admission Documents

BUiD reserves the right to take disciplinary action up to and including the revocation of admission or permanent dismissal if the University determines that information has been misrepresented or falsified documents have been submitted in support of an application for admission

8.4 Student Induction

There will be an induction programme which is mandatory for all students, normally held one week before the classes begin. During this first week student will be welcomed and provided with the following:

- An overview of BUiD and of the support services available.
- Introduction to the academic staff who will be teaching and supervising them, and given an opportunity to discuss a Study Plan
- An opportunity to ask specific questions about the programme or any other matters of academic concern
- Information about BUiD's administrative structures and its teaching and research activities Introduction to academic support services, in particular library and computing services, including arrangements for access and training in the use of these facilities
- Opportunity to explore possibilities for further training and skills development
- Information and access to pastoral support within the Faculty
- Information concerning the expectations and entitlements of students
- Details about Programme structure, expectations and requirements Diagnostic assessments for study and other foundation skills and knowledge

8.5 Student Registration

8.5.1 New Students

The University invites its successful applicants to complete registration formalities over a week, usually about two weeks before the commencement of the new term. Students are required to submit the following documents:

- Original attested degree certificate and transcript
- Original IELTS/TOEFL certificate
- Two passport-sized photographs
- Passport copy UAE residence visa for non-UAE nationals

[3] *An applicant with a provisional offer can be admitted only if he has met the minimum English language requirement. For submitting original attested documents or Equivalence of certificate students will be given time till the end of first term*

- Copy of Emirates ID card

Applicants are required to

- Submit a completed Programme Registration form
- Pay an initial fee of AED 10,000 during registration. The remaining tuition fee may be paid as per term payment schedule.

On payment of the initial fee, they will be registered on the University system and issued an Identity Card which may also be used to borrow books from the library. These cards are non-transferable and must be returned if the student withdraws from classes, suspends registration, is dismissed, or graduates from the programme.

8.5.2 Returning Students

All returning students are required to complete the Programme Registration form and get it signed by their personal tutor. Any change in contact details, emergency contact details etc. are to be indicated on the registration form. Registration will be complete on getting clearance from the Accounts Department. Students are required to complete the 'Suspend Study' form if they do not intend to register for a term.

8.6 Visa

In order to apply for a student visa, the student must be enrolled in a full time program of study. The Visa application process can only commence once a student has submitted all relevant forms, paid appropriate fees and accepted an unconditional offer of admission to commence studies in their nominated program. Student visa applications are subject to approval by the UAE's Immigration Department. Students who have a visa application rejected will not be able to undertake their program of study with BUiD.

A student visa is normally valid for a period of 1 year. Students will be required to renew every year of their programme. It is the responsibility of the student to notify the Student Administration Department and to submit all documents for renewal at least 60 days prior to the date of expiry of visa.

Visa Compliance and Cancellation

- It is the student's responsibility to ensure that the student visa is cancelled before leaving the country/after finishing the programme and also ensure that they duly pay the cancellation charges

- In case a student does not cancel his/her student visa as per the rules and regulations stipulated by the University, he/she will have to pay the total fine charged by TECOM. Furthermore, the University will report such students to the immigration authorities as absconded.

- A student visa may be cancelled under the following provisions:

- Where the student wishes to terminate his/her studies prior to the expiry of the visa. The visa will be cancelled immediately and the student will be responsible for making arrangements to leave the country or seek other sponsorship

- All graduating student visas will be cancelled one month after the last day of examinations in the final session of study or one week before the visa expiry date.

- When a student does not maintain a full-time study status in a session, other than those who have been granted a leave of absence. ¬ When a student has been convicted of a criminal offence.

- When a student does not comply with the rules and regulations as advised by the University

8.7 Health Insurance

All visa sponsored students must have valid medical insurance which is either private or through BUiD's preferred provider. Students will be required to renew either their private or BUiD health insurance prior to the expiry date of their visa and/or the process for the extension of the visa.

Section 9 Financial Support & Fees

The fees set by BUiD for its programmes are comparable to those for other internationally recognised programmes of study within leading higher education institutions.

All students are required to make adequate financial provision for the proposed duration of their programme of study, including:

- Arrangements for the payment of tuition and/or research fees to BUiD
- Adequate provision for other expenses relating to his/her programme of study such as:
- Research costs
- The purchasing of textbooks or equipment and suchlike
- Projected living expenses are covered for the projected duration of the programme.
- It is the responsibility of the student to apply for and obtain any funds necessary for the pursuit of his/her programme of study, such as a scholarship or other financial award.

9.1 Total Programme Fees for the Academic Year 2020-2021

Scholarships up to 50% – for more details visit scholarships

Bachelor Programme (4 years)	Tuition fees per year
BSc. Business Management	AED 56,250
BSc. Accounting and Finance	AED 56,250
BSc. Electro-Mechanical Engineering	AED 62,500
BSc. Architecture	AED 62,500
BSc. Computer Science Artificial Intelligence	AED 56,250
BSc. Computer Science Software Engineering	AED 56,250

Note: the above fees are subject to 5% VAT

9.2 Tuition Fee Terms and Conditions

a. An Initial payment of AED 5000 is paid for all programmes at the time of reserving a place on a programme**. *Once paid the initial payment is non-refundable in all circumstances whether a student commences the programme or not*.**
b. The first payment is to be made during registration and the term fees are to be made in the first week of each term

c. After the Initial payment, the entire remaining tuition fees have to be paid. Students will not be registered until a commitment for the entire programme payments is made.
    - Post-dated cheque – the preferred mode of payment is by post-dated cheques, dependent upon the instalment plan chosen. The date of the cheques will be the first of each month.
    - Bank standing order – where students do not have access to a cheque book, then a bank standing order has to be set up and a copy given the university.
    - Cash – exceptionally students may pay by cash. However, the quarterly or monthly instalment plans are not available to cash payers, who have to pay in full at the beginning of each term.

d. Any cheques or standing order payments returned unpaid will incur an AED 100 administration charge. The students must arrange alternative payment within 2 weeks of the returned payment. If there is more than 1 month of arrears, then access to blackboard, library and IT facilities may be denied.

e. Cancellation of a post-dated cheque for tuition fees will result in disciplinary and legal action being taken by BUiD.

f. Students with outstanding debt to BUiD may not graduate.

Sponsorship
Students may ask the University to invoice external sponsors, such as employers or organisations directly. Students must provide, at or before the time of enrolment, an original letter (on official letterhead) from the sponsor confirming the amount and/or proportion of the Fees and charges being guaranteed by the sponsor. In the event of a student's sponsoring authority (if any) failing to make payment the student becomes personally liable for the payment of all of their fees.

Refunds
The Initial payment is non-refundable in all circumstances. If a student has attended more than one-third of the classes of a module, then payment for the entire module has to be made. For attendance of one-third or less than 75% of the tuition fee for that module is refundable. The Request to Withdraw Form needs to be submitted. Any claims for refunds must be made within one month of the commencement of tuition.
Students who have their Student Visa withdrawn may not receive a refund of fees.

Retake Module
A student who has to retake the whole module will be charges 50% of the full cost of the tuition for that module will be due, irrespective of whether the student has a scholarship or not.

Late or Non-payment of Fees
Late payment of fees will result in the withholding and non-ratification of exam results and coursework marks. The University will not supply any transcripts or any other documentation until the fees are paid in full.

Non-payment of fees will result in the student not being registered and being barred from attending classes. In such cases the blackboard access will be denied and the student will not be allowed to borrow books from the library.

Official letter
Students shall pay a fee of AED50 for every official letter requested from BUiD.

9.3 Other Fees

Readmission Fee	AED 1,000
Penalty for late-withdrawal from a module	AED 4,500
Re-taking a module with an RM award	50% of module fee
Replacing a Re-take module with another module	100% of module fee
Re-taking Dissertation	AED 10,000
Re-taking Project	AED 5,000
First Dissertation Extension	AED 1,500
Second Dissertation Extension	AED 4,500
Application for Credit Transfer	AED 1,000
Dissertation Re-registration after Suspension	AED 1,500

Section 10 Academic Policies, Procedures and Regulations

All policies and procedures relevant to the operations of the University are documented in the IE Policies and Procedures Manual. This Manual is maintained by the Office of Quality and Institutional Effectiveness. Academic relevant policies and procedures will be made available to students on the on Blackboard (virtual learning environment).

10.1 Adding or Dropping Modules

Student may add or drop module within the first 30% of scheduled classes. Module(s) dropped during the 'add and drop' period is not recorded on a student's transcript.

10.2 Credit Transfers for Under Graduate Programmes

Transfer of credits may be considered for Bachelors programmes on the basis of work and studies successfully completed by applicants at a recognized post-secondary institution/college/university:

a. Recognised prior learning is assessed on the basis of equivalent learning outcomes. Assessments will be evidence-based and the faculty will determine a variety of methods and instruments to establish equivalence

b. BUiD does not award credit for experiential learning.

c. BUiD does consider credit transfer arrangements towards its graduate programmes from other higher education institutions subject to the following conditions.

- The applicant meets BUiD's normal entry requirements.
- The relevant Faculty is able to determine that the coursework was taken at undergraduate level and is at least equivalent to the credit rating available for one module of the programme for which the credit transfer is being considered.
- That the student attained a minimum GPA of 2.0 on a 4.0 scale or equivalent.
- The institution at which the programme was taken is recognised by the MOHESR or licensed or officially recognised by the Department/Ministry of Education in the home country (and so, attestable by MOHESR)
- The Faculty only allows exemptions from modules with content equivalent to that qualification providing the transferable points.
- Credit points can only be transferred where the work done for the previous qualification would allow the student to successfully perform the assessment exercise for the exempted module.
- Credits which have already formed part of an award are not acceptable for transfer.
- Transferred credit can provide no more than 50% of the credit points for the taught component of the Programme.

d. Any student receiving exemption from a module through credit transfer will have their period of study pro-rated.

e. The modules exempted through credit transfer will be considered as normal pass (grade C at 40%) for the degree completion requirements.

f. As the University does not offer a GPA, credit transferred modules will not count towards any record of GPA.

10.3 Attendance, Withdrawal and Suspension

Students may not attend class until they have formally enrolled in their Module(s). The student administration team will assist you with any queries or concerns you have in regard to any non-academic related queries. In regard to academic issues the students should contact their Module Tutor or their Personal Tutor

10.3.1 Attendance

All students at the University are expected to be independent learners and must take responsibility for achieving their learning outcomes and reaching their potential. This notwithstanding, regular attendance and participation is closely linked to retention, progression and academic achievement and therefore, the University expects students

to attend all published classes for each module. Students are expected to achieve a minimum of 70% attendance in each taught module

Students who fall below the minimum University requirement may be deemed to be failing to progress. BUiD is obliged to inform Dubai International Academic City (DIAC) if attendance falls below this requirement which will result in withdrawal of the Student Residence Visa.

10.3.2 Suspension

Students who are unable to follow his/her programme of study for a significant period of time due to circumstances that are largely beyond the student's control, a temporary suspension of study may be granted by the Dean of the relevant faculty. These circumstances can include, amongst others,

- Substantial changes to employment commitments or changes of circumstance
- Medical and health problems
- Personal and family problems
- Bereavement
- Problems experienced because of failure of University equipment or lack of access to equipment for good reasons that are outwith the control of the student
- Problems experienced because of substantial deficiencies in the provision of supervision or facilities

Periods of leave of absence count towards the student's total permitted duration of study. During the suspension study period, students will not be entitled to supervision or use of any University facilities including ID cards, library and computer access

All applications for suspension of study should be made in writing on the appropriate form and supported by documentation where appropriate e.g. medical or hospital certificates.

10.3.3 Withdrawal from a Module

A student who withdraws in the early part of the module (i.e. before 30% of the scheduled classes have been conducted) will be withdrawn upon request. For any such instances the module will be deleted from the student's registration record and the student may seek a refund in accordance with the relevant University policy.

Any student who withdraws after 30% of the scheduled classes have been conducted will be classed as "late withdrawal". Such students will have to complete and submit to the Head of Student Administration a Late Withdrawal form on which they must check that they are withdrawing either 'With Cause' or 'Without Cause'. Any withdrawals where the student has attended between 30% and 50% of the module and is withdrawing without cause, the student will be liable for the half cost associated with the module.

In case of a "late withdrawal" of a student after 50% of scheduled classes, the student will have to complete and submit to the Head of Student Administration the Late Withdrawal form. the student will be liable to pay full costs associated with the module and the student transcript will show a status of "LW". The student will have to repeat the module with full attendance and no assessment marks will be carried forward. The student will attempt all the assessments upon re-registration as for the first time. However, the "LW" status on the transcript will remain permanently on the transcript

A student seeking withdrawal from a module 'With Cause' at any point after the first 30% classes must submit the completed Late withdrawal form to the Head of Student Administration together with medical or other evidence in support.

10.3.4 Permanent Withdrawal from the Programme

There are three categories of permanent withdrawal recognised by the University

a. Withdrawal Requirement by the University

The University has the right to require permanent withdrawal of the student from a programme in the following cases;

- the students fails academically (University Assessment Regulation 16.2)
- student admitted on probationary basis fails to satisfy conditions of probation (Graduate Admissions Policy)
- There is an established case of academic dishonesty or any other disciplinary offense whereby the relevant committee has recommended dismissal of the student.

b. Withdrawal due to Lapse of Registration Period

In certain cases, students are unable to complete their programme within the stipulated maximum allowable programme duration. Mostly this happens with students who had suspended their study and despite attempts on the part of the University, not respond to any communications regarding their study intentions.

c. Voluntary Withdrawal from the Programme

Any student may withdraw permanently from a programme at any point in the year. Students wishing to withdraw from their studies must submit a **Request to Withdraw Form** available from Student Services. If the form is not submitted, then the university will carry on submitting the cheques deposited. Upon the submitting the Withdrawal form, the remaining cheques will be returned, dependent upon tuition fee payments being up to date.

10.4 Academic Advising

The University is committed to ensuring that its students successfully complete their chosen programme of study and wherever possible do not leave prematurely without obtaining an appropriate qualification. To ensure an excellent student experience, academic advice and support is available to students throughout the course of their programmes through a number of channels. The advisors who are directly involved with student progression and performance are:

- Personal Tutor/Student Academic Tutor
- Module Tutor
- Module Coordinator
- Dissertation Supervisor (Applicable only to programmes having a dissertation component)
- Head of Programme/ Programme Coordinator

Personal Tutor

On entry to the University all students will be assigned a named personal tutor responsible for offering personal and general academic support and guidance that is clearly distinct from subject-specific tutoring. Student should formally meet their personal tutor once in the induction week and then at least at the start of each term. The student must be able to arrange meetings at other times also as required. The students could also seek advice through other informal channels for example email correspondence etc. The Personal Tutor is responsible for

i. Being available as a first line of pastoral support with whom to discuss non-academic problems and difficulties on studying, financial and other problems
ii. Monitoring and supervising a student's overall progress on the programme
iii. Advising the student on other available student support mechanisms (study skills support etc.) and how these can be accessed
iv. Providing support to students where performance is below expectations
v. Ratifying each student's choice of modules for the coming term and hence monitoring the student's Plan of Studies.
vi. Referring students as necessary to University regulations and ensuring that students are familiar with relevant University procedures
vii. Providing advice and support in cases where the student requests to suspend study, withdraw from a module, change programme or withdraw from a programme

Students' Responsibilities related to Personal Tutoring

In order for personal tutoring to be beneficial and meaningful students will be expected to undertake the following:

1. Maintain regular communication with their personal tutor.
2. To consider how they can address or facilitate any self-help for problems or concerns raised with personal tutor.
3. To attend all scheduled meetings or agree an alternative time if it is inconvenient
4. Contact personal tutors if there are any issues that may impact on their academic performance or pose any risk to their progression or withdrawal
5. Act on any recommendations and advice offered by personal tutors

Module Tutors
Module tutor is the person responsible for teaching the module. During the term, the Module Tutors teaching each module will make themselves available to students through establishing weekly office hours (minimum of two hours per week for staff teaching current modules, other staff by appointment) during which they may be consulted on curricular and related matters, and give individual advice on matters pertaining to the programme. Outside these office hours, staff should be available by appointment.

Module Coordinator
At BUiD, each module has a designated Module Coordinator, where there is a single module tutor than he/she would hold both roles. However, where there are several module tutors, one will be appointed as Module Coordinator. For any module being taught by an adjunct lecturer a full time staff member of the University will be assigned the responsibilities of Module Coordination. Module Coordinators should be available to students by appointment so they may be consulted on any module related matters where students need advice in addition to the advice given to them by their Module Tutors.

Head of Programme / Programme Coordinator
Students may consult the HOP/Programme Coordinator should they experience any difficulty which is impairing academic performance. The HOP/Programme Coordinator will discuss and, if possible, suggest solutions for any problems with academic work, and may involve other members of staff, e.g. personal tutors or module coordinators, where appropriate.

10.5 Academic Honesty and Integrity
Academic honesty and integrity is an ethic fundamental to the British University in Dubai. The University is committed to inculcate a culture of respect, understanding, and observance of this ethic, and thereby to demonstrate:

- the credibility and value of its intellectual work
- the trustworthiness of the credentials it awards
- the reliability of the research conducted in its name

Types of Academic Dishonesty

Manipulation: submitting work in a format intended to mislead or bypass technology or procedures used by the University to detect academic dishonesty.

Fabrication of data: Submitting work that was completed in part or whole by someone who is not the student with ID enrolled on the programme (e.g. other student; work colleague or employee, any individual or entity contracted by a personal or commercial relation). This also includes contravention of examination procedures: e.g. communicating with a third party during the exam whether in person, telephonically, or electronically; bringing and/or using material not explicitly allowed in the exam; referring to and/or copying the work of others also taking the exam; falsifying identity in the exam)

Plagiarism: Presentation of the intellectual work of another person as if it were the presenter's own original work. This occurs when phrases, clauses, sentences, paragraphs or longer extracts are presented without acknowledgement of the source (original author); presentation of work as if it were original work when in fact it is substantially the same or the same; work previously submitted for assessment and/or credit and/or publication (self-plagiarism; recycling); presentation of another person's work or the student's own previously submitted work without the deliberate intent to claim it as own and original work, but failing to acknowledge the original source owing to carelessness, recklessness, or ignorance (negligent plagiarism)

Collusion: Unauthorized and/or unacknowledged collaboration with another person or persons in the production of intellectual work that is to be submitted by the individual student. This includes contracting with individuals or entities on a commercial basis and supply in part or whole of work completed by one student for submission by another student as their own. The colluder (the other party) is considered perpetrator of the dishonest act alongside the student.

10.6 Assessment

Each module is assessed separately, and in relation to the module learning outcomes found in the module syllabus. Both full-time and part-time students must pass all the taught modules with an aggregate mark of 50% in each. The pass mark for the dissertation is 50%.

Taught modules will be assessed individually by a mixture of coursework assignments and written examinations.

Coursework assignments are intended to assess the ability of students to apply what they have learned to specific problems. Each coursework assignment has its own brief, in which the particular learning outcomes for that assignment are given. The assignment mark is divided between the learning outcomes.

There are two main types of assignment.

- In one, students hand in a report to the module coordinator for assessment. The student receives written feedback from the module coordinator and an assessment in the form of a provisional percentage mark.
- In the other, students display their work on boards and explain it to a small panel of critics, who assess the work. Feedback to the students comes in three forms: verbal comment and discussion amongst the panel of critics and co-students; written feedback from the module leader or one of the critics; and a provisional assessment in the form of a provisional percentage mark.

The briefs for these will be set by the module coordinator, and they will include submission deadlines to which students must adhere.

Written examinations assess the spread of a student's knowledge in the subject. They will normally be by unseen paper and between 2 and 3 hours' duration, depending on their weighting in the module assessment. Each examination paper will normally be set by the academic staff responsible for each module and vetted by appropriate members of the Board of Examiners and the External Examiner. Questions may be set on any aspect of the lectures.

Students will receive details of examinations for each module from the academic staff concerned and these details shall be published by a deadline in advance of the assessment time, to be determined by the Programme Coordinator. Any procedures adopted for the running of examinations will be subject to BUiD general regulations.

Other modes of assessment are possible, with the approval of the Programme Coordinator, such as the use of open-book or pre-released examination papers.

