



جامعة أم القرى
UMM AL-QURA UNIVERSITY

College of Engineering, Al-Lith

Electronics and Communications Engineering Department (ECED)
Electronics and Communication Engineering Program (ECEP)

E
CEP

Program Handbook

List of Abbreviations

Umm Al-Qura University	UQU
College of Engineering, Al-Lith	CEL
Electronics and Communications Engineering Department	ECED
National center for Academic Accreditation and Evaluation	NCAAA
National Transformation Program	NTP
Key Performance Indicator	KPI
Strengths, Weaknesses, Opportunities, Threats	SWOT
Program Learning Outcomes	PLOs
Course Learning Outcomes	CLOs
National Qualifications Framework	NQF

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College and Department Information

Electronics and Communication Engineering Department (ECED) of Engineering in al-Leith is deemed to be one of the most prestigious Saudi engineering programs. Founded in 1432H, the college embraces several engineering specialties that go in line with the world's latest updates in engineering, and in the meantime satisfy needs of the domestic work market, as well as requirements of the Kingdom's development plans.








The department seeks to establish academic programs commensurate to the international criteria adopted by the national and international accreditation institutions.

ECED was founded in the reign of the late Custodian of the Two Holy Mosques, King Abdullah bin Abdulaziz, upon the approval of the Higher Education Council, in its session no. 62, dated Dhul-Hijjah 29th, 1431H, corresponding to December 5th, 2010. Several important resolutions were issued in the said session, providing for adding 6 new colleges to Umm al-Qura University (UQU) in Makkah, and 26 other colleges across the Kingdom.



In September 2011, the UQU President, Dr. Bakri bin Maatouq Assas, signed a consultancy services contract with the Advisor and Director of International Cooperation at the US-based DeVry University. Indeed, the college has received colossal support from the UQU President, as well as his deputies and deans of supportive deanships.

In spring 2012, the UQU, as represented by al-Leith College of Engineering, selected its building, which was equipped and supported with cutting-edge laboratories and classrooms. The total cost of the first phase of equipping and furnishing amounted to SR 6 million. Since its inception, the college has shown keen interest in hiring outstanding competent cadres; both Saudis and foreigners.

College Board

-  Dean of the college/Deanship
-  Vice Deanship of Educational Affairs
-  Vice Deanship of Academic Development and Quality
-  Head of the department
-  Teaching Staff members
-  Laboratory managers and technicians
-  Administration office

Departments

-  Electronics and Communications Engineering Department (ECED)
-  Environmental Engineering Department (EED)








- The construction of the college board, committees and units is satisfied by the ministry of education bylaws, NCAAA requirements and NQF.
- Committees' members are required to fulfill and satisfy all NCAAA standards, supported by valid evidences.

Committees

-  Strategic and executive plans committee
-  Missions and goals committee
-  Teaching staff, employment, financial plan and scientific research committee
-  Quality assurance, program management and course files committee
-  Student administrations, support services and learning resources
-  Teaching and learning and public relations committee
-  Program advisory committee
-  Exams committee
-  PLOs assessments committee
-  Laboratory committee
-  Curriculum committee
-  Media & website committee

- Committee exists in college only.
- Committee exists in departments only.
- Committee exists in both.