10.7 University Grading System

University Module Marking Scheme

Module Grade	Module mark	Module GPA	
A	75+	4.00	Pass
A-	70-74	3.70	Pass
B+	67-69	3.30	Pass
B	64-66	3.00	Pass
B-	60-63	2.70	Pass
C+	57-59	2.30	Pass
C	54-56	2.00	Pass
C-	50-53	1.70	Pass
D+	47-49	1.30	Pass
D	44-46	1.00	Pass
D-	40-43	0.70	Pass
F	0-39	0	Fail

Graduation Scheme

CGPA	Degree Classification	British Equivalent
3.70-4.00	Distinction	First
3.30-3.69	Merit	Upper Second
2.00-3.29	Pass	Lower Second

10.7.1 University Grade Descriptors

Student performance in written examinations, practical work and oral examinations, reports, essays and the dissertation will be assessed against the following criteria

Criteria	Level of Achievement Indicators					
	0-29%	30-39%	40-49%	50-59%	60-69%	70-100%
1. Research Systematic identification and investigation of appropriate sources	Little or no information presented	Information presented does not relate sufficiently to the task; there may be evidence of rudimentary research	Adequate information has been gathered and documented from readily available sources applying standard techniques	Information is accurate, appropriately categorised and from a range of sources	Well informed judgements made of the relative value of connected information from a wide range of sources	Extensive independent research, accuracy, familiarity with the material,and sound judgements
2. Analysis Examination and interpretation of resources	Little or no evidence of examination of source material	Constituent elements may be incorrectly identified; analysis may be attempted but unjustified	Key elements within relevant information are identified, but may lack accurate interpretation	Accurate interpretation of the relationships between constituent elements	Accurate interpretation and evaluation of relationships between elements	Accurate and perhaps personal synthesis and evaluation of elements
3. Subject Knowledge Understanding and application of subject knowledge and underlying principles	Unable to evidence or articulate basic principles and knowledge related to the subject	Limited knowledge of subject and its development	Evidence of understanding key aspects of the subject context, in current debates and/or historical background. References to some relevant movements/ people	Accurate understanding of subject context. References key movements and people	Accurate extensive understanding of subject context. Evidence of appreciation of the relative significance of movements and people	Contributes to the subject debate by assimilating knowledge into a personal hypothesis (or elements / the beginnings of one)
4. Experimentation Problem solving, risk taking, experimentation and testing of ideas and materials in the realisation of concepts	Little or no engagement with alternative ideas and processes	Unable to identify problems; does not understand the purpose of risk taking or exploration of alternatives	Operates within familiar and well established ideas, processes, media and/or materials; some evidence of exploration	Evidence of exploration of processes, media and materials; may lead to potential directions for future work	Evidence of conceptual risk taking / using own analysis to inform further cycles of inquiry and potential future directions	Unfamiliar conceptual territories may be explored

Criteria	Level of Achievement Indicators					
	0-29%	30-39%	40-49%	50-59%	60-69%	70-100%
5. Technical competence Skills to enable the execution of ideas appropriate to the medium	Execution demonstrates poor judgement and very limited command of techniques	Uses limited rudimentary processes exercising little judgement	Skills are adequate to communicate ideas; accepted conventions and procedures are usually applied	Skills facilitate communication of ideas; evidence of checking / testing / finishing; conventions and procedures are used consistently and appropriately	Skills facilitate practice and the communication of ideas; full command of conventions and procedures is evident	Idea and technique are unified. Discernment and judgement are evident. Craft skills may have contributed to conceptual advances
6. Communication and Presentation Clarity of purpose; skills in the selected media; awareness and adoption of appropriate conventions; sensitivity to the needs of the audience	Ineffective use of visual/ oral/ written communication conventions in the production and presentation of ideas	Partial lack of awareness and observance of conventions and standards; lack of clarity in structure, selection and organisation of information; lack of awareness of audience	Conventions and standards are applied; structure is clear; information selection and organisation shows awareness of audience requirements and preferences	Communication media have been selected / used with good judgement; standards and conventions of use have been fully adhered to; decisions show awareness of the audience and the context	The nature and strengths of appropriate communication media have been exploited; information has been selected, organised and presented showing awareness of context and audience	Message and medium are unified with personal style; the communication is persuasive and compelling; it takes full account of diverse audience needs
7. Personal and professional development Management of learning through reflection, planning, self direction, subject engagement and commitment	Consistent lack of evidence of reflection or planning for learning. No awareness of personal strengths and weaknesses in relation to task	Sporadic evidence of reflection and planning not followed through consistently. Incomplete awareness of personal strengths and weaknesses	Evidence that reflection and planning have led to increased subject engagement and commitment. Developing an awareness of strengths and weaknesses	Evidence that a cycle of reflection and planning has been iterative and productive. Actively works to develop strengths and mitigate weaknesses	Reflection and planning is self directed, iterative and habitual. Strengths have been successfully built on, weaknesses have been mitigated	Takes full responsibility for own learning and development through iterative cycles of well articulated purposeful analysis and planning, supported by extensive evidence of impacts

Criteria	Level of Achievement Indicators					
	0-29%	30-39%	40-49%	50-59%	60-69%	70-100%
8. Collaborative and/or independent professional working Demonstrates suitable behaviour for working in a professional context alone or with others	Does not collaborate with others; unproductive working alone; shows no knowledge of related profession	Collaborates reluctantly; struggles to produce work alone; has unrealistic view of professional life	Awareness of main standards required of relevant profession. Able work both collaboratively and independently	Aware of and able to meet most standards required of relevant profession in simulated or real professional situations. Productive when in a team or working alone	Aware of and able to meet most standards required of relevant profession in simulated or real professional situations. May work well in a team, provide effective leadership, and demonstrate a well rounded profile working alone	Integrates a sense of own identity productively into real or simulated professional situations. Can comfortably work as team member, in leadership role, or alone

10.8 Duration of Study

All degree requirements must be completed within seven years of admission to BUiD as an undergraduate degree student. the duration of study is calculated from the date of the first registration in the relevant programme and includes all Suspend Study periods

10.9 Graduation

The Board of Examiners is responsible for making final decisions on all module marks, the satisfactory completion of the taught component of programmes, and the final award

Programme Graduate Completion Requirements

1. Students must attain at least 480 undergraduate level credits at BUiD.
2. Students must successfully pass all modules, as required by the approved structure and syllabi to be eligible to receive their degree
3. A minimum overall GPA of 2.0 on a 4.0-point scale (equivalent on the BUiD marking scheme to a 40% pass overall) will be required in order for a student to successfully complete the programme
4. The majority of final year credits must be earned via study at BUiD
5. No more than 50% of the credits may be earned through credit transfer.
6. Students must attend for at least 70% of all contact sessions
7. Students must be registered for the programme for a minimum of 4 years and a maximum of 7 years
8. Students must not have any outstanding debt with BUiD

Graduation Ceremony

BUiD will hold one graduation ceremony each year; this will usually be in November or December. Details will be sent to the students and also published on the university website.

SECTION 11 Teaching and Learning

11.1 Study Plan

The study plan provides students with an indicative path-way on your academic journey throughout your studies. The individual study plans will be determined and reviewed at the start of each academic term, in consultation with your personal tutor, depending upon factors such as; your academic and personal circumstances, your previous performance, academic probation and/or progression restrictions and the academic timetable for the relevant term.

Prerequisites and Co-requisites
A program of study may also require that module be taken in a certain order or taken together. A module that is required to be taken before another course is called a "prerequisite". Students are not allowed to register for any module with a prerequisite unless the prerequisite module has been completed with a passing grade. A "co-requisite" is a course that is designed to be taken together with another module

Limitation of modules offered
The University reserves the right to cancel a module even though it is listed in the catalogue or in the timetable. Notification of a cancelled module will be sent to students at their University email address.

11.2 Teaching and learning strategies and methods

Programme teaching will have a strong emphasis on interaction in the classroom and, consistent with the British system, it will be made clear to the students that they are expected to challenge perceived wisdom at all times in order to develop their critical faculty. Programme will aim to exploit the mix of new ideas and practical experience within the student body itself.

Teaching and learning on modules will be through a variety of formats:

- Lectures
- Seminars
- Student presentations
- External speakers
- Practical teaching at educational institutions

The main style will be the small group seminar, where a topic is introduced and students engage in a range of activity to develop skills and understandings of that topic, for example:

- Pair and group discussion
- Debate
- Prepared presentation
- Case studies
- Simulations
- Text or video analysis
- Materials development
- Independent study will be paper-based and web-based.

Interaction with tutors will be:

- Face-to-face
- Through email to discuss particular problems or to submit outline drafts of assignments.

11.3 Credit Hours

A credit is equivalent to approximately 10 hours of study. Each module of 10 credits is equivalent to 100 hours of student effort. The hours of student effort comprises:

- The face-to-face contact hours
- On-line discussion with tutors
- Independent reading and web-based study

Section 12 Rights and Responsibilities

12.1 Student Code of Conduct

1.Student are responsible for:

- Conduct that expresses respect for the University's values.
- Gaining knowledge and understanding of all policies that bear on their conduct and academic progress at the University, including discipline, assessment, and attendance requirements.
- Compliance with the terms of policies that apply to them.
- Collegial participation in classes.
- Observing the highest standards of integrity.
- Openness, honesty and respect in dealings with others.
- Observing international standards in research conduct, including documentation of results, critique of findings, and acknowledgement of the contribution of others through adherence to bibliographic conventions.
- Appropriate use of the University's Information Technology infrastructure.
- Prompt payment of financial liabilities.

2. A student's failure to observe his/her responsibilities may result in imposition of penalties set out in the University's Student Disciplinary Policy.
3. The University has the right to apply the terms of its Student Disciplinary Policy to any students who commit an offence, including but not limited to the following:
    - Disruption of, or improper interference with, the academic, administrative, social or other activities of the University, whether on its premises or elsewhere.
    - Violent, indecent, disorderly, threatening, or offensive behaviour or language, whether expressed orally or in writing(including electronically), including sexual or racial harassment of any student, member of staff or other employee, whilst on the University's premises or engaged in any University activity.
    - Conduct which unjustifiably infringes freedom of thought or expression whilst on University premises or engaged in University work, study or activity.
    - Fraud, deceit, deception, or dishonesty in relation to the University or its staff or in connection with holding any office in the University or in relation to being a student of the University.
    - Action likely to cause injury or impair safety on University premises.
    - Conduct which constitutes a criminal offence (including conviction for an offence).
    - Behaviour which is such as to render the student unfit to practise any particular profession or calling to which that student's course leads directly.
    - Without prejudice to the right to fair and justified comment and criticism, behaviour which brings the University into disrepute.
    - Failure to disclose their name and other relevant details to an officer or employee of the University in circumstances when it is reasonable to require that such information be given e.g. while securing admission to the University.
    - Without prejudice to the right to raise academic and other concerns responsibly within or outside the University, the making of false and malicious reports of malpractice, which upon investigation are proved to be unfounded.
    - Violation of Dubai International Academic City (DIAC) non-smoking policy.
    - Violation of DIAC student resident visa regulations.
    - Withdrawal of Student Visa status following action by DIAC.
    - Disregarding University rules and regulations.

12.2 Student disciplinary offenses

The following are examples of what might constitute misconduct:

- disruption of, or improper interference with the academic, administrative, sporting, social or other activities of the University;
- obstruction of, or improper interference with the activities, functions or duties of any student, staff member, University Council member, contractor or visitor to the University;
- violent, disorderly, threatening, indecent or offensive behaviour or language whilst on University premises or elsewhere;
- falsification or misuse of University records, including degree, diploma or other certificates, and of University equipment, systems and processes;
- false pretences or deception relating to academic assessments and examinations;

fraud, deceit or dishonesty in relation to the University or its staff or in connection with registering as a student, being a student, holding any office at the University or gaining a pecuniary advantage through association with the University;

- actions which might cause injury or put at risk the health or safety of people on University premises or whilst on University activities;

- harassment or bullying in any form including via social media of any student, member of staff, University Council member, contractor or other visitor to the University on grounds of their perceived race, nationality, gender, transgender status, disability, sexual orientation, religion, belief, age, other personal characteristic or for any other reason;

the expression of any extremist views that have the potential to incite discrimination or violence by or towards others;

- theft, damage to or defacement of University property, or the property of other members and users of the University or third parties, whether caused intentionally or recklessly;

attending classes or entering any other learning environment whilst under the influence of alcohol or drugs;

- misuse or unauthorised use of University premises or items of property, including computer misuse, or breaches of the University code on acceptable network use;
- conduct which constitutes a criminal offence, including possession of offensive weapons, possession of implements that are intended for use as weapons and possession of illegal substances on University premises or at an event under the control of the University, or an offence affecting other users of the University or the public;
- failure to disclose name, student number or other relevant details to a staff member of the University, when it is reasonable that such information be given;
- failure to comply with a previously imposed penalty under the disciplinary procedures;
- bringing the University into disrepute.

The above list is not exhaustive.

The following framework will be referred to in determining the level:

Level of seriousness	**Examples of types of offence**	**Action**	**Dealt with by**	**Record**
1 Minor (Informal disciplinary measures)	Rudeness Disruption in class Poor attitude to staff, other students or members of the public	<u>Guidance:</u> Pastoral guidance interview with University Counsellor	Dean of Faculty (with Disciplinary Board guidance where appropriate)	Faculty to keep brief note of the complaint and that guidance interview has taken place
2 Significant (Informal disciplinary measures)	Repeat offences or more serious offences	<u>Warning:</u> Disciplinary Interview and informal warning Restriction or injunction to avoid certain behaviour	Dean of Faculty (with Disciplinary Board guidance where appropriate)	Faculty to keep brief note of the complaint and that warning interview has taken place
3 Serious (Formal disciplinary measures)	Serious disciplinary offences	<u>Formal hearing:</u> Formal penalties as described below	Head of Student Administration and Disciplinary Board	Formally recorded Disciplinary Board hearing, investigation and decision coordinated by Head of Student Administration

Where the offence is sufficiently serious, the Head of Student Administration may make a recommendation via the Registrar to the Vice Chancellor to suspend the student about whom the complaint has been made whilst the complaint is being investigated.

On receipt of a report from an Investigating Staff Member, the Head of Student Administration will determine the action to be taken in accordance with the following guide:

Category	**Level of complaint (see Table 1)**	**Decision**	**Action**	**Dealt with by**
A	1 Minor	That there is no	The Head of Student	Head of Student

	2 Significant 3 Serious	case to answer	Administration will write to the student indicating that the matter is closed. They will copy this letter to the Investigating Staff Member, the Dean of Faculty, any appointed Disciplinary Board member and the person who made the original complaint	Administration
B	1 Minor 2 Significant 3 Serious	That the offence has been admitted or partially admitted and is minor	The Head of Student Administration will request the Dean of Faculty to apply the appropriate action in accordance with Table 1. The Head of Student Administration will write to the person who made the original complaint advising them of the outcome	Dean of Faculty
C	1 Minor 2 Significant 3 Serious	That the offence is admitted or partially admitted but is more serious, or is a second or further offence	The Head of Student Administration will organise a Disciplinary Board to consider the allegation at a formal hearing	Head of Student Administration/ Disciplinary Board
D	1 Minor 2 Significant 3 Serious	That the offence is not admitted	The Head of Student Administration will organise a Disciplinary Board to consider the allegation at a formal hearing	Head of Student Administration/ Disciplinary Board

Where the Disciplinary Board finds the student guilty, the student will be given an opportunity to present any mitigating circumstances or other factors they wish to have taken into account. The Disciplinary Board will then recommend the penalty to be applied, or may adjourn the meeting to consider the appropriate penalty further.

Penalties may include one or more of the following:

a) a requirement for the student to apologise to those affected by the actions which were complained of;
b) a written warning to the student, to remain on their record for a period determined by the Disciplinary Board;
c) a fine proportionate to the offence;
d) a requirement to make good the cost (in full or in part) of any damage or loss caused to property, whether that of the University or a third party;
e) exclusion from a particular section of the University's premises or facilities for a fixed or indefinite period such as suspension or expulsion;
f) a recommendation via the Registrar to the Vice Chancellor that the student be permanently dismissed from the University. Only the Vice Chancellor can permanently dismiss a student, and the Vice Chancellor may commute the proposed penalty to a lesser one if it is felt appropriate. If a decision to permanently dismiss is enacted then the University may advise other appropriate bodies of the action that it has taken.

The above list is not exhaustive. The Disciplinary Board may recommend a penalty or action not listed above, which will be subject to the agreement of the Registrar. A record of the offence and penalty will remain on the student's file for the remainder of their period of study.

All recommendations for penalty are subject to confirmation by the Registrar, and the Registrar's decision is final, except where the recommendation is for dismissal, in which case the Vice Chancellor will make the final decision.
A student may appeal the decision of the Disciplinary Board by writing to the Registrar within ten working days of receiving written notification of the Disciplinary Board decision, setting out the grounds for appeal.
The following alone shall constitute grounds for appeal:

a) that new and relevant material evidence or information has emerged, which could not have been made available for consideration at the time of the Disciplinary Board hearing;
b) that the decision reached was perverse in the light of the evidence presented;
c) that there was a procedural error at the Disciplinary Board hearing or in the process leading up to it which had a material effect upon the Disciplinary Board decision; or
d) that the severity of the penalty imposed was unreasonable and disproportionate.

The Registrar will determine whether the grounds are sufficient for an appeal to be heard. If not, he or she will inform the student in writing of this decision as soon as possible. This decision is final, and there will be no further right of appeal in the University's procedures.
If there are sufficient grounds for appeal, then the Registrar will convene an Appeal Board.
Where it is suspected that a criminal offence has been committed, the University will refer the matter to the police. Where the police are investigating a particular matter, any investigation by the University relating to the same matter will normally be suspended but may recommence when the police investigation is completed. The University may, exceptionally, decide to proceed with its internal disciplinary process before a police investigation is complete. In such cases, the University will take into consideration any new information that arises from the police investigation.
Whether or not a matter results in a criminal prosecution or other forms of civil reprimand, the University may decide to pursue disciplinary action in relation to any matter brought to its attention.
The University and the police may share information about a student in order to progress either a police investigation or a University disciplinary investigation. The University may also use other means of information gathering such as web searches to collect or check information that is in the public domain regarding a student or an incident, for example court listings or news reports. Such information sharing and gathering will have due regard for Data Protection legislation and credibility of the source.

12.3 Student Complaint Procedure

BUiD is committed to maintaining an effective procedure to allow all members of its community to make legitimate complaints. Students are entitled to lodge complaints concerning any aspect of University's services, including:

- Teaching and academic facilities such as quality of teaching or laboratory facilities
- Academic services such as computing or library services
- Personal support such as the Careers Service or Project Supervisors
- Administrative services such as Faculty Offices.

The Complaints Procedure shall not apply to cases in which an individual wish to appeal against an academic decision; in such instances the applicant should follow the Appeals Procedure for students.

Stage 1 - Informal Complaint to the Person Directly Responsible

If possible, the complaint should initially be addressed to the member of University staff who is directly responsible for the situation in question.

If a matter of University policy or practice is the source of the complaint, the student should seek to identify the person with responsibility for its implementation or operation. For instance, complaints about the content of a particular module should be addressed to the academic staff member teaching the module.
In order to ensure that the complaint is raised at a mutually convenient time, the student should try to arrange an appointment with the staff member concerned. The staff member may request the presence of a colleague and the student may wish to bring a friend to the meeting. Staff should be happy to deal with complaints raised on an informal basis, but if the student feels unable to approach the individual directly concerned they may proceed directly to Stage 2.

Stage 2 - Formal Complaint to the Dean of Faculty or Registrar

If the student feels unable to approach the staff member who is directly responsible, or considers that the matter has not been satisfactorily resolved, s/he should raise the complaint by completing the relevant form and submitting it to the Dean of Faculty or Registrar.

Having reviewed the complaint and meeting with the student the Dean of Faculty/Registrar will outline how s/he intends to deal with the situation and when this is expected to be completed. The student will be notified in the event of any subsequent delay. The investigation should be completed as swiftly as possible and certainly within 3 weeks from the time of the initial hearing.

Once the complaint has been fully considered, the Dean of Faculty/Registrar will notify the student in writing of his or her conclusions and of any consequent action the Faculty intends to take.

If the student is not satisfied with the action taken at Stage 2, s/he may then choose to proceed to Stage 3 of this process.

Stage 3 - Formal Complaint to the Vice-Chancellor

If the student is not satisfied that the matter has been resolved at Stage 2, a formal complaint to the Vice- Chancellor should be made by using the relevant complaint form.

If the complaint has already been heard under the procedure outlined in Stages 1 and 2, then any further investigation under Stages 3 of this procedure will normally be confined to an investigation of the handling of that complaint, and not into its substance.

The Complaint Form must be submitted, with any supporting documentation, to the Vice- Chancellor, who will then investigate the matter with relevant members of the staff in the Faculty concerned. The Dean of Faculty will be involved in the investigation of all complaints relating to academic matters, and the Registrar and Head of the relevant service in all complaints relating to the support services and the administration.

Unless notified otherwise, students should expect that written confirmation of the outcome of the investigation, and any consequent action BUiD intends to take, within 3 weeks of submission of the complaint form.

The decision at this stage will be final and will bring the University's investigation of the case to a close.

12.4 Student Appeals Policy and Procedure

A candidate has the right to lodge an appeal against the results of an examination. 'Examination' is understood to include any written, practical or oral assessment, continually assessed coursework or dissertation which counts towards the final module or award grade.

Factors which may adversely affect a student's performance in an assessment or examination must be drawn to the attention of the Examiners in writing by the student as soon as possible and, in any event, before the meeting of the Board of Examiners.

The formal grounds under which an appeal may be considered are:

a. Substantial information directly relevant to the quality of a performance in the examination which was not available to the Board of Examiners when their decision was taken.[1]

b. Alleged improper conduct of the examination

Appeals against academic judgement are not permitted. If appellants have issues with regard to a mark awarded, they must demonstrate that the process by which the mark was approved was flawed (i.e. though grounds a and/or b above).

Appellants must specify the formal ground or grounds under which they believe their appeal should be considered. They must also specify the basis or bases on which the formal ground(s) is/are invoked.

Any appeal must be submitted in writing, using the relevant form, to the Head of Student Administration as soon as possible. Only in special circumstances may an appeal be considered more than three weeks after the confirmed results of an examination have been made available to the appellant. The written presentation of the case, which the appellant is required to submit, should contain all the relevant arguments on the basis of which the appeal is being made. Other than in exceptional circumstances the appellant will not at any point thereafter be permitted to introduce new circumstances into the appeal.

Following submission of an appeal the Head of Student Administration will inform the relevant Dean of Faculty (or nominee), and the Personal Tutor.

The Appeal will be reviewed by the Head of Student Administration to assess whether the appeal has been appropriately formulated and, if so, it will be considered by the Appeal Committee.

[1] *Ignorance of the requirements above to report factors which may have adversely affected a candidate's performance, or failure to report such factors on the basis that the candidate did not anticipate an unsatisfactory result in the examinations, will not by themselves constitute good reason.*

If the Appeal has been properly formulated the relevant Dean of Faculty (or nominee) will be invited to provide written comments on the appeal case.

Following the receipt of written comments from the Dean of Faculty (or nominee) the Appeal Committee will be asked to meet in order to consider the appeal case.

The Appeal Committee will be convened by a Dean of Faculty. The remaining membership will include one further academic member of staff, the Head of Student Administration and the Head of Quality. None of the members of a specific Appeal Committee can be drawn from the Faculty in which the student is based.

During the Appeal Committee meeting the appellant and a representative of the Board of Examiners will be invited to attend part of the meeting in order to provide comment and to answer any questions that the Committee may have.

On hearing the appeal, the Committee has the power either to vary the original decision of the Board of Examiners or to confirm it.

A decision of the Appeal Committee is final and only in exceptional circumstances may be appealed. Appeals against Appeal Committee decisions will be considered by the Academic Board.

Section 13.1 General Education Program

The general education modules engages learners in integrated learning activities of sufficient breadth and depth to prepare learners for further studies in their chosen disciplines and to equip them with the necessary skills of lifelong learning. In compliance with the requirements of the UAE Ministry of Education, the general education modules are an integral part of each of BuiD's undergraduate programs.

General modules and University electives

Subject Area	Modules
Preparatory Modules (Non-Credit Bearing)	General Mathematics (to be offered to students who after testing show a requirement.
Islamic studies, history, or culture	**University Elective 1** *Islamic Values
Humanities or arts	**University Elective 2** *Introduction to Philosophy
English, Arabic, or other languages	**English Modules** English I English II
Mathematics or Information technology	**Mathematics/Statistics Modules** Calculus I and Introduction to Statistics **Information Technology Module** Introduction to Computers
Natural or physical sciences	****University Elective 3** Physics I Environment Sciences and Sustainability
Social or behavioural sciences	*****University Elective 4** Introduction to Comparative Politics and Government OR Diversity and Multiculturalism OR History of Science

* Currently only one module exists in this elective choice. The University intends to develop more modules in near future to extend the elective choice in this group.
**For BSc Arch, E-M and BSc IE, *Physics I* and *Environment Sciences and Sustainability* modules are considered to be programme specific modules and students will take both modules.
*** BSc Business Management and BSc Accounting and Finance students will not be required to take a module from this category because in line with ERT observation (and later approved by the ERT), the requirement is already being met by the modules being offered in Economics.

Module Description

General Mathematics: This pre-college mathematics module introduces those students who require foundational mathematics before taking the first undergraduate general education Mathematics 001 module. Those students have required knowledge and skills must test out this module in order not to take it. This module provides students with understanding and application of related topics at the undergraduate level such as: Algebra: integers, decimal & rational numbers, real numbers, complex numbers, functions, inequalities, expressions, equations, graphics, polynomial & binomial theorem, solving algebraic equations; Trigonometry: the triangle, the right-angled triangle, Pythagoras' theorem, trigonometric ratios, sine & cosine rules, solutions of triangles; Precalculus: trigonometric functions, angles and equations, graphs of functions.

English 1: This module is intended for non-native English speaking high school graduates who wish to join an undergraduate programme where the medium of instruction is English, and who have an English Language Level of TOEFL 500 or IELTS 5. This module also consolidates previous language learning and through a critical thinking framework prepares students for academic life. Taking into account individual needs, this programme aims to homogenise standards of achievement. Critical thinking is a fundamental component of academic life. It is an essential skill when reading academic texts, and writing essays and reports, or taking part in lectures, seminars and debates.

English 2: This module is intended for non-native English speaking high school graduates who have joined an undergraduate programme where the medium of is English, and who have an English Language Level of TOEFL500 or IELTS 5. This module also consolidates previous language learning and through a critical thinking framework continues to prepare students for academic life.

Introduction to Philosophy: This module is an introduction to the central questions, concepts, and principles in philosophy through the Western and Arabic traditions covering selections from major philosophers such as Plato, Aristotle, al-Kindi, al-Farabi, Ibn Sina, al-Ghazali, Descartes, Kant, Hume, Mill, Ryle, Searle, and Rawls. The module focuses on the major issues and role of philosophy in providing a foundation to other disciplines such as free will, consciousness, ethics, rights, justice, knowledge theory, and personal identity, including discussion of these issues as they apply to the contemporary world. Included also is discussion and training in constructing and critique arguments and the basic application of logic to argumentation

Islamic Values: The purpose of this module is to provide students with knowledge and discourse on fundamental Islamic values. Student will gain solid knowledge and understanding of the basic fundamentals of Islam, its values, and how values are connected to human development. The module also allows students to discuss research and report findings on issues related to Islamic societies as they highlight some of the practices of Islamic values shared by individuals and in a special connection to the UAE context.

Calculus I: A study of basic college mathematics including topics of algebra, trigonometry, and introduction to calculus. This General Mathematics module of general education focuses on quantitative reasoning to provide a base for developing a quantitatively literate college graduate. Every college graduate should be able to understand major concepts in mathematics and be able to apply simple mathematical methods to the solution of real-world problems. The module accepted in partially to fulfilling the general education mathematics requirement. It emphasizes the development of the student's capability to do mathematical reasoning and problem solving in other modules in the major related programmes and in settings the college graduate may encounter in the future.

Introduction to Statistics: Statistics is the science of reasoning from data. Data and statistical thinking abound in everyday life and in almost all academic fields. Students, in this module, will gain knowledge and skills of data recording and organization by means of statistical analysis. This course will focus on understanding basic statistical concepts and reasoning; probability, organizing, interpreting and producing data; analyzing statistical arguments and communicating findings clearly; and appreciating the relevance of statistics to contemporary issues, and applying solution to statistical problems.

Introduction to Computers: The aim of this module is to examine computer systems and learn how they can enhance personal productivity. The module will focus on essential computer skills in today's world, including computer hardware, important software applications, such as, word processing, worksheets, database, and presentation graphics.

Environment Sciences and Sustainability: The module introduces the fundamental principles of sustainability including avoidance or minimization of negative impacts on the environment; Conservation and efficient use of natural resources; preservation of cultural patterns; and Ecological harmony and respect for biodiversity. It emphasises the importance of creating a liveable environment and the practical goal that our interaction with the natural world should be working towards.

Physics 1: A study of basic college kinematic physics including the following topics: Kinematics in one, two , and three dimensions, Dynamics, Work, Energy, and conservation of momentum, Rotational motion and equilibrium of rigid bodies.

Diversity and Multiculturalism: This module is an introduction to the interdisciplinary field of diversity and multiculturalism studies. The module will focus on acquiring an understanding of basic concepts, theories and models of diversity and multiculturalism as well as their basic social, cultural and political dimensions, including a number of recent areas of controversy, such as governance and multicultural management. The module will also cover the field on an international level, including information on case studies, particularly those relevant to the UAE and region, that have to do with cultural and social issues in organisations with multicultural staff, leadership in a multicultural society, and providing services for a diverse and multicultural population.

Introduction to Comparative Politics and Government: This module is an introduction to the fields of politics and government on an international level. The module will focus on acquiring an understanding of basic concepts and models of governments as well as pros and cons of each type. The module will also concentrate on the different institutions of each type. The impact of these models on the basic social, cultural and political dimensions, including a number of recent areas of controversy. The module will also cover citizenship, interest groups, political parties and their relationship with the state. The module will finally discuss and debate the different models throughout the world as case studies.

History of Science: The course will cover the history of science from a world prospective spanning a period from ancient times to the present. General areas covered will include the origins of science and its development and interaction with society. Specific topics will include the scientific revolution in ancient civilizations, Islamic era, and modern times, and the development of the character of the scientist. The social impact of science on society and religion will be examined.

Section 14 Faculty of Engineering & IT Programmes

Degrees Offered

Bachelor of Science (BSc) Architecture
Bachelor of Science (BSc) Computer Science
Bachelor of Science (BSc) Industrial Engineering
Bachelor of Science (BSc) Electro-Mechanical Engineering

14.1 Bachelor of Science (BSc) Architecture

Head of Programme
Prof Bassam AbuHijleh

Academic Staff

Professors
Prof Abid Abu-Tair

Associate Professors
Dr. Hanan Taleb
Dr. Riad Saraiji

Assistant Professors
Dr Kirk Shanks

Admissions Tutor
Prof Bassam AbuHijleh

The BUiD BSc Architecture degree is designed to provide a considered pedagogy leading to critical and independent learners. The undergraduate course emphasises the specificity of space and place expressed in integration in and acknowledgement of its context. Modules explore architecture as a social art and depict the cultural and ecological conditions that shape the built environment. Students are encouraged to find their responsible roles within the architecture profession. The course considers the role of materiality and technology as integral parts of architectural concepts with emphasis on the importance of occupant experience.

Programme Outcomes

Knowledge
The student will have knowledge and understanding of

1. fundamental working principles, design strategies and integration of the major building services (HV+AC, lighting and pluming) and their impact on the users thermal, visual, acoustics and health comfort and wellbeing as well as their impact on the environment.
2. procurement, construction, servicing, managing and maintenance processes and how they impact on architectural design, economics and the environment.
3. impact of regulatory frameworks, the needs, and aspirations of clients or users, the roles of those who collaborate in the making process and the impact of the design upon the performance, health and welfare of users as well as the overall impact on the environment
4. issues and relationships, including technologies and strategies, involved with the development of a sustainable design approach and outcome
5. basics of business and time management theories and practice including principles of engineering economy in Architectural Practice.

Skills

6. Reflect upon the work of others, past and present, and relate their ideas to a design to form considered judgments about the spatial, aesthetic, technical, economic, and cultural qualities of a design
7. Ability to understand, analyze or prepare a project brief exercising appropriate judgment relating to site analysis, scale, complexity, function, aesthetics and owner's needs
8. Use a range of visual, written and verbal techniques both traditional, e.g. physical model making, and ICT based, e.g. 3D virtual computer models, in order to communicate architectural designs and ideas effectively with a range of people
9. Work effectively in teams by demonstrating an awareness of the varying roles within a group, and the ability to choose the most appropriate role.

ASPECTS OF COMPETENCE
Autonomy and responsibility

10. Investigate, conceptualize and develop the design in three dimensional forms and spaces

11. Develop designs that demonstrate the integrative relationship of structure, building materials, services, constructional elements and their health, economic and environmental impacts

Role in context

12. The ways that architectural and urban histories, theories, strategies, policies and regulations can affect and inform design processes, programs, proposals and the environment.
13. Develop projects that respond to a broad constituency of interests and to the social, cultural and ethical concerns of architecture
14. Creative application of Architectural Theories, Technical Requirements, Historical & Cultural context and Sustainability in Design Studio projects in order to communicate architectural designs and ideas

15. Be aware of the extend of the interaction of the profession with other industries, organizations, regulators and the society in general and how this would reflect on the design process

Self- development

16. Work in a critical and self-directed manner, developing the practices of reflection and lifelong learning

17. Analyze problems and use creative, critical, and reflective thinking, including future trends, to seek innovative and viable solutions.

Programme Structure

Year	Term 1		Term 2		Term 3		Total
	Module name	**# CR**	**Module name**	**# CR**	**Module name**	**# CR**	
1	General Mathematics	0	Calculus 1	10	Environment Sciences and Sustainability	10	
	English 1	10	Freehand drawing	10	Statistics	10	
	University Elective (Humanities/Arts)	10	CAAD	10	History of Architecture	10	
	University Elective (Islamic Studies)	10	English 2	10	Structures 1	10	
	Physics 1	10					120
2	ADS1 (cont)	10	ADS1 (cont)	10	ADS1 (final)	40	
	Structures 2	10	Structures 3	10			
	Materials 1	10	Materials 2	10			
	University Elective (Social Sc)	10	Islamic Arch	10			120
3	ADS2 (cont)	10	ADS2 (cont)	10	ADS2 (final)	40	
	Indoor Environment 1	10	Indoor Environment 2	10			
	Site construction	10	Cities & Landscapes	10			
	The Integrative Design Process	10	Post-Renaissance Western Arch	10			120
Summer							
4	ADS3 (cont)	10	ADS3 (cont)	10	ADS3 (final)	40	
	Arch Working Drawings	10	Issues in Cultural Architecture	10			
	Building Information Modelling	10	Arch Professional Skills	10			
	Fund Arch Practice	10	Special Topics in Architecture	10			120

Module Description

General Education module description are available in Section 12.

Freehand drawing: This module introduces and tends to equip (via numerous assignments) students with the essential skills needed for freehand drawing (i.e. drawing done by hand without the use of tools or aids such as templates, stencils, tracing, etc.). It emphasises on the ability to have good command on the use of hand, improvement in observation skills which helps train the eye for better accuracy in estimating lengths and foreshortenings, and ability to concentrate to achieve better accuracy.

Computer Aided Architectural Design (CAAD): In this modules students will learn to digitize their visual communication skills through variant of image processing and editing tools such as photoshop and adobe Illustrator. Then, they will be introduced to the fundamentals of computer drafting and the tools used in this technique. Students will learn a basic computer drafting vocabulary, line weights and values, as well as the skills necessary to produce floor plans, building sections, elevations, reflected ceiling plan and a quick introduction to Architectural desktop basic 3D and rendering.

Environment Sciences and Sustainability: The module introduces the fundamental principles of sustainability including avoidance or minimization of negative impacts on the environment; Conservation and efficient use of natural resources; preservation of cultural patterns; and Ecological harmony and respect for biodiversity. It emphasises the importance of creating a liveable environment and the practical goal that our interaction with the natural world should be working towards

Structures I: This module provides students with fundamentals of structural analysis (mainly statically determinate structures) and design fundamentals for different materials (wood, and steel). It also provides knowledge sequel to design of structural system for a building. It is envisaged that this module will help students understand how architecture structure functions sequel to issues treated in class.

Architectural Design 1: This is an introductory design module which aims to provide fundamental design training that will aid students understanding of design representation both as a means to communicate design intentions and as a means to understand space and its design development. The module will run over three academic terms.

Materials 1: This module will teach students the basis of building construction works, and what types of building materials are used at different situations. The module focuses on materials and construction methods for: foundation construction, making buildings using wood, brick, stone, concrete and masonry materials. This module will be taught in the context of sustainability. Thus, students will be equipped with sustainability knowledge required during building construction and material selection process.

Structures 2: This module provides students with fundamentals of structural analysis (mainly statically determinate structures) and design fundamentals for different materials (steel, concrete and masonry). It also provides knowledge sequel to design of structural system for a building. It is envisaged that this module will help students understand how architecture structure functions.

History of Architecture: The module will provide an introductory overview of the major architectural traditions of the world, from early civilisations to the
beginning of the nineteenth century. It will introduce students to the study and interpretation of historic buildings and their settings, encourage consideration of the relationship between architecture and its environmental, technological and cultural context.
The student will also develop the ability to identify, research and record information on particular issues from a range of sources and the ability to define a topic and write a well-structured, appropriately referenced academic essay.

Structures 3: This module provides students with Advanced of structural analysis (mainly statically determinate structures) and design fundamentals for different materials (steel, concrete and masonry). It also provides knowledge sequel to design of structural system for a building. It is envisaged that this module will help students understand how architecture structure functions.

Materials 2: This module will teach students the basis of building construction works, and what types of building materials are used at different situations. The module focuses on materials and construction methods for: foundation construction, making buildings using wood, brick, stone, concrete and masonry materials. Case studies of real life applications will also be presented to the students to enhance their understanding of the fundamental

knowledge. This module will be taught in the context of sustainability. Thus, students will be equipped with sustainability knowledge required during building construction and material selection process.

Islamic Architecture: This module offers a comprehensive coverage of Islamic building typologies, their influences, and the context (historical and geographic) within which these types can be found. Also covers the cultural context as both determinants and modifiers of the built form. Scope includes Islamic Art and Architecture since 650AD which surveys works from Spain, Northern Africa, Eastern Europe, Indian subcontinent and the Middle East.

Architectural Design 2: This is a studio based module that runs over three terms and builds on previous design modules, in particular ARCH201 Architectural Design One, which introduces the articulation of private and communal spaces. This design program will focus on the theme of Housing and Society by exploring the relationship between living, working, and other programs which architecture organizes in its construction of social contexts. The program will investigate a unit of the city exploring the relationship between the structure of built space and the creation of social environments. Through a total of three segments of structured projects within this three academic term module, students learning experience will gradually move from simple scale design explored in Architectural Design 1 to multi-spatial public buildings of modest scale set within an urban context, with appropriate structure and construction strategies.

Indoor Environment 1: This module will teach students the fundamental knowledge required when creating bioclimatic and sustainable design. Specifically, it will teach students issues to consider when creating building that will reduce energy consumption without compromising thermal comfort and perception of indoor air of building occupants. They will be taught computer simulation that can be very useful during design process. They will also learn how to administer survey and use measuring instruments needed during post occupancy evaluation.

Site Construction: There are evidences that site construction could contribute positively (if done appropriately) to building sustainability in terms of its effects on materials, energy and water consumption, building occupants' health, comfort, and wellbeing, etc. This module will provide students graphic guide details to site construction in order to achieve these benefits. This module will also provide complete guide to the evaluation, selection and use of sustainable materials in site construction.

Integrated Design Process: The aim of this module is to teach students a new paradigm shift in building design, construction and operation which necessitates cumulative, unified, and creative building delivery processes. Students will learn how architecture, engineering and construction professionals are uniquely suited as team players to produce integrated and sustainable building.

Indoor Environment 2
This module will teach students the fundamental knowledge required when creating high performance building sequel to acceptable indoor light and acoustics performances. They will learn how to administer survey and use measuring instruments needed during post occupancy evaluation to assess the performances and their impacts on perception, health, and comfort on building occupants

Cities and Landscapes: This module focuses on City Urban Design and its landscape, introducing students to elements of designing within an urban context and its landscape. The course concentrates on the analytical methods, representational techniques, and speculative approaches that lie at the foundation of urban design and physical planning. A series of small design exercises introduce tools for interpreting, envisioning, and implementing city and landscape plans including its surface, material and elements. This includes the mapping of social, geographic, and historical phenomena, the development of strategies for the provision of infrastructure and site parcelization, landscape, hardscapes, and the generation of use, massing, and defining public open spaces relevant to the city plan. The course puts particular emphasis on various scales and cultural lenses including the ecological, domestic, civic, greening and transportation through which the city can be understood and projected. Highly structured design exercises expose students to a broad range of urban and landscape situations.

Post-Renaissance Western Architecture: This module follows on from the History of Architectural module. Through it students will develop their knowledge of the architectural history of Europe and North America from the early eighteenth century up to the modern days including a broad introduction to the major figures, movements, ideas and changes in architecture. In the course of the module students will investigate the relationship between architecture and ideology and will develop their ability in critical analysis.

Architectural Design 3: This module is the final studio based module in the programme and aims to develop architectural design ability to an advanced level. Through this module a couple of design projects in term one will prepare the student for a major piece of design work that starts in the second term and is finalized in the third term.

Architectural Working drawings: The aim of this module is to provide students with essential knowledge required to prepare standard drawings. This include knowledge sequel to construction drawings, familiarity with architectural drawings and design, architectural components, construction methods, building materials and specifications, building codes, construction details and written notes.

Building Information Modelling: This module focuses on the use of building information modelling (BIM) tools in construction industry. It addresses and adds to the core skills that underpin Architecture, Engineering and Construction (AEC) practices. The activities contained within the module are designed to reflect, draw on and where possible support the experience of the design studio.

Fundamentals of Architectural Practice: Architectural practice and the construction industry are intrinsically linked to national and global issues. To act effectively within professional life, a critical understanding of this broader context and the constraints and opportunities within which Architects must function, creatively and professionally, must be acquired. Early understanding of this wider context will allow the student to start directing their educational and professional careers to fulfill their individual aims.

This module introduces the student to key issues related to the different phases of an Architectural project and how to prepare, manage and organize such projects. The students will gain knowledge and understanding of the basic principles of initiation, team work, management, control and contractual frameworks which they will need to initiate, direct, and also be subject to during their professional practice.