Units

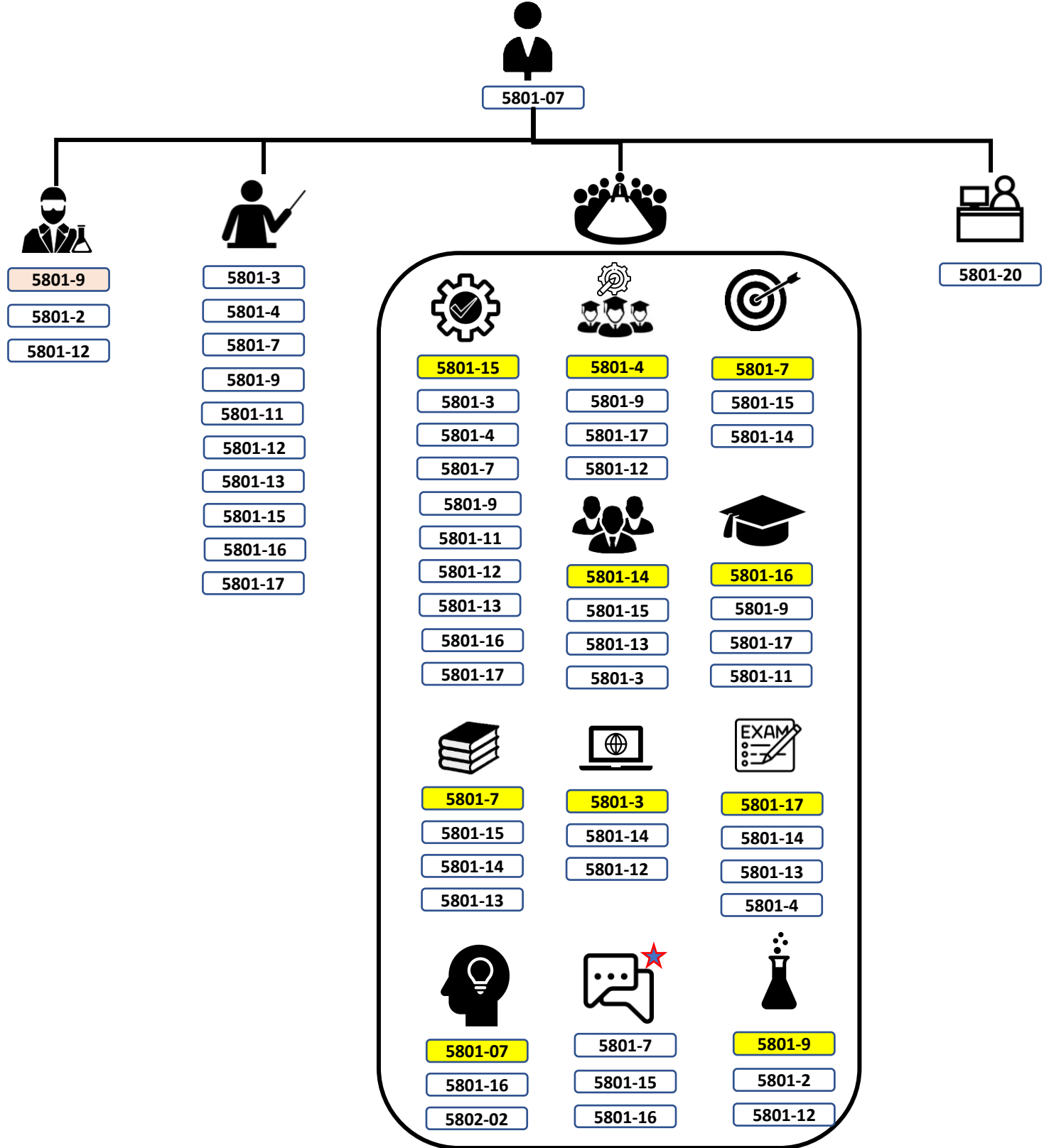
-  Alumni Unit
-  Students Activities Unit
-  Maintenance Unit
-  Employment Unit
-  New students Unit
-  Entrepreneurship Unit
-  Training Unit

The department members are listed in alphabetical order with their codes.

Academic member	Reference Code	
Abdullah Ali Saleh Alshehri	5801-1	●
Abduallah Khalid Ghazi Alhazmi	5801-2	●
Abdullah Awad Safir Almalki	5801-3	●
Abdullah Saeed Dhafer Algarni	5801-4	●
Abdulmajeed Abdulraheem Aziz Alyazidi	5801-5	●
Ahmed Zuhair Saeed Hasanain	5801-6	●
Ahmed Sulaiman Hamad Almusallam	5801-7	👤
Ali Abdullaah Ibrahim Albarakati	5801-8	●
Ashraf Mohamed Abulhamed Khalifa	5801-9	●
Asim Mohammed Abdulmotaleb Alkhaibari	5801-10	●
Fahd Saleh Mohsen Alharbi	5801-11	●
Hussam Osaykir Jaber Alsulami	5801-12	●
Mirza Imran baek Mirza Yunus baek	5801-13	●
Mohamedali Mahmoud Mabrouk Belaid	5801-14	●
Mohammed Saleh Jaruallah Alzahrani	5801-15	●
Mohammed Mutlaq Almatrafi	5801-16	👤
Mohammed Mustafa Abotalib Alhasani	5801-17	●
Raid Raddah Ayesb Aljadaany	5801-18	●
Turki Ahmad Muhammad Alzahrani	5801-19	●
Secretary		
Hamza Abdulmuin Hamzah Alzubaidi	5801-20	👤