Issues in Cultural Architecture: This course is an introduction to critical thinking in architectural theory. The scope covers 'contemporary' issues – issues which are currently under debate in architectural theory, research and practice. As such, the course may vary from year to year, depending upon current debates, and upon the research and practice interests of staff, students and visiting lecturers. This module will increase the students ability to describe, name, outline and explain social and cultural issues and issues that are referred to as ‘theoretical’, particularly when participating in design modules and visits relating to design module requirements. The course aims to introduce students to critical debate, to explore the

relationship between words and building, to encourage students to set out their own critical viewpoint, and to prepare students to communicate clearly and write critically. The course consists of weekly lectures, each focused on one theme. Lectures will typically survey different philosophical or intellectual perspectives on the theme and present related architectural examples. Practitioners are invited to lecture on their work in relation to the respective themes.

Architectural Professional Skills: This module is designed to provide the student with the essential set of knowledge and skills needed to do so. This includes the basic principles of initiation, team work, management and control. Knowledge of these principals and acquisition of the associated skills, along with advanced preparation for employment, including an introduction to formal recording of professional development and the principles of engineering economy are intended to support the student’s professional life. The module will help develop the student’s ability to determine their personal professional direction and enhance their ability to play an effective role in the development process.

Architectural Internship: This is an internship module designed to get the students exposed to a wide range of real life architectural practice experience to help prepare them for employment after they graduate. The internship will be over 6 weeks during the summer period between years 3 and 4. This period will be divided into 2-weeks internship in large scale practice, small scale practice and regulatory practice. In each practice the student will be exposed to the different phases of the design process and the challenges involved at each level. The student will also get firsthand exposure to the flow of the design process and the teams that work on each phase.

14.2 Bachelor of Science (BSc) Industrial Engineering

Head of Programme
Dr. Alaa Ameer

Academic Staff

Professors
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Prof Abid Abu-Tair

Associate Professors
Dr. Alaa Ameer
Dr. Hanan M Taleb

Assistant Professors
Dr Kirk Shanks

The graduate of this programme will be equipped with a wide set of relevant knowledge and skills that will prepare him/her for a job market and prepare them to deal with the design of manufacturing process, human-machine interaction and supply chain management tasks. Thereby preparing a future Industrial engineer who is very flexible which will widen their future options in private sectors such as airlines, shipping, transportation, manufacturing, courier services and import/export and relevant governmental sectors include public utilities, oil & gas industry, government services, etc.

Programme Learning Outcomes

Knowledge
1. Acquire knowledge of math, statistics, science, and engineering required to model and solve real life IE problems
2. Gain knowledge of the components and systems involving people, materials, equipment, information, and energy
3. Acquire knowledge of the design, conduct and analysis of experiments in a scientific and systemic way in order to identify the optimum running conditions for such systems
4. Identify, formulate and optimize operations of manufacturing and service systems based on a certain objective function and a set of constrains

Skills
5. Use modern tools to analyze, improve, and optimize engineering systems
6. Recognize the impact of engineering solutions in a societal context associated with the groups of people and their beliefs, practices and needs
7. Realize performance measurement of real systems by identifying feasible key performance indicators and methods of assessment

Aspects of Competence
Autonomy and responsibility

8. Understand the professional and ethical responsibilities of engineers
9. Possess knowledge of contemporary and emerging issues in industrial engineering practices
10. Critique and reorganize business and industrial process flows and information flows

Role in context
11. Design, plan and control integrated production and service systems to meet certain key performance indicators
12. Function effectively in a cross-functional project teams

Self- development

13. Communicate effectively, both orally and in writing with people of different backgrounds and education levels
14. Provide insights into organizational design, management practices, human resources issues, entrepreneurship, business creation, innovation, and project management
15. Recognize the need for, and the ability to engage in life-long learning

Programme Structure

Year	Term 1		Term 2		Term 3		Total
	Module name	# CR	Module name	# CR	Module name	# CR	
1	General Mathematics	0	Calculus 1	10	Engineering Economy and Entrepreneurship	10	
	English 1	10	Environment Sc and Sustainability	10	Statistics	10	
	Introduction to Computers	10	CADD	10	Calculus II	10	
	Introduction to Engineering and Innovation	10	English 2	10	University Elective (Islamic studies)	10	120
	Physics 1	10					
2	Physics 2	10	Systematic Innovation	10	Mechanics of Materials	10	
	Linear Algebra	10	Probability and Statistics for Engineers	10	Quality Engineering	10	
	Engineering Mechanics	10	Differential Equations	10	Introduction to Mechatronics	10	
	Material Science and Metallurgy	10	Manufacturing Processes	10	Programming for Engineering (MATLAB)	10	120
3	Linear Programming	10	System Simulation	10	Machine Element Design	10	
	Design of Experiments	10	Operations Research Optimization I	10	Operations Research Optimization II	10	
	Engineering Management	10	Cost Accounting and Analysis	10	Human Factors and Safety Engineering	10	
	University Elective (Humanities/Art)	10	Work Measurement and analysis	10	Facility Design	10	120
Summer	Internship						
4	Capstone Industrial Engineering Project (cont in three terms	10	Capstone Industrial Engineering Project (cont in three terms		Capstone Industrial Engineering Project (cont in three terms		
	Production Planning and Control	10	Automation of Industrial Systems	10	University elective (Social Sc)	10	
	Supply Chain Management and Logistics Analysis	10	Decision Making and Risk Analysis	10	Maintenance & Reliability	10	
	Lean Operations' Design	10	Total Quality Management (TQM)	10	Human Resource Management	10	
	Service Operations Design and Analysis	10	Entrepreneurship	10			120

Module Descriptions

General Education module description are available in Section 12.

Computer Aided Drafting and Design: This module aims to enable undergraduate engineering students to understand the principles of engineering drawing as well as teach them the ability to generate technical drawings. This is done to show the importance of Engineering Drawing as an important medium for engineering

communication. The module seeks to develop the student's effective utilization of computer-aided drafting software package for producing engineering drawings according to the international conventions and drawing standards. Each week the students will be exposed for a 1 hr. lecture and 5 hrs. of hands on in class exercises in order to gain practical drawing experience.

Introduction to Engineering & Innovation: This module is designed to prepare the student for an exciting career in Engineering in general as well as give the student an understanding of the different professions and specialisations in Engineering. The student will also learn about the ethical issues related to engineering practice. The student will learn the importance and different communications methods used in engineering. The student will gain the knowledge and ability to understand, relate and manipulate different types of units and parameters frequently encountered in the engineering profession.

Engineering Economy& Entrepreneurship: Methods of economic analysis in engineering, including time value of money, equivalence, economic measures of worth, selection rules for alternatives, income taxes and equipment depreciation, inflation, and uncertainty.

Calculus II: A study of basic college mathematics including topics of algebra, trigonometry, and introduction to calculus. This General Mathematics module is the natural extension of the MATH101 module It is of general education focuses on quantitative reasoning to provide a base for developing a quantitatively literate college graduate. The module accepted in partially to fulfilling the general education mathematics requirement. It emphasizes the development of the student's capability to do mathematical reasoning and problem solving in other modules in the major related programmes and in settings the college graduate may encounter in the future.

Engineering Mechanics: Convey the fundamental role of mechanics in engineering. Introduce the concepts of statics mechanics of the force systems in 2 and 3 dimensions with the equilibrium and free body diagrams. Introduce the concept of kinematics to describe the motion of particles and bodies in two dimensions.

Material Science and Metallurgy: Describe the atomic and microstructural characteristics which control the important properties of engineering materials, and interpret material property charts. Relate properties to atomic, molecular and microstructural features. Develop systematic strategies for material and process selection for a given component.

Physics 2: A study of basic electricity and Magnetism physics including the following topics: Electric Fields, Gauss's Law, Electric Potential, Capacitors and Dielectrics, Current and Resistance, DC Circuits, Magnetic Field, Sources of Magnetic Field, Electromagnetic Induction and Faraday's Law.

Linear Algebra: This module provides an introduction to the theory and analysis of linear algebra including: systems of linear equation, matrix algebra, linear
transformations, determinants, vector spaces, eigenvalues and eigenvectors, diagonalization and orthogonality

Manufacturing Processes: The course includes an introduction to manufacturing processes with a focus on metal casting, rolling, forging, extrusion, drawing, machining, and joining (welding, brazing, soldering, adhesive bonding, and mechanical fastening).

Differential Equations: This module provides an introduction to the theory, solution and application of ordinary differential equations. Topics discussed in the module include methods of solving first-order differential equations, existence and uniqueness theorems, second-order linear equations, higher-order linear equations and systems of equations. The relationship between differential equations and linear algebra is emphasized in this module.

Probability and Statistics for Engineers: This module covers graphical representations of data; Axioms of probability; conditioning, Bayes Theorem; Discrete distributions (geometric, binomial, poisson); Continuous distributions (normal, exponential, weibull); point and interval estimation; likelihood functions; tests of hypotheses for means, variances, and proportions for one and two populations.

Systematic Innovation: With globalization, survival depends on the ability of the organization to reduce the product development cycle time and offer innovative products to meet ever changing needs of the users. If innovation is to be a part of the product development process, the team members must be familiar with methods Niche will enhance directed creativity. TRIZ (Theory of Invention Problem Solving) offers the most powerful tools to resolve conflicts in design and to use resources, to minimize harmful effects and to move towards ideal

final result. TRIZ, based on the knowledge of a vast number of patents, can help predict various trends which can be used to develop strategies to meet the challenges of change

Quality Engineering: This module covers the principles and practices of statistical quality control in industry. Control charts for measurements and for attributes. Acceptance sampling by attributes and by measurements. Standard sampling plans. Sequential analysis. Sampling inspection of continuous production.

Introduction to Mechatronics: This module provides basic knowledge and the main principles of Mechatronics. The module introduces Mechatronics as the intersection of multiple fields; Mechanical, Electrical and electronic circuits and components. The module also aims to consolidate the theoretical part of the module in a significant practically based project.

Mechanics of Materials: Make students aware of the key role of structures in different branches of engineering. Illustrate the way in which engineers use the principles of structural mechanics to understand the behaviour of structures and so to design structures in order to meet specified requirements. Examine in detail simple structural forms, including beams and cables; to understand how such structures carry applied loads, and how they deform under load, and how slender members may buckle

Programming for Engineers (MATLAB): This module provides basic introduction to the MATLAB language including: array manipulations, control-flow, script and function files. Simple 2-D plotting and editing. Real engineering problems will be used in the module assignments. This module is intended to provide the student with working knowledge of MATLAB as a solution tool that can be used in future modules or professional practice.

Design of Experiments: This course covers the statistical design of experiments for systematically examining how a system functions. Topics covered will include: introduction to experiments, completely randomized designs, blocking designs, full factorial designs with two levels, fractional designs with two levels and response surface designs

Engineering Management: The structure and principal functions of engineering companies in terms of their activities and procedures are outlined in this module. This includes functions spanning research, design/development through to manufacturing and sales. Performance, safety, reliability and systematic design are discussed. The economics of engineering companies include supply-demand and cost controls are incorporated. Technology, innovation and product development are considered. The companies' potential and growth management plans, risk and profitability profile are assessed. Manufacturing and service operation are detailed and the use of integrated, computer control machining and software engineering is advocated.

Linear Programming: An introduction to the theory and application of the Simplex method in solving the linear programming and dual problem.

Cost Accounting and Analysis: This module covers basics methods for cost accounting with a focus on product costing and pricing methods (job costing, process costing, and Activity Based Costing (ABC)) in addition to break-even analysis, cost-benefit analysis, performance measurement, and companies financial statements.

Operations Research I: Deterministic methods and models in operations research. Unconstrained and constrained optimization. Equality, inequality, and integer constraints. Sequential decisions; dynamic programming. Resource allocation, equipment replacement, inventory control, production planning.

System Simulation: Introduction to systems simulation with special emphasis on: logic and methodologies of discrete event simulation, generation of random numbers and random deviates, survey of simulation languages. At the end of the course the student should be able to develop simulation models of industrial systems and to understand the issues involved in simulation studies.

Work Measurement and Analysis: Theory and practice of work measurement systems including time using direct observations; standard data; predetermined time systems and work sampling; formula construction, line balancing, learning curves and wage payment plans.

Operations Research II: Probability review. Conditional expectation. The exponential distribution and poisson process. Markovian Queueing Systems. Component reliability systems. Applications to replacement, repair, transportation and inventory models.

Facility Design: Planning facility layout and materials handling systems. Analytical and computerized solution of problems in the design of physical facilities

Human Factors and Safety Engineering: This module covers human performance in human-machine systems, including information processing, display and control design, workplace design, and environmental effects on worker performance.

Machine Element Design: This module is intended for engineering students beginning the study of mechanical engineering design. This will cover the basic of specific machine components design, including the design process, mechanics and materials selection, failure prevention under static and variable loading for principal types of mechanical elements. A practical approach is emphasized throughout the course where concise design problems and examples illustrating the ability of the students for design calculation, decision-making process and final engineering design presentation

Production Planning and Control: This module emphasizes inventory control management for production planning and includes topics in inventory control with known and unknown demand, forecasting, lot sizing, dispatching, scheduling, materials requirement planning (MRP), just-in-time models, pull control systems and aggregate planning.

Lean Operations' Design: This module covers the review of philosophies, systems, and practices utilized by world-class manufacturers to meet current manufacturing challenges, focusing on "lean production" in the automotive industry, including material flow, plant-floor quality assurance, job design, work and management practices.

Service Operations Design and Analysis: This module is concerned with improving processes and designing facilities for service businesses such as banks, health care organizations, telephone call centres, restaurants, and transportation providers. Major topics in the course include design of service processes, layout and location of service facilities, demand forecasting, demand management, employee scheduling, service quality management, and capacity planning.

Supply Chain Management and Logistics Analysis: This module covers introduction to resources and systems; Logistics resource optimization: linear programming; Logistics network and flow problems: transportation problems, shortest path and vehicle routing, maximum flow problems; Project and resources management, and operations sequencing and resource scheduling

Automation of Industrial Systems: This course provides hands-on experience working with industrial hardware found in companies that are in the process of automating their manufacturing environment (partially or fully) or have already automated their processes. A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors

Decision Making and Risk Analysis: This module covers the analysis of decisions under uncertainty. Decision trees, influence diagrams, value of information, attitudes towards risk, expected utility; applications from production, inspection, quality control, medicine, finance.

Entrepreneurship: Engineering students will explore the dynamics of turning an innovative idea into a commercial venture in an increasingly global economy. Creating a business plan originating in an international setting will: challenge students to innovate; manage risk, stress and failure; confront ethical problems; question cultural assumptions; and closely simulate the realities of life as an entrepreneur

Total Quality Management: This module cover introduction to innovative philosophies in total quality control. The impact of leadership, organizational infrastructure and client satisfaction on quality management. Utilization and management of information, personnel, processes and product design for continuous quality improvement.

Human Resource Management: An introduction to human resource management. Includes the functions of human resource management: job analysis and planning, recruiting, staffing, orientation and training, performance appraisal, career planning, compensating, and motivating. The diversity of the workforce and the legal content of employment decisions will also be studied.

Maintenance & Reliability: The objective of the course is to provide the students with the fundamental concepts, the necessary knowledge and the basic skills related to systems reliability and systems maintenance function. The

course intends to expose the students to the concept of reliability and to help them learn the techniques of estimating reliability and related characteristics of components/ systems. Moreover, it exposes them to the necessary engineering techniques used for analyzing, planning and controlling maintenance systems

Internship Training: An internship work experience is intended to help you apply your formal classroom education to "real world" work experience and help the student begin to gain valuable experience in a related field of work. The work assignment must be related to your area of interest and may be conducted within business or industry, the public or private sector, state, federal or local government, or social service agencies.

Capstone Industrial Engineering Project: Selection and completion of a project by individuals or team which is typical of problems which IE graduates must solve in their fields of employment, which is representative of those encountered in professional practice. Project typically involves system design, modelling, analysis and testing. Project method includes costs, planning, scheduling, and appropriate research methodology. Formulation of project outline, literature review, project activity scheduling and regular progress reviews by instructor are required. The capstone industrial engineering project will be carried out over 3 terms. The 2nd and 3rd phases involves research methodology: problem statement, method, results, analysis, synthesis, project design, construction (when feasible), and evaluation/conclusions. Project results are presented in formal written report suitable for reference library and formal oral report.

14.3 Bachelor of Science (BSc) Electro-Mechanical Engineering

Head of Programme
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Professors
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Associate Professors
Dr. Alaa Ameer
Dr. Riad Saraiji
Dr. Hanan M Taleb

Assistant Professors
Dr Kirk Shanks

The purpose of establishing a BSc E-M programme at BUiD is to meet the needs of the region in the industrial, manufacturing, airline, shipping, service and governmental sector and to offer a programme with international standing. Graduates of this programme will be equipped with a wide set of relevant knowledge and skills preparing them for an employment market with very diverse needs.

Programme Learning Outcomes (Generic)
The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

Knowledge

1. Acquire knowledge of math, statistics, science, and engineering required to model and solve real life E-M engineering problems
2. Gain knowledge of E-M components and systems involving people, materials, equipment, information, and energy
3. Acquire knowledge of the design, conduct and analysis of experiments in a scientific and systemic way in order to identify the optimum running conditions for such systems
4. Identify, formulate and optimize operations and service systems based on objective performance engineering functions and of constraints

Skills

5. Use modern tools to analyse, improve, and optimize engineering systems
6. Realize performance measurement of real systems by identifying feasible performance indicators and methods of assessment

ASPECTS OF COMPETENCE
Autonomy and responsibility

7. Recognize the impact of engineering solutions in a societal context associated with the groups of people and their beliefs, practices and needs
8. Understand the professional and ethical responsibilities of engineers
9. Design, plan and control integrated power, process and service systems to meet key performance indicators (ABET: c)
10. Possess knowledge of contemporary and emerging issues in E-M engineering practices

Role in context

11. Function effectively in multi-functional, multi-disciplinary project teams
12. Communicate effectively, both orally and in writing with people of different backgrounds and education levels

Self- development

13. Provide insight into E-M design, innovation, and identification issues.
14. Recognize the need for, and the ability to engage in life-long learning

Programme Structure

Year	Term 1		Term 2		Term 3		Total
	Module name	**# CR**	**Module name**	**# CR**	**Module name**	**# CR**	
1	General Mathematics	0	Calculus 1	10	Engineering Economy and Entrepreneurship	10	
	English 1	10	Introduction to Engineering and Innovation	10	Statistics	10	
	Introduction to Computers	10	CADD	10	Calculus II	10	
	Environment Sciences and Sustainability	10	English 2	10	University Elective (Islamic Studies)	10	120
	Physics 1	10					
2	Chemistry I	10	Manufacturing Processes	10	Programming for Engineering (MATLAB)	10	
	Linear Algebra	10	Engineering Mechanics	10	Electrical Engineering II	10	
	Physics II	10	Differential Equations	10	Thermo-Fluid Sciences I	10	
	Material Science and Metallurgy	10	Electrical Engineering I	10	Mechanics of Materials	10	120
3	Advance Applied Maths	10	Applied Numerical Methods for Engineers	10	Machine Element Design	10	
	Engineering Management	10	Thermo-Fluid Sciences III	10	Introduction to Digital Electronics	10	
	Thermo-Fluid Sciences II	10	Machine Theory and Dynamics	10	Human Factors and Safety Engineering	10	
	Electrical Machines	10	Electrical Power Devices	10	Sensors and Instrumentation	10	120
Summer		Internship					
4	Final Year Project (cont. in three terms)	10	Final Year Project (cont. in three terms)		Final Year Project (cont. in three terms)		
	Systems and Control Engineering	10	Electromechanical Design	10	Maintenance and System monitoring	10	
	University Elective (Humanities or arts)	10	University Elective (Social or behavioural sciences)	10	Elective Module V	10	
	Elective Module I	10	Elective Module III	10	Elective Module VI	10	
	Elective Module II	10	Elective Module IV	10			120

Module Descriptions

General Education module description are available in Section 12.

Introduction to Engineering & Innovation: This module is designed to prepare the student for an exciting career in Engineering in general as well as give the student an understanding of the different professions and specialisations in Engineering. The student will also learn about the ethical issues related to engineering practice. The student will learn the importance and different communications methods used in engineering. The student

will gain the knowledge and ability to understand, relate and manipulate different types of units and parameters frequently encountered in the engineering profession.

Engineering Economy& Entrepreneurship: Methods of economic analysis in engineering, including time value of money, equivalence, economic measures of worth, selection rules for alternatives, income taxes and equipment depreciation, inflation, and uncertainty.

Engineering Mechanics: Convey the fundamental role of mechanics in engineering. Introduce the concepts of statics mechanics of the force systems in 2 and 3 dimensions with the equilibrium and free body diagrams. Introduce the concept of kinematics to describe the motion of particles and bodies in two dimensions.

Material Science and Metallurgy: Describe the atomic and microstructural characteristics which control the important properties of engineering materials, and interpret material property charts. Relate properties to atomic, molecular and microstructural features. Develop systematic strategies for material and process selection for a given component.

Manufacturing Processes: The course includes an introduction to manufacturing processes with a focus on metal casting, rolling, forging, extrusion, drawing, machining, and joining (welding, brazing, soldering, adhesive bonding, and mechanical fastening).