Member status

● Active ● In a scholarship ● In a secondment



★ The committee will further need external academic and non-academic advisory members

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08 | Goals

44 | Objectives

Mission

High quality learning, education and research for promising students to promote the Saudi economy with the full agreement of Saudi VISION 2030 and serve Hajj and Umrah.

Goal 1: Learning and education excellence

- Objective 1:** Application of learning and education model.
- Objective 2:** Develop the multidisciplinary initiatives among stakeholders
- Objective 3:** Support the recruitment of highly valued faculty members in special areas.
- Objective 4:** Periodic reviewing of learning and education process.
- Objective 5:** Broaden the curricula to keep students at the cutting edge of teaching and learning.
- Objective 6:** Apply the most recent teaching strategies.
- Objective 7:** Reinforce the educational impact of international opportunities and experiences.
- Objective 8:** Apply students' skills on beneficial projects for societies.
- Objective 9:** Improve extracurricular and co-curricular activities within the academic programs.

Goal 2: Scientific research

- Objective 1:** Increase research facilities and recourses.
- Objective 2:** Improve the quality, number of publications and impact factor of research
- Objective 3:** Promote research collaboration with national and international institutions.
- Objective 4:** Encourage the participation of students in research.
- Objective 5:** Publish and maintain college research review.
- Objective 6:** Involve the research activities to the Saudi Arabia VISION 2030.
- Objective 7:** Attract funding opportunities to support research with innovation.

Goal 3: Communal responsibilities.

- Objective 1:** Increase the students and member of staff in community service in Al-lith city.
- Objective 2:** Increase the students and member of staff in Hajj services and pilgrims.
- Objective 3:** Increase community services.

Goal 4: Infrastructure development

- Objective 1:** Improve the e-learning facilities and procedures in courses.
- Objective 2:** Recorded lectures for syllabus topics.
- Objective 3:** Evaluate the capability of resources and services.
- Objective 4:** Develop sustainable college resources.
- Objective 5:** Improve high safety standards.
- Objective 6:** Apply new automation systems.

Goal 5: Administration development

- Objective 1:** Encourage faculty to have membership of professional societies.
- Objective 2:** Promote professional growth for educational excellence.
- Objective 3:** Implement new mechanisms for administrative excellence.
- Objective 4:** Establish a mechanism for professional growth of academic and administrative leaders.

Goal 6: Quality assurance

- Objective 1:** Attain national programs accreditation.
- Objective 2:** Obtain international accreditation for all programs.

08 | Goals

44 | Objectives

Mission

High quality learning, education and research for promising students to promote the Saudi economy with the full agreement of Saudi VISION 2030 and serve Hajj and Umrah.

Goal 6: Quality assurance (continued)

Objective 3: Reinforce the implementation of the college quality management system.

Objective 4: Strengthen the improvement of academic and administrative quality.

Objective 5: Establish and improve KPI implementation process.

Objective 6: Improve benchmarking process.

Goal 7: Media and marketing

Objective 1: Increase students' participation in community service events and programs.

Objective 2: Expand community services.

Objective 3: Enhance the image of college of engineering and its programs.

Objective 4: Promote marketing techniques for the programs.

Objective 5: Enhance relationships and agreements with Alumni.

Goal 8: Sustainability

Objective 1: Increase student numbers and income.

Objective 2: Review college financial system.

Objective 3: Create revenue sources for the college.

Objective 4: Manage risks to ensure continued sustainability.

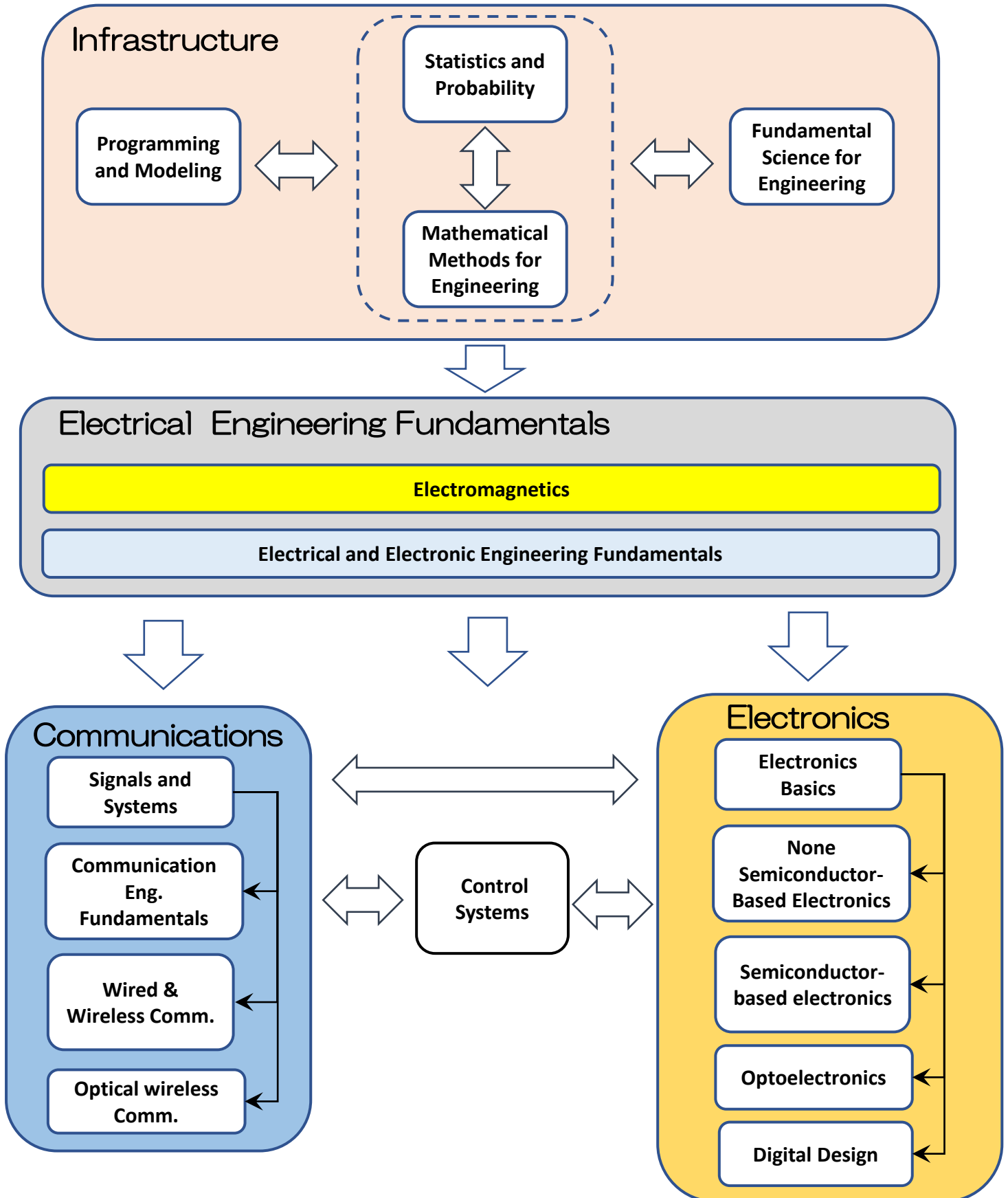
We aim at developing our academic curriculum in accordance with the latest accreditation standards both locally and internationally. The Electronics and Communications Engineering program at ECED-CEL emphasizes on mathematics, science and engineering foundation and broad theoretical and technical knowledge in Electronics and Communications engineering that help students design, develop, install, test, and maintain complex systems.