Differential Equations: This module provides an introduction to the theory, solution and application of ordinary differential equations. Topics discussed in the module include methods of solving first-order differential equations, existence and uniqueness theorems, second-order linear equations, higher-order linear equations and systems of equations. The relationship between differential equations and linear algebra is emphasized in this module.

Mechanics of Materials: Make students aware of the key role of structures in different branches of engineering. Illustrate the way in which engineers use the principles of structural mechanics to understand the behaviour of structures and so to design structures in order to meet specified requirements. Examine in detail simple structural forms, including beams and cables; to understand how such structures carry applied loads, and how they deform under load, and how slender members may buckle.

Programming for Engineers (MATLAB): This module provides basic introduction to the MATLAB language including: array manipulations, control-flow, script and function files. Simple 2-D plotting and editing. Real engineering problems will be used in the module assignments. This module is intended to provide the student with working knowledge of MATLAB as a solution tool that can be used in future modules or professional practice.

Chemistry I: A study of basic college chemistry including the following topics: Elements and compounds, Periodic table, Basic chemical reactions, chemical bonds, Gaseous state and introductory Organic chemistry.

Electrical Engineering I: Develop an understanding of electromagnetic fields and their application to the solution of engineering problems. The emphasis during the course will be on the physical understanding of the principals involved. Only elementary mathematical methods will be used, including basic vectors concepts of superposition, dot product and cross product. The overall course is designed to introduce the physical properties of electromagnetics leading to the resistor, the capacitor and the inductor. This will be done through theoretical analysis of electromagnetic concepts.

Electrical Engineering II: Develop an understanding of electromagnetic fields and their application to the solution of engineering problems. The emphasis during the course will be on the application of digital and analogue electronic circuit components concepts. The overall course is designed to introduce the impedance and admittance concept of load model representations

Linear Algebra: This module provides an introduction to the theory and analysis of linear algebra including: systems of linear equation, matrix algebra, linear
Transformations, determinants, vector spaces, eigenvalues and eigenvectors, diagonalization and orthogonality

Thermo-Fluid Sciences I: Understand the properties of gases and the laws of thermodynamics. Know the different forms of energy and understand what is meant by work, temperature and heat. Ability to perform mass & energy analysis on control volumes. Understanding of the 2nd law of thermodynamics and the concept of entropy. Ability to analyse the basic thermodynamic cycles.

Engineering Management: The structure and principal functions of engineering companies in terms of their activities and procedures are outlined in this module. This includes functions spanning research, design/development through to manufacturing and sales. Performance, safety, reliability and systematic design are discussed. The economics of engineering companies include supply-demand and cost controls are incorporated. Technology, innovation and product development are considered. The companies' potential and growth management plans, risk and profitability profile are assessed. Manufacturing and service operation are detailed and the use of integrated, computer control machining and software engineering is advocated.

Human Factors and Safety Engineering: This module covers human performance in human-machine systems, including information processing, display and control design, workplace design, and environmental effects on worker performance.

Machine Element Design: This module is intended for engineering students beginning the study of mechanical engineering design. This will cover the basic of specific machine components design, including the design process, mechanics and materials selection, failure prevention under static and variable loading for principal types of mechanical elements. A practical approach is emphasized throughout the course where concise design problems and examples illustrating the ability of the students for design calculation, decision-making process and final engineering design presentation

Advanced Applied Maths: To enhance and extend previous mathematical knowledge and the understanding of the principles supporting engineering themes and to develop concepts facilitating analytical solutions and application of advanced techniques for treating engineering problems.

Applied Numerical Methods for Engineers: This module is designed to introduce students to fundamentals of numerical analysis as well as engineering common uses of numerical analysis. This includes: round off and truncation errors, root finding, solution of matrices, least-squares regression, interpolation, differentiation and integration. The focus will be on using MATLAB for numerical calculations.

Electrical Machines: This module introduces students to the fundamental concepts and principles of operation of various types of electrical machines. To equip the students with basic experimental and modelling skills for handling problems associated with electrical machines. To develop an appreciation of design and operational problems in the electrical power industry.

Electrical Power Devices: The functioning of modern industrial society depends heavily upon the ready availability of energy in a form that can be transported cheaply and converted easily into other forms. The processes by which electricity is generated and the means by which it is reconverted into mechanical energy for industrial uses are therefore of fundamental importance. In this module the student will be introduce to the principal types of electro-mechanical energy conversion devices (induction motors, synchronous machine) as well as the transmission and distribution of a three-phase power supply.

Introduction to Digital Electronics: Understand gates, RAM, ROM, shift counters IC's and latches. Use Boolean algebra and appreciate logic functions. Consider voltage thresholds, noise, resistance and delays. Become familiar with number codes, two's complement. Using code, ASCII and the conversion from binary, hexadecimal, octal and decimal counting. Comprehend logic circuit operation for addition, negalion and subtraction of binary integers, sequential logic, info. processing and microcomputers.

Machine Theory and Dynamics: To provide an understanding of the application of simple mathematical models and vibration problems in engineering systems. Describe mathematically the behaviour of simple mechanical vibrating systems. Determine the response of these systems to transient and harmonic excitation. Analyse systems with more than one degree of freedom and provide practical experience of vibration measurement.

Sensors and Instrumentation: The need for existing and new types of sensors is critical. This is due to the emergence of increasingly complex technologies, health and security concerns and of a burgeoning world population. Depending on their application, the design, fabrication, testing, and use of sensors, all require technical and nontechnical expertise. This module examines the theoretical foundations and practical applications of electronic, electrochemical, piezoelectric, fibre optic, thermal, and magnetic sensors and their use in the modern era.

Thermo-Fluid Sciences II: Fundamental concepts; basic principles of fluid statics and dynamics; conservation laws of mass, momentum, and energy developed in the context of the control volume formulation; introduction

to viscous flow: boundary layer, laminar and turbulent. Steady incompressible flow in pipes including: friction and fitting losses, Hydraulic & Energy grade lines, and system operating point.

Thermo-Fluid Sciences III: This module aims to give an understanding of the fundamentals of heat and mass transfer processes in engineering systems. The lectures will build on the basic principles learned in Thermodynamic topics. In mass transfer, basic principles are introduced practical problems are analysed. Finally examples of practical heat transfer problems will be addressed.

Electromechanical Design: The students will be introduced to the concept of electro-mechanical design processes from a number of view points, including design theory, team working, risk analysis and visualisation. To enable the student to become acquainted with the basic principles of design, and the component elements of design processes

Maintenance and System Monitoring: This module introduces students to the topic of maintenance including: definition, scope, purpose, levels, types, planning, monitoring and diagnostics techniques. The student is to become aware of the significance of maintenance in insuring safe, economical and uninterrupted operations of a range of systems expected to be encountered during their career

Systems and Control Engineering: The aims of the course are to introduce the use of feedback control systems. Introduce analysis techniques for linear systems which are used in control of engineering systems. Develop and interpret block diagrams and transfer functions for simple systems. Relate the time response of a system to its transfer function and/or its poles. Understand the term 'stability', its definition, and its relation to the poles of a system. Understand the term 'frequency response' (or 'harmonic response'), and its relation to the transfer function of a system. Introduce the specification, analysis and design of feedback control systems by using graphical methods and techniques.

Digital Electronics: To introduce students to the design and operation of digital logic systems including combinational and sequential logic circuits. To illustrate the applications of these circuits in digital subsystems and systems and to appreciate the advantages of the alternative methods of implementation.

Digital Signal Processing: To introduce students to the fundamentals of signal processing and provide illustrations of practical applications. On successful completion of this module, students will have demonstrated the ability to explain the sampling theorem and appreciate the implications of aliasing distortion. Use the DFT and its fast implementation in the form of the FFT for spectral analysis.

Energy Conservation and Management: This module is designed to highlight the different ways energy is used in a range of applications. The student will learn how to be able to audit a site and assess the energy consumption of the systems. The audit will enable the proposition of one or more energy saving strategies. Each strategy is to be assessed based on its technical, practical and economical features to determine the energy saving potential and associated financial costs and savings.

Engineering Systems and Services: This module is designed to introduce students to a range of mechanical and electrical systems used to provide a services for different built environments. This covers water supply, plumbing, lighting, fire safety, communications & security, vertical transport as well as the potential noise and vibration that could results from such systems.

HVAC Systems and Analysis: This module is designed to introduce the student to the fundamentals of HVAC considerations, analysis, calculations and systems. This includes types and functions of major HVAC systems, Psychrometric chart, Indoor comfort conditions, Heat transmission modes in buildings, Solar radiation, Heating and Cooling load calculations and Air distribution systems. The students will also practice the use of simple energy modelling software (Ecotect) to optain heating and cooling load estimates.

Power Generation: The power generation plant is a facility that transforms various types of energy into electricity or heat for some useful purpose. Most power generation plant use steam as an energy source. The steam is essential for driving equipment such as pumps, compressors, powering ships and many other industrial and domestic applications. The course aims to develop an understanding of basic knowledge of steam power generation plants.

Power Systems, Plants and Protection: To introduce the students to fundamental concepts of power system stability and protection. To familiarize the students with the construction of overhead lines and underground

cables and give them an appreciation of the mutidisciplinary nature of their design. To introduce the concept of FACTS, and familiarize them with the basic design and principle of operation of HVDC systems.

Refrigeration Plants: This module is designed to introduce the student to the refrigerant potential of HVAC systems. This includes the refrigerants, compressors, condensers, evaporators, axillaries, controls, constant volume and VAV air distribution systems, district cooling, thermal storage and cooling using co- & tri-generation integrated cooling systems.

Renewable Energy: This module introduces a range of renewable energy resources including: Solar, Wind, Hydropower, Geothermal and Biomass. The students will learn the main working principles of such sources, their technical requirements, configurations as well as practical requirements for harnessing the power sources. Student will use simple calculations to estimate the energy production potential of renewable energy sources.

State Space and Multivariable Systems: This module is designed to introduce state space and multivariable techniques, computer simulation and analysis methods.

Turbo-Machinery: The course aims to develop an understanding of axial and radial flow turbo-machinery. It develops simple analytical and computational methods to solve problems of such gas flows and their application to gas turbines, compressors and fans. It aims to build up physical understanding through a range of turbo-machinery applications.

Entrepreneurship: Engineering students will explore the dynamics of turning an innovative idea into a commercial venture in an increasingly global economy. Creating a business plan originating in an international setting will: challenge students to innovate; manage risk, stress and failure; confront ethical problems; question cultural assumptions; and closely simulate the realities of life as an entrepreneur.

Final Year Project: Selection and completion of a team project comprising a typical problem which E-M Engineering graduates must solve in their fields of employment, representative of those encountered in professional practice. Projects typically involve system design, modelling, analysis and testing. Project method includes planning, scheduling, and appropriate research methodology. Formulation of project outline, literature review, project activity scheduling and regular progress reviews by the instructor are required. The capstone electro-mechanical engineering project will be carried out over 3 terms. The 2nd and 3rd phases involve research methodology: problem statement, method, results, analysis, synthesis, project design, construction (when feasible), and evaluation/conclusions. Project results are presented in a formal written report suitable for reference library and formal oral presentations

14.4 Bachelor of Science (BSc) Computer Science

Head of Programme
Prof. Khaled Shaalan

Academic Staff
Associate Professors
Prof. Khaled Shaalan
Prof. Sherief Abdallah

Associate Professor
Dr Cornelius Ncube

The programme helps develop a thorough understanding of the theoretical and practical aspects of Computer Science. Students can specialise in either in Software Engineering or in Artificial Intelligence based on their interest. Software Engineering which is similar to Computer Science with more focus on Software. to suit their interests.

Programme Outcomes

BSc CS-SE Programme (Programme Specific Content)
Knowledge

1. Appropriately apply core knowledge of computer fundamentals to solve a range of practical problems.
2. Aware of the social, professional, ethical and legal issues involved in the use of computing systems
3. Demonstrate familiarity with a selection of the state-of-the-art, emerging computing techniques and technologies
4. Demonstrate knowledge of advanced software engineering techniques and their applications.

Skills

5. Deploy appropriate theory, practices, and tools for the specification, design, implementation, maintenance, and evaluation of computer-based systems.
6. Present and explain complex issues using well-formed arguments and information technology skills

Aspects of Competence

Autonomy and responsibility

7. Design, develop, and employ computer science techniques and technologies in solving practical problems.
8. Demonstrate effective work habits, leadership, and social responsibility

Role in context

9. Ability to learn and apply new techniques and technologies as they emerge.
10. Acquire the ability to function effectively as part of a team to accomplish a set of common goals and objectives.

Self- development

11. Analyse a problem and craft an appropriate algorithmic solution
12. Design appropriate solutions in one or more application domains using software engineering approaches
13. Adopt a professional and ethical approach to decision making and related social responsibilities.

BSc CS-AI Programme (Programme Specific Content)
Knowledge

1. Appropriately apply core knowledge of computer fundamentals to solve a range of practical problems.

2. Aware of the social, professional, ethical and legal issues involved in the use of computing systems
3. Demonstrate familiarity with a selection of the state-of-the-art, emerging computing techniques and technologies
4. Demonstrate knowledge of advanced artificial intelligence techniques and their applications.

Skills

5. Deploy appropriate theory, practices, and tools for the specification, design, implementation, maintenance, and evaluation of computer-based systems.
6. Present and explain complex issues using well-formed arguments and information technology skills

Aspects of Competence
Autonomy and responsibility

7. Design, develop, and employ computer science techniques and technologies in solving practical problems.
8. Demonstrate effective work habits, leadership, and social responsibility

Role in context

9. Ability to learn and apply new techniques and technologies as they emerge.
10. Acquire the ability to function effectively as part of a team to accomplish a set of common goals and objectives

Self- development

11. Design appropriate solutions in one or more application domains using artificial intelligence approaches
12. Analyse a problem and craft an appropriate algorithmic solution
13. Adopt a professional and ethical approach to decision making and related social responsibilities

Programme Structure

	Term (1)			Term (2)			Term (3)			
Yr	**Pre-requisites**	**Module Name**	**Cr**	**Pre-requisites**	**Module Name**	**Cr**	**Pre-requisites**	**Module Name**	**Cr**	**Total Cr**
1	None	Introduction to Computers	10	None	Introduction to Programming	10	Introduction to Programming	Object-Oriented Programming	**10**	
	IELTS 5.0, TOEFL 500	English 1	10	English 1; IELTS 5.0 TOEFL 500	English 2	10	None	Environment Sciences and Sustainability	**10**	
	General Mathematics[1]	Calculus I	10	None	**Elementary Linear Algebra**	10	None	Discrete Structure I	**10**	
		University Elective	10		University Elective	10		University Elective	**10**	**120**
2	Discrete Structures I	Discrete Structure II	10	None	Web technology	10	Discrete Structure II; Data Structures and Algorithms	Computer Architecture	**10**	
	CS Object-Oriented Programming CS Discrete Structure I	Data Structures and Algorithms	10	Introduction to Computers; Discrete Structure II	Database Systems	10	Data Structures and Algorithms	Introduction to Artificial Intelligence	**10**	
	Object-Oriented Programming	Introduction to Software Engineering	10	Discrete Structure 1; Data Structures and Algorithms; Introduction to Software Engineering	Software Construction	10	Introduction to Software Engineering	Human computer interface design	10	
		University Elective	10	None	Engineering Economy & Entrepreneurship	10	The student should complete 200 credit hours	System Design and Practical Project	10	**120**
3	Computer Architecture	Operating Systems	10	Operating Systems	Computer Communications and Networks	10	Introduction to Software Engineering	Software Engineering with Objects and Components	10	
	None	Professional Issues	10	Web Technology	Web Development	10	Introduction to Software Engineering	Software Engineering Approach to Human Computer Interaction	10	
	None	Professional Software Engineering Practice	10	Software Construction	Software Design and Architecture	10	Introduction to Software Engineering	Software Project Management	10	
	General Mathematics[2]	Introduction to Statistics	**10**		**Electives**	**10**		**Electives**	**10**	**120**
	Summer between year 3 & year 4							Internship		**10**

[1] Only for students who were required to take General Mathematics
[2] Only for students who were required to take General Mathematics

4	Introduction to Software Engineering	Software Testing	**10**	Software Quality Assurance	**Software Process and Management**	**10**	**Electives**	**10**	
	Introduction to Software Engineering	Software Requirements Analysis	**10**		**Electives**	**10**			
	Introduction to Software Engineering	Software Quality Assurance	**10**		**Electives**	**10**			
		Computer Science - Software Engineering Capstone Project						**40**	**110**

Programme Structure BSc Computer Science (Artificial Intelligence)

	Term (1)			Term (2)			Term (3)			
Yr	**Pre-requisites**	**Module Name**	**Cr**	**Pre-requisites**	**Module Name**	**Cr**	**Pre-requisites**	**Module Name**	**Cr**	**Total Cr**
1	None	Introduction to Computers	10	None	Introduction to Programming	10	Introduction to Programming	Object-Oriented Programming	**10**	
	IELTS 5.0, TOEFL 500	English 1	10	English 1; IELTS 5.0 TOEFL 500	English 2	10	None	Environment Sciences and Sustainability	**10**	
	General Mathematics[1]	Calculus I	10	None	Elementary Linear Algebra	10	None	Discrete Structure I	**10**	
		University Elective	10		University Elective	10		University Elective	**10**	**120**
2	Discrete Structures I	Discrete Structure II	10	None	Web technology	10	Discrete Structure II; Data Structures and Algorithms	Computer Architecture	**10**	
	CS Object-Oriented Programming CS Discrete Structure I	Data Structures and Algorithms	10	Introduction to Computers; Discrete Structure II	Database Systems	10	Data Structures and Algorithms	Introduction to Artificial Intelligence	**10**	
	Object-Oriented Programming	Introduction to Software Engineering	10	Discrete Structure 1; Data Structures and Algorithms; Introduction to Software Engineering	Software Construction	10	Introduction to Software Engineering	Human computer interface design	**10**	
		University Elective	10	None	Engineering Economy & Entrepreneurship	10	The student should complete 200 credit hours	System Design and Practical Project	**10**	**120**
3	Computer Architecture	Operating Systems	10	Operating Systems	Computer Communications and Networks	10	Introduction to Artificial Intelligence	Introduction to processing natural languages	**10**	
	None	Professional Issues	10	Web Technology	Web Development	10	Introduction to Artificial Intelligence	Introduction to Machine Learning	**10**	
	None	Professional Software Engineering Practice	10	Software Construction	Software Design and Architecture	10	Introduction to Artificial Intelligence	Agent Based Systems	**10**	
	General Mathematics[2]	Introduction to Statistics	**10**		**Electives**	**10**		**Electives**	10	**120**
	Summer between year 3 & year 4 - Internship									**10**
4	Introduction to machine learning	Machine Learning & Pattern Recognition	10	Introduction to Artificial Intelligence	Introduction to Vision and Robotics	**10**		**Electives**	**10**	
	Introduction to Natural Language Processing	Applied Natural Language Processing	10		Electives	**10**				
	CS -Introduction to Artificial Intelligence	Knowledge Engineering and Management	10		Electives	**10**				
		Computer Science - AI Capstone Project							**40**	**110**

[1] Only for students who were required to take General Mathematics
[2] Only for students who were required to take General Mathematics

Module Description

General Education module description are available in Section 12.

Elementary Linear Algebra: This module provides an introduction to the theory and analysis of linear algebra including: systems of linear equation, matrix algebra, linear transformations, determinants, vector spaces, eigenvalues and eigenvectors, diagonalization and orthogonality.

Introduction to Programming: The course teaches the basics of programming. Students will learn about fundamental programming concepts such as control conditions, loops, and recursion. Fundamental data structures will also be studied such as Arrays and Strings. The course has extensive lab sessions to ensure students get hand-on experience of the taught material.

Discrete Structures I: Introduces the foundations of discrete mathematics as they apply to computer science, focusing on providing a solid theoretical foundation for further work. Topics include functions, relations, sets, simple proof techniques, Boolean algebra, propositional logic, digital logic, elementary number theory, and the fundamentals of counting

Object Oriented Programming: The course teaches the basics of object-oriented programming. Students will learn about fundamental programming concepts such as recursion, abstraction, higher-order functions and data types, whilst at the same time emphasizing the practical use of such constructs by applying them. Students will also learn the general principles of object oriented frameworks

Data Structures and Algorithms: This course introduces the fundamental concepts of data structures and the algorithms that proceed from them. Topics include recursion, the underlying philosophy of object-oriented programming, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), the basics of algorithmic analysis, and an introduction to the principles of language translation

Discrete Structures II: Continues the discussion of discrete mathematics introduced in Discrete Structures I. Topics in the second course include predicate logic, recurrence relations, graphs, trees, matrices, computational complexity, elementary computability, and discrete probability

Introduction to Software Engineering: Principles of software engineering: Requirements, design and testing. Review of principles of object orientation. Object oriented analysis using UML. Frameworks and APIs. Introduction to the client-server architecture. Analysis, design and programming of simple servers and clients. Introduction to user interface technology.

Database Systems: This course is an introduction to the principles underlying the design and implementation of databases and database management systems. It will cover the languages that have been developed for relational databases, their implementation and optimisation. It will also introduce some recent developments in databases including object-oriented, object-relational systems, semistructured data. The bare essentials of transaction processing will also be covered.