The curriculum includes subjects related to wired and wireless communication and electronic circuit design with complementary topics in mathematics and computer engineering. The curriculum integrates general competencies such as: written and oral communication, critical thinking & decision making, problem-solving, ethical, and teamwork skills in engineering and other general & applied sciences courses. The program culminates into a design project; a major design experience for students based on the knowledge and skills acquired in earlier course work that integrate appropriate engineering standards and multiple constraints.

As many elective courses are available at the last year, the curriculum offers the privilege to orient the last year towards either electronics or communications to satisfy the local market needs.






In the following page, a general structure of the curriculum of Electronics and Communications Engineering Program is demonstrated. Each block may contain at least two courses to be covered.

The curriculum was designed to cover all the fields in the blocks



Level 1	Computer Programming Skills 3 credit hours	Calculus (1) 4 credit hours	General Chemistry (1) 4 credit hours	English Language (1) 6 credit hours
	General Physics (1) 4 credit hours	Calculus (2) 4 credit hours	Learning Skills 3 credit hours	Technical English 4 credit hours
Level 2	Linear Algebra for Engineers 3 credit hours	Introduction to Solid State Electronics 3 credit hours	Circuit Analysis (1) 4 credit hours	General Physics (2) 4 credit hours
	The Holy Qur'aan I 2 credit hours	Engineering Graphics 2 credit hours		
Level 3	Electronic Devices 4 credit hours	Circuit Analysis (2) 4 credit hours	Differential Equations for Engineers 3 credit hours	Islamic Culture I 2 credit hours
	The Holy Qur'aan II 2 credit hours	Eng. Computational Method 3 credit hours		
Level 4	Electronic Circuits 4 credit hours	Electromagnetics 1 3 credit hours	Signal Analysis 3 credit hours	Probability and Statistics for Engineers 3 credit hours
	Islamic Culture II 2 credit hours	Programming for Engineers 3 credit hours		
Level 5	Advanced Engineering Mathematics 4 credit hours	Analog Communication System 4 credit hours	Logic Design 4 credit hours	Summer Training (1) 1 hour
	Introduction to Engineering Design 3 credit hours			
Level 6				

Main Courses

-  Foundation year and general courses
-  General courses
-  College courses
-  Program courses
-  Elective courses

165
hrs

Level 7	Introduction to Electrical Power 3 credit hours	Digital Communication System 3 credit hours	Microprocessors 4 credit hours	Electromagnetics 2 4 credit hours
	The Holy Qur'aan III 2 hours			
Level 8	Control Systems 4 hours	Islamic Culture 3 2 hours	Summer Training (2) 1 hour	Digital Integrated Circuit 4 hours
	Sensors, Transducers and Measurements 4 hours			
Level 9	The Biography of Prophet Mohammad 2 hours	Arabic Language 1 2 hours	Engineering Economics and Management 2 hours	Design Project 4 hours
Level 10	Digital Signal Processing 4 hours	Islamic culture 5 2 hours	The Holy Qu'aan 5 2 hours	Engineering Standards and Professional Ethics 2 hours
Elective Courses	Power Electronics 3 credit hours	Computer & Comm. Network 3 credit hours	Optical Fiber 3 credit hours	Satellite Communication 3 credit hours
	Modern Wireless Communication System 3 credit hours	Radio Freq. Integrated Circuit Design 3 credit hours	Information Theory and Coding 3 credit hours	Modeling and Simulation 3 credit hours
	Embedded Systems 3 credit hours	Image Processing 3 credit hours	Introduction to Artificial Intelligence 3 credit hours	Digital Control 3 credit hours
	Radar Systems and Applications 3 credit hours	Antennas and Propagation 3 credit hours	Microwave Devices 3 credit hours	Advanced Topics in ECE 3 credit hours
	Introduction to Nanoelectronics 3 credit hours	Optoelectronics 3 credit hours	Integrated Circuit fabrication 3 credit hours	Solid State Devices 3 credit hours
	Automate Robots 3 credit hours			

Main Courses






- Foundation year and general courses
- General courses
- College courses
- Program courses
- Elective courses

165

hrs

Level 1	Computer Programming Skills 3 credit hours	Calculus (1) 4 credit hours	General Chemistry (1) 4 credit hours	English Language (1) 6 credit hours
	General Physics (1) 4 credit hours	Calculus (2) 4 credit hours	Learning Skills 3 credit hours	Technical English 4 credit hours

Main Courses

-  Foundation year and general courses
-  General courses
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Foundation Year

The Joint First Year Deanship is an academic integrated program which is supported by the UQU Vice Presidency for Educational Affairs. It aims to empower students with basic skills needed for studying at university.