Engineering Economy& Entrepreneurship: Methods of economic analysis in engineering, including time value of money, equivalence, economic measures of worth, selection rules for alternatives, income taxes and equipment depreciation, inflation, and uncertainty.

Software Construction: General principles and techniques for disciplined low-level software design. BNF and basic theory of grammars and parsing. Use of parser generators. Basics of language and protocol design. Formal languages. State-transition and table-based software design. Formal methods for software construction. Techniques for handling concurrency and inter-process communication. Techniques for designing numerical software. Tools for model-driven construction. Introduction to Middleware. Hot-spot analysis and performance tuning

Web Technology: This course covers mark-up languages and methods for manipulating marked-up content. In particular, the students will learn techniques for developing web pages using XHTML and Cascading Style Sheets (CSS).

Computer Architecture: Introduces students to the organization and architecture of computer systems, beginning with the standard von Neumann model and then moving forward to more recent architectural concepts.

Introduction to Artificial Intelligence: This course will introduce the basic principles in artificial intelligence research. It will cover simple representation schemes, problem solving paradigms, constraint propagation, and search strategies. Areas of application such as knowledge representation, natural language processing, expert systems, vision and robotics will be explored.

Human-Computer Interface Design: The design and implementation of efficient, effective and user friendly computing systems depends upon understanding both the technology and its users. Only then can designers be confident that computer systems will be properly matched to the skills, knowledge and needs of their users. The study of Human-Computer Interaction (HCI) seeks to combine perspectives and methods of enquiry drawn from disciplines such as Psychology and Sociology with the tools, techniques and technologies of Computer Science to create an approach to design which is both relevant and practical

System Design and Practical Project: The System Design Project is intended to give students practical experience of (a) building a large scale system (b) working as members of a team. The project involves applying and combining material from several courses to complete a complex design and implementation task. At the end of course each group demonstrates its implemented system and gives a formal presentation to an audience of the students, supervisors, and visitors from industry.

Operating Systems: This course provides an introduction to the design and implementation of general purpose multi-tasking operating systems. It concentrates on the kernel aspects of such systems with the emphasis being on concepts which lead to practical implementations. Throughout the course reference is made to a number of significant actual operating systems (Linux, Windows variants etc.) to illustrate real implementations.

Professional Issues: There are many commercial, engineering and professional issues, complementary to the necessary scientific knowledge and technical skills, that impinge on the work of the computing professional. The Professional Issues course aims to provide a general awareness of these issues and to cover some of them in depth. The course will mostly involve directed reading but there will be some lectures from members of staff and visitors.

Professional Software Engineering Practice: History of computing and software engineering. Principles of professional software engineering practice and ethics. Societal and environmental obligations of the software engineer. Role of professional organizations. Intellectual property and other laws relevant to software engineering practice.

Computer Communications and Networks: This is an introductory course on Computer Communications and Networks, focusing on fundamental concepts, principles and techniques. The course will introduce basic networking concepts, including: protocol, network architecture, reference models, layering, service, interface, multiplexing, switching and standards. An overview of digital communication from the perspective of computer networking will also be provided. Topics covered in this course include: Internet (TCP/IP) architecture and protocols, network applications, congestion/flow/error control, routing and internetworking, data link protocols, error detection and correction, channel allocation and multiple access protocols, communication media and selected topics in wireless and mobile networks.

CS Software Design and Architecture: An in-depth look at software design. Continuation of the study of design patterns, frameworks, and architectures. Survey of current middleware architectures. Design of distributed systems using middleware. Component based design. Measurement theory and appropriate use of metrics in design. Designing for qualities such as performance, safety, security, reusability, reliability, etc. Measuring internal qualities and complexity of software. Evaluation and evolution of designs. Basics of software evolution, reengineering, and reverse engineering.

Web Development: The module aims to cover the concepts, relevance and practical implementation of: use of open source web frameworks to develop complex, data driven, web applications; and of distributed web solutions, focusing primarily on the development of XML web services via Visual Studio.NET. The module also aims to discuss issues, core technologies and applications whilst further developing students' problem solving, coding and investigative skills.

Agent Based Systems : Agent technology has emerged as a new area within Artificial Intelligence in the last two decades, exploring systems in which it is assumed that the computational components are autonomous, and interact with each other in a common environment. The aim of this course is to provide a comprehensive introduction to agents and multiagent systems. It covers a broad range of topics including agent architectures, agent interaction and communication, and game-theoretic methods and models of distributed rational decision making.

Introduction to Natural Language Processing: This module introduces students to goals, methods and applications of language processing

Introduction to Machine Learning: Since the early days of AI, researchers have been interested in making computers learn, rather than simply programming them to do tasks. This is the field of machine learning. The main area that will be discussed is supervised learning, which is concerned with learning to predict an output, given inputs. A second area of study is unsupervised learning, where we wish to discover the structure in a set of patterns; there is no output "teacher signal". The primary aim of the course is to provide the student with a set of practical tools that can be applied to solve real-world problems in machine learning, coupled with an appropriate, principled approach to formulating a solution.

Software Engineering with Objects and Components: This course provides an introduction to the design and implementation of software systems using object oriented techniques. The techniques we consider are oriented to creating component based designs. The course will review basic object oriented techniques and how they support the creation of component based designs. We also consider the high level modelling of systems as a means of supporting the Software Engineering process. Here we study the Unified Modelling Language (UML), which provides programming language independent notations for design.

Software Engineering Approach to Human Computer Interaction: Psychological principles of human-computer interaction. Evaluation of user interfaces. Usability engineering. Task analysis, user-centered design, and prototyping. Conceptual models and metaphors. Software design rationale. Design of windows, menus, and commands. Voice and natural language I/O. Response time and feedback. Color, icons, and sound. Internationalization and localization. User interface architectures and APIs. Case studies and project.

Software Project Management: Project planning, cost estimation, and scheduling. Project management tools. Factors influencing productivity and success. Productivity metrics. Analysis of options and risks. Planning for change. Management of expectations. Release and configuration management. Software process standards and process implementation. Software contracts and intellectual property. Approaches to maintenance and long-term software development. Case studies of real industrial projects

Applied Natural Language Processing : The aim of this course is to explain basic techniques of Natural Language Processing programming, with special focus on the Python programming language & NLTK and their application to processing natural language.

Knowledge Engineering and Management: The aim of this module is to teach the principles and technologies of knowledge management. The module covers the fundamental concepts in the study of knowledge and its creation, representation, dissemination, use and re-use, and management. The focus is on methods, techniques, and tools for computer support of knowledge management, knowledge acquisition, and how to apply a knowledge management system using one of the knowledge-based system tools

Machine Learning & Pattern Recognition: Both the study of Artificial Intelligence - understanding how to build learning machines - and the business of developing tools to analyse the numerous increasing data sources involves developing a systematic understanding of how we can learn from data. A principled approach to this problem is critical given the wide differences in the places these methods need to be used. This course is a foundational course for anyone pursuing machine learning, or interested in the intelligent utilisation of machine learning methods. The primary aim of the course is enable the student to think coherently and confidently about machine learning problems, and present the student with a set of practical tools that can be applied to solve real-world problems in machine learning, coupled with an appropriate, principled approach to formulating a solution. This course avoids the potential pitfalls of simply presenting a set of machine learning tools as if they were an end in themselves, but follows the basic principles of machine learning methods in showing how the different tools are developed, how they are related, how they should be deployed, and how they are used in practice. The course presents a number of methods in machine learning that are increasingly used, including Bayesian methods, and Gaussian processes. This course is identical to the level 10 version except for an additional learning outcome, and a consequential difference in assessment.

Introduction to Vision and Robotics: Robotics and Vision applies AI techniques to the problems of making devices capable of interacting with the physical world. This includes moving around in the world (mobile robotics), moving things in the world (manipulation robotics), acquiring information by direct sensing of the world (e.g. machine vision) and, importantly, closing the loop by using sensing to control movement. Applying AI in this context poses certain problems, and sets certain limitations, which have important effects on the general software

and hardware architectures. For example, a robot with legs must be able to correct detected imbalances before it falls over, and a robot which has to look left and right before crossing the road must be able to identify approaching hazards before it gets run over. These constraints become much more serious if the robot is required to carry both its own power supply and its own brain along with it. This module introduces the basic concepts and methods in these areas, and serves as an introduction to the more advanced robotics and vision modules.

Software Quality Assurance: To introduce the basic concepts of quality assurance (QA) and existing standards by looking at the nature of software systems, the underlying technologies, the architecture, and the applications of QA onto software systems.

Software Requirements Analysis: Domain engineering. Techniques for discovering and eliciting requirements. Languages and models for representing requirements. Analysis and validation techniques, including need, goal, and use case analysis. Requirements in the context of system engineering. Specifying and measuring external qualities: performance, reliability, availability, safety, security, etc. Specifying and analyzing requirements for various types of systems: embedded systems, consumer systems, web-based systems, business systems, systems for scientists and other engineers. Resolving feature interactions. Requirements documentation standards. Traceability. Human factors. Requirements in the context of agile processes. Requirements management: Handling requirements changes.

Software Testing: This course is intended to provide the students with an overall view over Software Engineering as an engineering discipline and with insight into the processes of software development. The course highlights a number of important Software Engineering topics, mainly: Software Life-cycle Models; Software Requirements elicitation; Architectural design; Software Integration and Testing; Software evolution; Software Quality; Project Management

Software Process and Management: Software processes: standards, implementation, and assurance. Project management with a focus on requirements management and long-term evolution: Eliciting and prioritizing requirements, cost estimation, planning and tracking projects, risk analysis, project control, change management.

3D Game Programming: This module aims to take a student with a background in programming to an advanced level of understanding and experience of modern interactive 3D game engine development. On completing the module, students will have developed a fully interactive and graphically realistic 3D game application at a low level using Visual Studio. Starting with an appreciation of the historical aspects of interactive technology then moving onto 3D modelling theory and environments. The next stage will be to introduce interactive device programming techniques, network programming and state-of-the-art software tools. Finally, in order to prepare students for further work or employment in this area, students will design, build and test a complex 3D graphics application using an off-the-shelf game engine and the Visual Studio programming environment.

Advanced Database Systems: This course is designed to cover advanced database system design and implementation. It quickly goes through relational databases and then moves on to advanced topics in modern database systems, including object-oriented databases, XML databases, distributed databases, and on-line analytical processing. The course also discusses various data description and query languages, database design, and query processing and optimization, and also looks at distributed object model, and data mining and data warehouses. Students undertake a semester project that includes the design and implementation of a database system. This database project includes the use of object-oriented features and XML.

Artificial Intelligence Programming: The aim of this module is to explain basic techniques of AI programming, with special focus on the Prolog programming language and AI applications. Students will explore this through problem-solving paradigms, logic and theorem proving, search and control methods, and learning.

Decision support systems: This course covers the following topics: Introduction to decision support systems (DSS); DSS components; Decision making and DSS; DSS software and hardware; developing DSS; DSS models; types of DSS; group DSS; executive information systems; data mining; artificial intelligence and expert systems

Document Analysis and Semantic Web: This module aims to give an insight to the process of analysing documents (scanned and electronic) to extract the information contained in them. The topics covered include: principles of labelling and analysis of web-accessible data, document engineering concepts and methodologies, and document representation and use in different contexts.

Information Security: This module gives students a solid understanding of the basic technologies for managing security (confidentiality, integrity and availability) of information systems, their roles and relevance, and how they are used.

Intelligent Autonomous Robotics: The aims of this course are to introduce the fundamental problems of producing real world intelligent behaviour in robots, some of the different kinds of information processing techniques and control architectures that have been developed, and how biological systems can be modelled on robots and contribute to their design. The course is structured around a practical-based programme involving the construction of a series of small mobile LEGO vehicles of increasing sensorimotor sophistication. We will cover related sensing and control ideas, approaches, and organisational architectures. We consider some alternative types of mechanism suggested for the production of desired intelligent behaviour by both engineers (simple control theory) and biologists (e.g. muscle control, biomimetic robotics, learning).

Machine Translation: Machine Translation deals with computers translating human languages (for example, from Arabic to English). The field is now sufficiently mature that Google use it to allow millions of people to translate Web Documents each day. This course deals with all aspects of designing, building and evaluating a range of state-of-the-art translation systems. The systems covered are largely statistical and include: word-based, phrase-based, syntax-based and discriminative models. As well as exploring these systems, the course will cover practical aspects such as using very large training sets, evaluation and the open problem of whether linguistics can be useful for translation.

Natural Language Generation: An introduction to the theory and practice of computational approaches to natural language generation. The course will cover common approaches to content selection and organization, sentence planning, and realisation. The course will cover both symbolic approaches to generation, as well as more recent statistical and trainable techniques. It also aims to provide: An understanding of key aspects of human language production; An understanding of evaluation methods used in this field; Exposure to techniques and tools used to develop practical systems that can communicate with users; Insight into open research problems in applications of natural language generation, e.g., summarization, paraphrase, dialogue, multimodal discourse.

Selected Topics in Computer Science: This module provides students with an opportunity to gain an in depth understanding of the theories and issues on a selected topic. The course should cover new technologies that are not offered in the current modules descriptions (e.g Energy Aware Computing, Bioinformatics, Embedded Software, Adaptive Learning Environments, etc.).

Blockchains and Distributed Ledgers: Blockchain technology and distributed ledgers have been hailed as a turning point in scaling information technology services at a global level. Although the digital currency Bitcoin is the best-known Blockchain application today, the technology is set to play a much broader role in cyber security innovation. This course is an introduction to the design and analysis of blockchain systems and distributed ledgers.

E-Commerce: In this module students study topics related to creating a business on the web, with particular focus on e-commerce. Students will study the IT issues raised by electronic business and commerce. Techniques and technologies available for designing and implementing e-business and e-commerce applications will be discussed. Students will have a deep understanding of internet-based tools and services for designing e-Business solutions.

Text Technologies for Data Science: The course deals with retrieval technologies behind search engines, such as Google. The course will aim to strike a balance between theoretical and system-related aspects of the field. The course will cover:

1. Theoretical aspects, including properties of text, queries, relevance, major retrieval models and evaluation;
2. System-related aspects, including crawlers, text processing, index construction and retrieval algorithms

Capstone Project: This is a major project and is intended to allow students to demonstrate their ability to organise and carry out a substantial piece of work. The project involves both the application of skills learnt in the past and the acquisition of new skills. Typical areas of activity will be: gathering and understanding background information; solving conceptual problems; design; implementation; experimentation and evaluation; writing up.
The project is conducted individually by the student under the supervision of a member of teaching staff. The project specification is usually provided by a member of staff, but students are also free to specify their own project. All project specifications must be approved by the Project Coordinator.

Section 15 Faculty of Business and Law

Degrees Offered
BSc in Business Management
BSc in Accounting and Finance

Dean
Prof Aymen Masadeh

Academic Staff

Professor
Prof Stephen Wilkins
Prof Husam-Aldin Al-Malkawi

Associate Professor
Dr Abba Kolo
Dr. Sulafa Badi
Dr. Bader Yousef Bader Obeidat

Assistant Professor
Dr. Omar Alhyari
Dr Amer Alaya
Dr Farzana Asad Mir
Dr Maria Papadaki

15.1 Bachelor of Science (BSc) in Business Management

Head of Programme
Prof Husam-Aldin Al-Malkawi

Professor
Prof Stephen Wilkins
Prof Husam-Aldin Al-Malkawi

Associate Professor
Dr Abba Kolo
Dr. Sulafa Badi
Dr. Abdelmounaim Lahrech

Assistant Professor
Dr. Omar Alhyari
Dr Amer Alaya
Dr Farzana Asad Mir
Dr Maria Papadaki

BUiD's BSc in Business Management will help students gain an excellent technical grounding for a career in business or public sector management, or for running their own business. The programme covers all the main areas of business including operations management, finance, marketing and human resource management. Students start with a semi-common first-year, which provides a solid foundation, before taking more specialised programme-specific courses in the later years. There is a focus on innovation and entrepreneurship throughout the programme.

Programme Outcomes

Knowledge

1. Demonstrate knowledge and understanding of organisations (internal aspects, functions and processes including diverse nature, purposes, structures, governance, operations and management)
2. Understand and analyse the external environment in which organisations operate

Skills

3. Analyse business situations and problems utilising conceptual frameworks drawn from management theories, economics, business law, accounting, finance, marketing and quantitative methods
4. Identify and invoke mechanisms for the stimulation of creative thinking in organisational setting
5. Demonstrate effective problem-solving and decision-making skills using appropriate qualitative and quantitative methods

Aspects of Competence

Autonomy And Responsibility

6. Develop business plans and management strategies necessary for survival, development and growth of the organisation

Role in context

7. Inculcate effective communication skills; promote team-building and team work

Self- development

8. Employ current information technology effectively in order to solve business problems and adapt new technologies as required

Programme Structure

Year	Term 1		Term 2		Term 3		Total
	Module name	**# CR**	**Module name**	**# CR**	**Module name**	**# CR**	
1	General Mathematics	0	Calculus 1	10	Basic Accounting	10	
	English 1	10	English 2	10	Business Statistics	10	
	Introduction to Computers	10	Principles of Management	10	Principles of Marketing	10	
	Personal and Professional Skills	10	Introduction to Statistics	10	Principles of Microeconomics	10	
	Introduction to Business Enterprise	10					120

Year	Term 1		Term 2		Term 3		Total
	Module name	# CR	Module name	# CR	Module name	# CR	
2	Principles of Macroeconomics	10	Introduction to Management Information System	10	Financial Analysis and reporting	10	
	Introduction to Finance	10	Understanding Organisations	10	Management Accounting	10	
	Analytical Techniques A	10	Analytical Techniques B	10	Managing Organisations	10	
	University Elective	10	University Elective	10	University Elective	10	120
3	Introduction to Innovation and Leadership	10	Financial Risk Management	10	Small Business Finance	10	
	Business Communication	10	Operations and Supply Chain Management	10	Business Ethics	10	
	Financial Markets and Institutions	10	Corporate Financial Management	10	Company Accounting	10	
	Project Management	10	Information Technology Management	10	Human Resource Management	10	120
4	Market Research	10	Entrepreneurship	10	International Business Management	10	
	Business Law	10	International HRM	10	Strategic Management	10	
	Organisational Theory	10	Consumer Behaviour	10	Special Topics in Management	10	
	Public Sector Accounting	10	Ethics and Islamic Values in Business	10	International Corporate Governance	10	120

Module Description

General Education module description are available in Section 12.

Introduction to Business Enterprise: To provide students with a working knowledge of fundamental management and enterprise concepts applicable to a wide range of careers

Business Statistics: Statistics is the science of reasoning from data. Data and statistical thinking abound in everyday life and in almost all academic fields. This module will provide understanding of basic statistical concepts of inferential statistics. Students, in this module, will gain knowledge and skills of some important tools of statistical analysis.

Basic Accounting: This module introduces to the students the required basic knowledge of the principles and practices of Accounting. By the end of the module, the student will be able to: explain the functions of financial accounting, describe the regulatory framework governing financial accounting, principles of double entry bookkeeping, assess the nature of internal control in accounting, prepare bank reconciliations, control accounts and the entries for the correction of errors, prepare basic financial statements of sole traders and limited companies and illustrate accounting adjustments.

Principles of Marketing: This is a core module that aims to introduce the main marketing principles, theory and practice as it applies in consumer, industrial and service organisations. The module's purpose is to explore the manner in which firms can gain competitive advantage by adopting a consumer orientation.

Principles to Microeconomics: The aim of the module is to develop the student's knowledge and understanding of the concepts of microeconomics and to apply principles and models to real world cases and situations. In addition, by the end of the module students will have an appreciation of the relevance of economics for business. The module facilitates the application of basic economic concepts, principles and models to understand and

analyse the business and economic environment in which we live and work, and to appreciate the impacts of economic decisions and events.

Principles of Management: This module introduces students to the nature and the structure of business firms and the principles of organization. The course defines, explains and discusses the management functions, namely, planning, organizing, leading and controlling. Leadership, ethics, motivation, culture and organization structure will also be explored.

Personal & Professional Skills: The module will help students to develop and refine skills and inter-personal skills necessary for successful study and assessment in higher education, and subsequent employability. Students will be able to focus on particular skills areas which are relevant to their own needs and targets, and to their degree programme.

Analytical Techniques A: Students, in this module, will gain knowledge and skills of operations research based applied mathematical tools. This course will focus on developing the understanding of mathematical translation and solution of business problems using linear programming models

Introduction to Finance: The aim of the module is to develop the student's abilities to analyse and explain the fundamental financial theories and goals of financial management; identify the agency problem and ways to resolve it; explain the functions of financial markets and the modern financial instruments in use; evaluate investment decisions using discounted cash flow methods under the assumptions of certainty and to examine the role of risk and uncertainty in capital budgeting

Principles of Macroeconomics: The aim of the module is to develop the student's ability to analyse and explain the functioning of an economy at the macro level. The module focuses on examination of the theories of exchange rate determination, the impact of monetary policy on exchange rate. It encourages students to discuss and explain the importance of interest rate parity theorems and the role of macroeconomic parameters in functioning of the international capital flow. It also addresses the mechanism of the determination of aggregate output and employment, interest rates and monetary transmission.

Analytical Techniques B: The aim of the module is to develop the student's knowledge of mathematics in solving some of the relevant business problems. The module describes the tools of financial mathematics such as the time value of money, compound interest, and internal rate of return. Besides that the project planning tools, inventory models and forecasting methods are also be included.

Introduction to Management Information Systems: This module aims to introduce students to the diversity and use of management information systems in the context of the broader business environment.

Understanding Organisations: This module examines a variety of approaches towards analysing work organizations. The module focuses on individual and group processes within organizations addressing issues such as perception, motivation, group and team structure. It will also explore the nature of organizations, giving an overview of traditional approaches to designing organizations including scientific management, classical theory, contingency theory, and socio-technical systems, and concludes with new contemporary approaches to organizational structures, culture and leadership.

Financial Analysis and Reporting: The aim of this module is to develop the knowledge and skills necessary to provide financial information for the purpose of decision-making. This financial information is provided to external decision-makers primarily by means of general-purpose statements of operating results, financial position, and cash flow. The module covers the different valuation techniques pertaining to credit risk assessment and cash flow analysis as well. It also develops students' ability to prepare different reports for tax and other regulatory compliance-related purposes as well as for the owners of the business i.e., the equity shareholders, lenders, equity analysts and investment bankers.

Management Accounting: This module aims to introduce students to fundamental concepts and practices of management accounting. The module examines basic management and cost accounting concepts and explores their uses in the development of costing systems and decision making in the context of planning and controlling business enterprises.

Managing Organisations: The module considers how people behave in work organisations, how managers seek to shape human behaviour in the workplace and issues arising. This module links with important themes explored in the Principles of Management and Understanding Organisations modules, and develops further on the study of

behaviour in organisations (OB). It places principal emphasis on the individual and group aspects of organisational behaviour.

Business Communications: This course is designed to give students a comprehensive view of communication, its scope and importance in business, and the role of communication in work organisations, as well as an effective internal communications program. The various types of business communication media are covered. This course also develops an awareness of the importance of succinct written expression to modern business communication.

Financial Markets and Institutions: This module is designed to enable the students to gain an understanding of the financial markets, which include the financial institutions, instruments and services. An understanding of the structure, dimensions and the operating mechanisms of the financial markets is important as it is an emerging discipline and has wider usage in banking, insurance, forex and also in capital and money markets. This module enables students to analyse the emerging trends in financial disintermediation and financial instruments. It helps students to be aware of the regulatory framework and its role in ensuring the smooth functioning of the financial markets.

Introduction to Innovation and Leadership: This module introduces students to the concept of innovation and leadership. The module provides students with basic knowledge and understanding of the role of leadership in organising successful innovation.

Project Management: Project management is an interdisciplinary subject area with wide industrial and commercial application. The skills to manage projects successfully are required by more and more employers. This module develops a practical understanding of projects and develops ability to plan and manage a small to medium-sized project to its successful conclusion.

Corporate Financial Management: The aim of the module is to enable the students to demonstrate a thorough understanding of the investment appraisal techniques within the framework of overall capital budgeting. By the end of the module, students will be able to explain the advantages and disadvantages of the discounted cash flow techniques; describe the relationship between portfolio theory and efficient markets, and the capital-asset pricing model (CAPM); estimate the cost of equity, cost of debt and overall weighted average cost of capital for companies and critically appraise the important models proposed to explain corporate capital structure and dividend policies and practices.

Financial Risk Management: This module introduces the sources of financial risk together with the methods used to measure it. Managing financial risk is a key activity for firms and a range of different approaches is outlined. The function of financial risk management is to control the effects of uncertain and generally adverse external developments (or events) on firms' activities and projects. Financial risk management is a more specific activity which seeks to limit the effects of changes in financial variables such as interest rates, currencies and commodity prices. After pursuing this module, students should be able to understand: what financial risk management is designed to achieve; the difference between uncertainty and risk; the multidimensionality of risk; how different attitudes towards risk lead to different decisions; the basic approaches used to manage risks; the basic nature of the financial risks being faced by the firm; the three key steps used in risk management: risk awareness, risk measurement and risk adjustment.

Information Technology Management: The purpose of this module is to expand the student's management competencies by examining how Information Technology can be used as a strategic asset to mold competitive strategies and to change organisational processes.

Operations and Supply Chain Management: The aim of this module is to provide management and analytical concepts and tools for the management of operations in relation to supply chain management. Decision-making regarding operational issues is one of the most common tasks within organizations. This module will enhance students' ability to perform the analyses necessary to understand the management issues in order to make good operational and supply chain management decisions. Coverage will include efficient planning of production, process analysis, production planning and line balancing and sequencing, inventory management, supply chain management, quality control and assurance, forecasting and maintenance management. The introduction of concepts via cases will be used whenever appropriate.

Business Ethics: The main aim of this module is to enable students to acquire a critical understanding of the foundations of business ethics; to develop a sound understanding of both individual and social aspects of business ethics; to examine the historical context of ethical practices and applications; to develop an appreciation for new or alternative perspectives of ethics, particularly in relation to issues of globalisation

Company Accounting: The aim of the module is to develop the student's knowledge and understanding of the historical, conceptual and regulatory framework of UK financial reporting. By the end of the module, the student will be able to explain and critically evaluate accounting for tangible and intangible assets and report financial performance. In addition, the module covers preparation of company accounts, in accordance with IAS/GAAP, the financial statements of groups of companies including subsidiary, associates and joint ventures. Students will develop their skills in the analysis of financial statements and demonstrate the capabilities necessary to analyse a company balance sheet based on GAAP.

Human Resource Management: This module covers the fundamental functions of Human Resource Management (HRM). It introduces students to the nature of HRM exploring a range of frameworks and debates. Students are expected to learn about the Strategic approach to HRM–understanding how it aligns with the business environment. They will become more knowledgeable and skilled in designing HRM approaches. This is achieved through lectures, discussions and group work on the HR policies and practices in key areas such as Planning, Resourcing, Performance Management, Rewards, Training and Development, Employee Relations. The module informs students on the skills required for using Human Resource Information Systems both as an employee and an HR officer.

Small Business Finance: The aim of this module is to enable students to enhance their skills in managing small businesses and medium level enterprises. It enables students to gain adequate expertise in the development of a small business plan, organizing and financing a new venture, measuring and evaluating the financial performance of the above businesses and enterprises. The course will enable students to identify the macro-economic environment, business risk, financial risk and the turnaround strategies for small and medium enterprises. Thus, it will also emphasize on financial analysis and decision-making from the perspective of institutions such as banks, venture capital firms, investment banks and individual investors providing capital to the above two enterprises.

Business Law: This module introduces students to the legal framework and business related areas of law. The module provides a general overview of the law in the business area. It will examine how the law operates to ensure coherence, fairness and efficiency in the conduct of business. Students will study the interaction between various principles of business law, current legal issues in the business world, case studies and learn how to apply legal rules to hypothetical problems

Market Research: This is a core module that aims to introduce the main marketing principles, theory and practice as it applies in consumer, industrial and service organisations. The module's purpose is to explore the manner in which firms can gain competitive advantage by adopting a consumer orientation.

Organisational Theory: The main objective of this module is to introduce the basic concepts, contributions, and limits of the main paradigms of Organizational Theories and help students to develop the capability of reflection and of understanding, designing, and managing organizations. The course emphasizes both the macro characteristics of organizations such as their structures, technology and environment, and internal processes such as political games and conflicts.

Public Sector Accounting: The aim of the module is to critically examine accounting in non-business contexts, particularly in relation to national, state and local governments. It addresses the concepts of budgetary accounting, including commitment accounting and accrual accounting. In addition, it examines the concepts of audit independence, value for money auditing. It endeavours to develop the student's knowledge and understanding of the techniques of measuring performance: in budgeting, financial accounting and reporting and auditing. The module also covers traditional budgeting, programme structures, zero-based reviews, capital budgeting, audit independence and local government finance.

Consumer Behaviour: This module aims to develop students' understanding of consumer research and its usefulness for marketing management in its application to how consumers behave. Conclusions from consumer research are not always directly accessible and are often also ambiguous in their messages; as such the course aims to reflect our current understanding of consumer behaviour drawing on disciplines such as sociology, psychology and consumer culture studies.

Entrepreneurship: This module is designed expose students to theories and examples that explain the roles of entrepreneurship and small firms in market economies and the process associated with creating a new and successful venture

Ethics and Islamic Values in Business: The main aim of this module is to enable students to acquire a critical understanding of the foundations of business ethics in Islamic societies; to develop a sound understanding of the

nature and importance of business in Islam; to identify the Islamic Value System; to learn key management and organisation issues in Islam.

International Human Resource Management: This module covers the growing field of International Human Resource Management (IHRM). It presents the latest theories and practices in IHRM. Students are expected to learn about different approaches to cross-cultural management as well as become familiar with some of the debates in comparative HRM and IHRM. It offers comprehensive and integrative case studies that require students to understand how IHRM functions in global organisations from different countries and industries.
International Business Management: The module aims to provide students with an in-depth understanding of some of the main forces that are shaping international business. These include: the increasing globalisation of business activity (understood as the increasing integration of business activity at the level of both firm and nation state); the new forms of business organisation that multinationals (MNEs) use to capture business opportunities; and the rise of MNEs in emerging economies such as countries in the Middle East, China and India

International Corporate Governance: The purpose of this module is to examine the distinctiveness of national norms of corporate governance in advanced and emerging economies. It will provide students with the knowledge of the processes through which international patterns of corporate governance are emerging. The module will examine the pressures of globalisation forces and international organisations on national corporate governance regimes.

Special Topics in Management: This module is open-ended and designed to reflect current trends in management. It is anticipated that some sessions will be taught by guest speakers and academic and practitioner visitors or consultants to The British University in Dubai. Topic coverage should reflect key topics in management that are either a source of debate in the UAE or are likely to become more important in the future. The module might focus on mainstream topics such as Benchmarking Global Best Practice, Quality Management, EFQM, Balanced Scorecard or more emergent issues such as Social Responsibility, Corporate Social Responsibility, Knowledge Management, New Approaches to Leadership and Leadership Development, and Knowledge Management (e.g. Knowledge Sharing).

Strategic Management: The aim of this module will cover the various components of strategy formulation, implementation and evaluation. Formulation components include conducting an external and internal analysis, applying strategic tools and differentiating among the three levels of strategy (operational, business, corporate). Implementation components include governance, ethics, organizational structure, control systems and culture. Evaluation involves monitoring the execution of strategy to determine the extent strategic goals are being achieved and the degree to which competitive advantage is being created and sustained

15.2 Bachelor of Science (BSc) in Accounting and Finance

Head of Programme
Dr Husam Al-Malkawi

Professor
Prof Ashly Pinnington
Prof Stephen Wilkins
Prof Husam-Aldin Al-Malkawi

Associate Professor
Dr Abba Kolo
Dr. Sulafa Badi
Dr. Abdelmounaim Lahrech

Assistant Professor
Dr. Omar Alhyari
Dr Amer Alaya
Dr Farzana Asad Mir
Dr Maria Papadaki

Students will gain an excellent technical grounding for a career in accounting and finance. Students will demonstrate an understanding of current practices in accounting, auditing and finance areas. The programme will enable students to go on to take professional accountancy or finance qualifications.

Programme Outcomes
Knowledge

1. Explain the fundamental financial theories and goals of financial management

2. Demonstrate an understanding of current practices in accounting, auditing and finance areas

Skills

3. Develop critical thinking skills to analyse and apply accounting and financial data in business decision making including examining the relationship between risk and return
4. Recognise the circumstances leading to exposure to different risks, unethical practices and identify appropriate internal control and other preventive measures to the same
5. Analyse a company using a comprehensive range of financial and accounting tools and techniques
6. Identify the influences of political, social and psychological factors on financial decisions

Aspects of Competence
Autonomy and responsibility

7. Apply the principles of finance and accounting in different sector contexts (private, public, non-profit)
8. Demonstrate effective work habits, leadership and commutations to solve practical problems

Role in context

9. Acquire the ability to function effectively as part of a team to accomplish common goals and objectives.

Self- development

10. Synthesise theoretical constructs in a practical application with respect to common business and funding problems, determine and evaluate the critical success factors of financial strategy.

Programme Structure

Year	Term 1		Term 2		Term 3		Total
	Module name	**# CR**	**Module name**	**# CR**	**Module name**	**# CR**	
1	General Mathematics	0	Calculus 1	10	Basic Accounting	10	
	English 1	10	English 2	10	Business Statistics	10	
	Introduction to Computers	10	Principles of Management	10	Principles of Marketing	10	
	Personal and Professional Skills	10	Introduction to Statistics	10	Principles of Microeconomics	10	
	Introduction to Business Enterprise	10					120
2	Principles of Macroeconomics	10	Introduction to Management Information System	10	Financial Analysis and reporting	10	
	Introduction to Finance	10	Understanding Organisations	10	Management Accounting	10	
	Analytical Techniques A	10	Analytical Techniques B	10	Managing Organisations	10	
	University Elective	10	University Elective	10	University Elective	10	120
3	Auditing	10	Corporate Financial Management	10	Business Ethics	10	
	Accounting Theory	10	Modern Banking	10	Human Resource Management	10	
	Information Systems for Accounting	10	Operations and Supply Chain Management	10	Company Accounting	10	
	Financial Markets and Institutions	10	Financial Risk Management	10	Small Business Finance	10	120
4	Advanced Accounting Theory and Policy	10	Advanced Management Accounting	10	Comparative and International Taxation	10	
	Advanced Financial Statement Analysis	10	Investments	10	International Business Management	10	
	Public Sector Accounting	10	Advanced Financial Analysis and Valuation	10	Strategic Management	10	
	Business Law	10	Business Research Methods	10	International Corporate Governance	10	120

Module Descriptions

General Education module description are available in Section 12. Modules common with BSc in Business Management are available in the module description under BSc in Business Management programme.

Basic Accounting: This module introduces to the students the required basic knowledge of the principles and practices of Accounting. By the end of the module, the student will be able to: explain the functions of financial accounting, describe the regulatory framework governing financial accounting, principles of double entry bookkeeping, assess the nature of internal control in accounting, prepare bank reconciliations, control accounts and the entries for the correction of errors, prepare basic financial statements of sole traders and limited companies and illustrate accounting adjustments

Accounting Theory: The aim of the module is to develop the student's abilities to analyse and evaluate the alternative measurement systems which may be selected for financial reporting. On completion of the module, students will be able to describe and explain the origins of the conceptual framework approach to financial reporting; understand the characteristics of different depreciation methods, and demonstrate ability in analysing financial statements using a comprehensive range of tools and techniques.

Auditing: This module introduces students to the theory and practice of auditing. It will cover the following topics in respect of auditing, role and conceptual framework, authority to audit and the role of the professions; ethics and

independence, regulation, auditors' duty and the expectations gaps, auditing standards and the True and Fair View, the nature of evidence, audit process and audit risk, internal control and the auditors' report.

Information Systems for Accounting: The aim of the module is to understand the modern business computing environment. It includes ability to appreciate the role, function and operation of internal controls within a business information system; examine the issues related to the role of information management in an organization; evaluate the nature and role of ERP systems, database use and automation in accounting and business and to analyse the importance of internal control.

Modern Banking: The aim of this module is to enable the students to gain an understanding of the structure and emerging developments in the field of banking. A thorough understanding of the structure of the banking industry (commercial banks, investment banks, universal banks, and financial conglomerates), the diversification of banking activities, the special nature and the challenges being faced by this important industry in the post-crisis era assumes greater significance. The students would also analyse the most relevant issues of modern banking such as e-cash, consolidation and diversification of the banking industry and the emerging prudential regulations introduced.

Advanced Accounting Theory and Policy: The aim of the module is to develop the student's knowledge and understanding of the financial accounting policy-making under the IASB and in the US, UK and GCC contexts. By the end of the module, students will be able to explain the nature of financial accounting theory and place it in an historical perspective; to understand politicization in historical context; understand the financial accounting research in the context of capital markets, and particularly its relevance to policy-makers. The module furthermore ensures that students demonstrate practical skills in the implementation of the accounting policy.

Advanced Financial Statement Analysis: The aim of the module is to develop the student's knowledge and understanding of financial statement analysis techniques and the valuation of firms using financial statement data. The module covers the basic equity valuation techniques, various financial statement analysis techniques, relationship between equity risk and the cost of capital in a financial statement analysis context and the relationships between forecasting, accounting quality and the valuation of the firm. The module also develops students' analytical ability to rank business entities and to analyse for causes and effects of the available information for conversion of data into information.

Advanced FA and Valuation: The aim of the module is to critically appreciate the emerging and advanced models and techniques in financial analysis and valuation. The candidates will acquire the ability to use information and data culled out from financial statements to analyze, value and project the behavior of accounting and financial variables for decision making. They would also learn the usage of different econometric software in valuation, projections and risk assessments.

Advanced Management Accounting: The aim of the module is to consider the appropriateness and effectiveness of management accounting information as used for decision making and control purposes in organisations and to critically evaluate the contribution of management accounting to the management of business strategy. By the end of the module, students will be able to describe and evaluate methods of transfer pricing within organisations, discuss the ways of analysing different factors which affect the design of management accounting systems and examine the emerging role of management accounting in modern organisations.

Business Research Methods:

Investments: The aim of the module is to discuss and analyse current developments in the investments area and consider risk in financial markets, pricing of financial and derivative assets, the use of derivatives, important aspects of fund management, bond characteristics and international investments and hedging techniques. The module also examines features of the management of investment funds, bond valuation and international aspects. It covers a comprehensive range of tools and techniques to analyse the financial decision making process and to identify the impact of human psychology on financial decisions.

Comparative and International Taxation: The aim of the module is to develop the student's knowledge and understanding of the principles of comparative taxation, provide an understanding of the taxation of international business activity. The module equips the student with a grounding in the principles of international taxation and illustrates the ways in which these principles are currently applied in key jurisdictions across the world. On completion of this module, the student will be able to analyse the role of international tax planning in modern business activity, appreciate the principles and application of principles of taxation across various domestic domains (comparative taxation) and the application of general international taxation principles.

Section 16 Student Services

BUiD's Student Services are designed to contribute to the cultural, social, moral, intellectual, and physical development of its students, through careers advice, counselling and access to health care and spiritual facilities.

16.1 Career Development Service

The Career Development Service offers the following types of assistance and support to all registered BUiD students. The service is one of the University's Student Services.

Career Guidance and Support
Career guidance helps students explore vocational interests, and opportunities available in various fields of specialisation in their chosen educational programmes. This is provided through the following means:

- Members of the academic staff giving careers advice;
- Access to any career related activities organised by Knowledge Village/DIAC.

Career and Employment Information
Employment related information is available in both hardcopies and electronic form through employment and corporate websites, copies of corporate directories and databases. The University Library has a specially designated space for access to this information.

Career Development Support
BUiD has retained the services of a Counsellor, to offer individual one-on-one coaching for career success. Consultations are by appointment

16.2 Counselling Service

The University has contracted the services of a qualified Counsellor who will be available to all staff and students who are experiencing psychological or emotional difficulties of any nature.

a. Counselling services are available for all registered students during term time.
b. Services are available from 3pm to 6pm on Tuesday.
c. Information about the service is provided to students during student induction and via BUiD website and Blackboard.
d. Access to the counsellor out of designated hours is available and will be organized through the Head of Student Administration

Appointments can be made by telephone 04 391 3626, or e-mail counselling@buid.ac.ae

16.3 Accommodation

Students are invited to contact the Head of Student Administration for information on available accommodation.

16.4 DIAC Facilities

A. FOOD COURT
The DIAC food court is located across Block 11. The food court is open from 9am to 8.30pm from Sunday to Thursday, and 9am to 4.30pm on Friday and Saturday.

B. PRAYER ROOMS
Male and female prayer rooms are located in Block 8. A prayer room for women is available in Block 11. A prayer room for men is available in Block 12.

16.5 Student Activities and Publications

Both in conjunction with the Dubai International Academic City and as an autonomous institute the University will create and plan several social and cultural activities for students throughout the year. These activities may include:

- Guest lectures
- Dinners

- International celebrations
- Desert safaris and other events

Student's ideas for a suitable student activity will be welcome by BUiD.

Student Organisations

BUiD will have authority over all student organisations and activities.

- To provide for the efficient use of University buildings and facilities and to protect the integrity and reputation of BUiD, no student organisation will be permitted to use BUiD facilities without prior approval. The students can request for such approval by writing an email to the Head of Student Administration.
- All students and guests must conform to the UAE law. Organisation or students arranging the activity will be responsible for taking all reasonable steps to prevent any infraction of the University rules and UAE laws.
- Students will be expected to behave in a responsible and respectful manner when taking part in such activities and refrain from any disciplinary offences as set out in the student Disciplinary policy.

Supervision of Student Activities & Publications

- BUiD will broadly support any organised student activities that may arise from students' interests, such as student societies or student publications.
- While the University respects individual freedom of expression, students will be free to express their views as long as they do not interfere with the rights and freedoms of other individuals but they should refrain from publishing offensive or defamatory comments concerning the University or any individual or group of individuals within or external to the university community.
- Material that is found to be disrespectful and offensive to Islam, UAE laws and traditions, and/or any other cultural or ethnic group will not be published.
- Any individual/group whose conduct violates these rules will be subject to disciplinary action.

Student-run media

Any Student-run media, shall be representative of the entire student body and not be the province of a limited number of students or small groups of students associated with any Faculty, programme or department. Staff members (including editors) for student media shall be widely recruited from the entire student body, and a designated faculty advisor shall provide assistance to student staff members irrespective of their programme of study.

Appropriate disclaimers will be published stating that:

a. University is not responsible for the content of student publications or broadcasts.
b. Views and opinions disseminated through any or all of the student-run Media are not necessarily the views and opinions of BUiD.

All information provided through student-run media shall be based upon professional standards of accuracy, objectivity and fairness.

The students responsible for student-run media will check and verify all facts and verify the accuracy of all quotations before publishing.

Student Media and Use of Electronic Information Resources

Student may use electronic information resources, including Internet Web sites, e-mail, etc. to gather news and information, to communicate with other students and individuals and to ask questions of and consult with sources. The university reserves the right to remove or restrict student media access to on-line and electronic material in case the content is deemed in appropriate by the University

Social Networks

Social network sites such as Facebook, Myspace, and other digital platforms and distribution mechanisms facilitate student communicating with other students. Participation in such networks has both positive appeal and

potentially negative consequences. It is important that BUiD students be aware of these consequences and exercise appropriate caution if they choose to participate.

Students are not restricted from using any on-line social network sites and digital platforms. However, users must understand that any content they make public via on-line social networks or digital platforms is expected to follow acceptable social behaviours.

16.6 Alumni Association

BUiD aims to maintain an up-to-date database of its former students. Through this BUiD will act as a contact point for a worldwide network of alumni contacts and groupings of alumni in various countries and regions of the UAE. Inclusion in the database will be voluntary and will form the mailing list for news on developments within BUiD.

16.7 Student Participation in the University

Students will have a crucial role in providing feedback to BUiD on the quality of its teaching and learning and support services. Students may participate in the following ways:

- Completing a module feedback form at the end of each module
- Participating in the module review process
- Electing a student to be Programme Representative
- Supporting the Programme Representative at the relevant Board of Studies, Senate and Programme Review Committees
- Offering suggestions to the Library and other support services using the appropriate Suggestions Boxes
- Giving feedback to the Careers, Counselling, Health service and other DIAC service providers using the appropriate questionnaire
- Using the Student Grievance Procedure as appropriate

Section 17 Learning Support Services

Library

a. Mission Statement

The mission of the University Library is to deliver information in the form, at the place, and at the time of most benefit to the user, within the requirements of BUiD. The University Library exists to serve the teaching and research needs of BUiD in information provision, and strives to offer the highest quality of service to all students and staff. In addition to traditional library services, this involves providing users with access to information in a variety of electronic formats.

b. Collection Management

The University Library contains a growing collection in a variety of format for study and research in all subjects offered by the University educational programmes. All its collection is searchable online through its discovery platform.

The print collection is catalogued and classified according to the Library of Congress Classification standards. Access to materials which the University does not have in its collection, may be arranged from other libraries subject to the lender agreement.

A list of electronic resources is organised on the University Library website. Subject guides were created to facilitate access to those resources relevant to a particular field of study of research. Registered staff and students can access these resources off-campus.

The University Library holds a collection of print and electronic thesis and dissertations. The print collection is organised according to programmes which can be used within library premises and can be accessed electronically through the institutional repository.

c. Services

The University Library provides a variety of its online services to cater the needs of its users such as My Library Account, book renewals, book requests, study room bookings, off campus access, video tutorials, reserves, database guides.

Registered users should have a Library account to access its resources and services. A system-generated email will be sent to their BUiD email account when setting a new password and/or resetting their password which is available on the Library website. Any issues pertaining to their Library account may contact the Library Help Desk directly.

Document Delivery Services (DDS) or document supply service refers to the physical or electronic delivery of a document from a library collection required by library users, including book chapters. Registered users may submit a request using our discovery platform which may take up to 72 hours to fulfil its requests.

Computer workstations is available in the Library for student's use and is linked with the multifunction self-service machine which includes printing, scanning and copying. Users must use their University login details to use the computers and must have their PINs set in order to use the machine for reproduction.

Access to Library facilities will be open at such times as may be determined by the Head of Library Services in agreement with the Executive Office, and a notice of opening hours is available on the Library website and outside the Library.

These Library services is available on the its website including its policies and procedures and any other relevant information to its users.

d. Information Literacy

All new students receive an induction to the University Library and its services during their induction week. This include a general introduction of the collection and its services, rules & regulations on access to resources and some key essential information.

During the academic year, students may receive practical training on the use of databases, and special modules such as basic library skills available on the learning management system.

e. Library Staff & Support

The University Library is composed of professional & support staffs to support its users. Staffs are available during library hours in the library and virtually.

A chatbot is available on the Library website to answer immediate queries and will be directed to a professional librarian if they need to. In addition, any enquiries to the library may be emailed to library@buid.ac.ae or by telephone at 04 279 1419.

Individual session can be arranged with a librarian either in person or online. Users should submit request available on the library website to schedule an appointment.

IT Facilities

The purpose of the IT facilities in the University is to provide students (as well as academic staff) with facilities to support the programme. These technologies/facilities include: networking (Wired and Wireless), Audio Visual facility, internet, and accessibility to software (general and specialised).

Projectors with 3LCD technology and wireless connectivity are installed in all Classrooms in BUiD including the Auditorium. Most of the classrooms offer audio capabilities as well. BUiD has four 65" Interactive panels with OPS and 4K resolution to facilitate the learning and teaching process, this setup provides collaboration and mirroring capabilities along with wireless connection.

The professional full-time IT support staff members have extensive experience in hardware and software. The support staff members provide direct support to students in troubleshooting on the various equipment and specialist software available for student use. The IT support staff also organise the purchasing of any required software based on module requirements provided by Faculty members and help in installation and training. A shift system is employed to extend coverage across the full University timings.

The following facilities are currently available for the students

- The IT lab is equipped with 34 latest i7 all-in-one computers. These PCs are equipped with specialised teaching, learning and research software like, SPSS, AMOS, IES, ETABS, etc.
- Students have access through Printing Management System (papercut) to laser printing at the library and student area. Students are given a free 20.00 AED print credit; additional print cards can be purchased at the library. We have implemented MFP with proximity card authentication to facilitate print, scan and copy in the BUiD campus.
- The Library is equipped with 4 computers for student and staff use, one multi-function coloured printer.
- The University encourages all students to make use of ICT services and facilities. Many students prefer to use their own laptops and gadgets. These are given access to the BUiD wireless network, the campus is well connected with 57 wave-2 access points, so that students may use them throughout the campus. BUiD provides a free, secure high performance wireless network facility (wireless AC up to 800 Mbps network speed) for faculty, staff and students.
- Blackboard, BUiD's eLearning platform, is used by instructors to post and distribute course content such as syllabuses and handouts, communicate with students via announcements and email messages, and assess student learning through quizzes and online assignments. Blackboard is also integrated with Turnitin, a software that prevents plagiarism and delivering comprehensive feedback on students' written work. BUiD recently upgraded its Blackboard platform to SaaS that includes learn, content Management, collaborate, community engagement and ally modules.

Timings and Support

The University offers all of its postgraduate programmes in the evening and the helpdesk hours of IT personnel are maintained to support these programmes. The IT helpdesk working hours are 8am to 7pm from Sunday to Thursday and from 9am to 6 pm on Saturdays.

IT support can also be sought via calling the IT Services helpline and by raising support tickets on email.

Servers and Bandwidth

BUiD has 6 running servers: application server, file server, backup server, and virtualisation server. BUiD has Hyper Virtualisation system server which can handle up to 8 different virtualized servers.

BUiD has subscribed for 2 separate ADSL lines 275 mbps each (550mbps) to cater students and staff needs and a dedicated 16mbps leased line for its on-premises hosted services.

Reliability of IT Network
BUiD has improved network perimeter and server farm security with 3 FORTIGATE 500 firewall devices.

In order to improve IT security and continuity for critical applications, BUiD has WAF subscription from cloud flare.

Labs
1. Physics Lab
2. Architecture Lab
3. Engineering Lab

ATKINS Digital Design Studio: Funded by ATKINS Global in their continuous support for The British University in Dubai. The studio has a large variety of engineering, simulation, and graphic design software to help BUiD Engineering students complete their work

Doctoral Training Centre

The DTC is a central department that supports and promotes the development of research activity and output at The British University in Dubai. Working in collaboration with the Academic Faculties and Central Administration, the DTC offers a comprehensive and systematic training and development programme for doctoral level students. The British University in Dubai is a research intensive institution and our commitment to research development extends to our students.

Research Development and Support
The primary focus of the DTC is to provide training, guidance and support for doctoral students in the pursuit of research excellence and output. Through a combination of training courses, workshops, presentations, discussion groups, seminars and conferences, the DTC promotes research activity, supports student development and seeks to enhance the value and relevance of BUiD's contribution to both academia and the community at large.

Training Provision
Training courses are grouped thematically into areas of development so that students can develop a range of transferable skills in key areas:
- Communication
- Career management
- Networking and team working
- Research methodology and management
- Information technology
- Personal effectiveness

Research Training courses for doctoral students are offered throughout the year and aim to cover key areas of relevance and value. The courses reflect the early, mid and late stage stages of PhD development and are targeted and offered accordingly.

Core course delivery

In addition to the doctoral training courses above, the DTC provides access to core courses for all postgraduate students at BUiD. These courses are available throughout the academic year and are offered on multiple occasions and times to suit the diverse needs and expectations of our student body.

- Referencing, acknowledging sources & avoiding plagiarism

- Writing introductions, definitions, conclusions & abstracts

These courses focus on key skills and competencies and are relevant to all research students. Registration for all courses is through the BUiD Blackboard system and students will be emailed with details of new courses and registration processes.

Section 18 Academic Governance

18.1 Quality of Instruction

The quality of instruction in individual modules is evaluated regularly, and the results are used to provide a basis for ongoing improvement of teaching effectiveness in each programme. Generally, academic staff members assess teaching effectiveness using feedback from student evaluations, peer observations and self-evaluation. Evaluation results are used to improve teaching and learning.

The quality of each programme is reviewed and evaluated using the following mechanisms:

i. Collection of Student Feedback through questionnaires and various committee cycles
ii. Scrutiny of the programme by the Board of Studies, to ensure academic excellence
iii. End of term module reviews by tutors
iv. Annual programme review
v. External Examiner system
vi. Ongoing evaluation by the Dean and the associated UK university

18.2. Responsibility for Teaching and Learning within Faculties

The following are appointed to oversee various aspects of the teaching within Faculties:

17.2.1 Board of Studies

Each programme has a Board of Studies. The Board of Studies is responsible to the Dean of Faculty for the curriculum approval process for the programme within the Faculty. The Board of Studies has responsibility for undertaking all necessary consultations within BUiD in order to formulate thorough and well-rounded academic proposals.

Essentially, the main function of the Board of Studies is to consider proposals to change:

- the courses offered within a specific programme,
- overall student assessment within the programme, including mark weighting for courses,
- the general structure of programme

and to ensure that:

- the programme conforms to UAE accreditation and UK QAA requirements
- academic excellence is maintained in the programme
- any proposed programme changes appear to be at a level appropriate to the intended qualification.

The Board of Studies is also responsible for consideration of relevant issues relating to the delivery and syllabus of the programme and for monitoring and evaluating teaching activity within the programme. It also develops recommendations for teaching policy in the areas of recruitment, admissions, and liaison with other Faculties.

In taking forward its responsibilities, the Board must receive and consider the following inputs: -

- External Examiner Reports
- Issues raised during Board of Examiner meetings
- Issues raised during Academic Staff-Student Liaison Committee (ASSLC) meetings
- Student Feedback Questionnaires
- Annual Programme Self- Study reports
- Programme Review reports
- Minutes from Advisory Boards

Where appropriate, for example, in the case of an interdisciplinary programme, a specific proposal/issue may be considered by more than one Board of Studies.

The Board of Studies is chaired by the Dean of Faculty and includes all academic staff who teach on the programme, at least one-member external to the Faculty and at least two student representatives (chosen from class representatives). A BOS meeting is held at least once in the first and second term.

Agendas, papers and minutes of the Board are made available to the student representatives for onwards dissemination to the student community.

18.2.2 External Examiners

The External Examiner system forms an important part of BUiD's quality assurance procedures. External Examiners help to ensure that degrees awarded by BUiD are comparable in standard to those of other equivalent departments in the associate universities, although their content may differ. They also ensure that the assessment system is fair and is equitable operated in the classification of students.

In order to achieve these purposes external examiners will:

i. participate in assessment procedures for the award of degrees
ii. arbitrate in problem cases
iii. comment and give advice on assessment procedures.

If appropriate, External Examiners may also comment on module content, balance and structure; and on degree programme curricula. Faculties may also invite External Examiners to see and comment on reports and feedback related to curriculum review and quality of educational provision.

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18.3 Monitoring and Evaluation Procedures

The following outlines Faculties' programme monitoring and evaluation procedures:

18.3.1 Academic Staff-Student Liaison Committee

The Academic Staff-Student Liaison Committee (ASSLC) is a forum for consultation and reporting between the academic staff and students of the Faculty. The ASSLC plays an important role in the dissemination of information to students and is an essential element in the quality assurance procedures. The ASSLC meetings are held once in the first and second term.

The members of the ASSLC comprise academic staff, other staff and students. The Convenor of the ASSLC is the Dean of Faculty, or his/her nominee. The academic staff membership should consist of at least the Programme Coordinators and Personal Tutors. Other staff members present may include a member of Library staff and the Registrar (or his/her nominee). Allowance is made for student representation at a minimum level of two students from the programme, to be nominated by class members. The ASSLC will also provide a forum from which student representation on the Board of Studies and other Faculty committees may be drawn.

The role of the ASSLC is to address teaching and organisational issues that affect students in the Faculty. This may involve discussion regarding curricula, teaching methods, assessment procedures, facilities and resources within the Faculty, timetable, workload, vocational work etc. Some of these issues may be of wider university concern, such as the Library provision or opening times.

Agendas and papers and minutes from this committee are made available to the student representatives for onwards dissemination to the student community

18.3.2 Programme Quality Self-Study Reports

At the end of each academic year, the Head of Programme/Programme Coordinator prepares a report using a University template, covering the content of the programme, any problems encountered, and responses to programme assessments by the External Examiner. This report summarizes the performance of the programme over the full academic year. This report is submitted to BoS for consideration of any issues and acts as an important input for the proceedings of the annual review of the programme.

18.3.3 Elicitation of Feedback from Students

Each programme has elected student representatives for every intake. The student representative must be present at Board of Studies meetings, where there will be the opportunity of raising issues pertaining to teaching methods, syllabus or any other matters relating to individual modules, the dissertation or the programme as a whole. A student representative is also elected as a member to the Senate on committees, such as the Senate, in the wider university.

In addition, feedback questionnaires will be administered by the Office of Quality and Institutional Effectiveness at the end of each module. The results are summarised and reported to the Head of Programme/Programme Coordinator, relevant module coordinator/s, and the Dean. The Head of Programme/Programme Coordinator is responsible for highlighting to the Board of Studies and the Annual Programme Review any areas of concern and/or suggestions for improvements based on the feedback.

Exiting students are also asked to complete a student feedback form in order to elicit feedback on the programme as a whole. The forms are used to produce a report evaluating the success of the programme as a whole and suggesting any improvements that might be made, based on the results of the feedback.

18.3.4 Programme Review

The purposes of the reviews are:

- to ensure that the academic standard and content are appropriate to the purpose of the programme concerned, and
- to ensure that the functioning and administration of the programme is in good order.

The reviews are intended to be constructive, and should aim to enhance the quality of provision within a Faculty. They should encourage Faculties to scrutinise critically their aspirations for and implementation of specific programmes.

All the well-established programmes will be reviewed every other year unless a specific request for review is initiated due to a significant reason and approved by the Chair of the Academic Board.

All new programmes and programmes that have undergone substantial changes will be reviewed annually for three years. If there are no substantial issues after the first three years of operation, the review frequency will be reduced to once every two years.

Reviews will take place at the end of the academic year. Review Panels will normally consist of three members. Two members will be from the Academic Staff, one of whom shall act as the lead for the review and who will convene any specific review meetings and will be in-charge of writing the final report.

Review Panels should see the following documentation for the period under review:

1. Completed Programme Self-Study Reports
2. Questionnaire reports relevant to the Programme
3. Relevant programme or faculty handbook
4. End of term module review forms
5. Relevant external examiners' reports
6. Copy of the previous review
7. Report of actions taken as a result of the review(s)
8. Minutes for the Board of Studies
9. Notes for the Academic Staff Student Liaison Committee

The Review Panel should meet with:

- The Dean of Faculty;
- The Programme Co-coordinator/Head of Programme and the Faculty members
- Student Representatives

Programme Review Reports and action items will be sent to Academic Board for comment and approval.

18.3.5 External Examiners Report

External Examiners are required to produce a written report at the end of the academic year. Matters arising from the External Examiners' annual report will be considered by the Board of Examiners and the Board of Studies as appropriate.

The reports are presented to the Dean of Faculty, and also sent to the Head of Quality for onward transmission to the Board of Studies and the Annual Review Panel. When the reports have been gathered they are read and summarised by the Head of Quality, who will draw to the attention of the Vice-Chancellor any reports that appear to require executive action.

The points that the External Examiner are asked to comment upon include the availability of information on course aims, structure and content; the extent to which the examinations adequately covered the programme content; the appropriateness of the teaching methods; the appropriateness of the standards of internal markers; the comparability of degree classifications with those in other institutions, and the procedures of the Board of Examiners. The External Examiner would expect to have an opportunity of evaluating the components of continual assessment that contribute to the overall assessment, perhaps by being able to sample material. Inputs

from External Examiners are normally sought on substantial changes or on the introduction of new modules or programmes. External Examiners are also given the opportunity, if they so wish, of making confidential comment to the Vice-Chancellor.

GLOSSARY

Admissions Tutor	An academic member of the Faculty who makes decisions on applicants' suitability for being offered a place on a programme
Anonymous Marking	A process whereby the names of students on scripts are removed or concealed, so that examiners/markers do not know their identity during the marking process
Appeal	A student may challenge a decision made by selected University committees which directly affects their study
Assessment	Any activity which is graded by academic staff and counts towards the overall module marks, including examinations
Board of Examiners	A formally constituted University committee charged with approving assessment decisions
BUiD	The British University in Dubai
Compensation	When Board of Examiners recommends that a student's less than satisfactory performance in one component of assessment be compensated by better performance in other components within a module
Credit Transfer	A process by which a student may obtain credit for relevant modules undertaken previously at accredited/recognized institutes

Double Marking	When a student's work is assessed by more than one marker. If the marks and annotation of the first marker are not available to the second marker, this is known as 'blind' double marking
Electives	Modules which are not compulsory for students. *Electives* may be *free*—selected by the student from any course offerings, or *restricted*—chosen from a pre-determined list of options.
Examination	A formal assessment which is invigilated and subject to BUiD Examination Regulations
Exemption	The status achieved by a student who obtains credit transfer for previous learning
External Examiner	An academic, external to BUiD, who is appointed to ensure that the standards are at the correct level
Full-time	A study route whereby a student completes a programme in two terms & dissertation
GCSE	General Certificate of Secondary Education – a British school qualification normally after 11years of study
Grading System	BUiD uses an agreed grading system for all assessments
Dean	The academic in charge of the curriculum department with overall responsibility for delivery and standards
Faculty	The University internal structure with primary responsibility for delivering learning in a given discipline
Internal marker	A member of BUiD academic staff who marks a student assignment or dissertation
Internationally Accredited University	Every university may obtain accredited status from their home country or through an international recognition system such as NARIC which is used in the UK
Mitigating Circumstances	Events which adversely affect a student's performance and which may be taken into account by the Board of Examiners
Moderation	Independent academic checking of assessed work of a student by more than one marker. May involve second marking, double marking or analysis of marks for the cohort
Module	A coherent, credit bearing, curriculum element of a programme
Module Coordinator	An academic staff member responsible for the delivery and assessment of a module
Part-time	A study route whereby a student completes a programme over two or more academic years
Personal Tutor	An academic staff member with primary responsibility for ensuring that students progress appropriately during their studies
Programme Coordinator	The academic responsible for the oversight of a programme
Provisional	The status of assessment and examinations grades until they are confirmed by the Board of Examiners
Study Plan	The initial document produced after a meeting between the Personal Tutor and student
Transcript	A list of modules studied and the module grades
UAE	United Arab Emirates
Unfair Means	Assistance that a student uses to gain unfair advantage in assessments or examinations
University	The British University in Dubai
Upper Second Class Honours Degree	A classification of a British Honours Bachelor Degree. This normally equates to a GPA of between 3.0 and 3.5
Video-wall	Technology used to deliver lectures in real time from UK associate institutions
Viva Voce	An oral examination