Objectives of Foundation Year

The above foundation year have many objectives:






1. Providing students with various skills that will help them, Allah willing, to succeed and excel in their academic studies and careers.
2. Determining the student’s ability through his performance in the Joint First Year Deanship, and choosing the most suitable college for him, according to the standards of the different colleges.
3. Improving input level for the participating colleges in the Joint First Year Deanship.
4. Improving the educational environment, seeking academic quality, and using modern techniques in teaching.
5. Developing students’ creativity and innovation.
6. Contributing to the improvement of university outputs.

165

hrs

Level 1	Computer Programming Skills 3 credit hours	Calculus (1) 4 credit hours	General Chemistry (1) 4 credit hours	English Language (1) 6 credit hours
	General Physics (1) 4 credit hours	Calculus (2) 4 credit hours	Learning Skills 3 credit hours	Technical English 4 credit hours

Main Courses

-  Foundation year and general courses
-  General courses
-  College courses
-  Program courses
-  Elective courses

Tracks of Foundation Year

In Umm Al-Qura University, there are four paths of foundation years:

- Scientific paths
- Health path
- Nursing path
- Management path

All college of engineering programs fall onto scientific track foundation year type.

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hrs

POs and Foundation Year

The relationship between POs and the foundation year courses is listed in the CLOs vs POs consistency matrix in Appendix E.

Tracks, Pathways, Exit points and Branches

ECED do not offer tracks, pathways or exit points. Also, there is no branches for ECED.

Linear Algebra for Engineers

This 3CHs course will provide the students with some basic concepts in linear algebra such as matrices, linear equations, vector spaces, inner products, geometrical transformation and matrices, eigenvectors and eigenspaces.

Circuit Analysis 1

Dissipative & storage elements, Ohm's & Kirchhoff's laws, resistive circuits, dependent & independent voltage & current sources, solving dc circuits by: direct application of laws, circuit reduction, nodal & mesh analysis, superposition, Thevenin & Norton theorems, maximum power transfer. Sinusoidal waveforms, steady-state ac analysis, active and reactive power in single phase circuits, application of nodal & mesh analysis, etc., for solving ac circuits. Introduction to transient response.

General Physics 2

Dissipative & storage elements, Ohm's & Kirchhoff's laws, resistive circuits, dependent & independent voltage & current sources, solving dc circuits by: direct application of laws, circuit reduction, nodal & mesh analysis, superposition, Thevenin & Norton theorems, maximum power transfer. Sinusoidal waveforms, steady-state ac analysis, active and reactive power in single phase circuits, application of nodal & mesh analysis, etc., for solving ac circuits. Introduction to transient response.

Engineering Graphics

The course provides the undergraduate engineering student with a background in descriptive geometry, orthographic projection, engineering drawing standards and annotation, and computer-aided engineering graphics. Point line and plane relationships in projection; multi-view engineering drawings; auxiliary and section views; basic dimensioning and annotation.

Circuit Analysis 1

Dissipative & storage elements, Ohm's & Kirchhoff's laws, resistive circuits, dependent & independent voltage & current sources, solving dc circuits by direct application of laws, circuit reduction, nodal & mesh analysis, superposition, Thevenin & Norton theorems, maximum power transfer. Introduction to sinusoidal waveforms, steady-state ac analysis, active and reactive power in single phase circuits, application of nodal & mesh analysis, etc., for solving ac circuits.

Introduction to Solid-State Electronics

This course offers an overview to basic concepts of modern physics and the elementary quantum mechanics that are essential to understand basic material structure and properties. Accordingly, a full picture is introduced in crystal structure semiconductor materials, semiconductor fundamentals, energy band structures in crystals and equilibrium and non-equilibrium processes in semiconductor materials. This will lead to a full understanding of the electric behavior of a semiconductor material.

Circuit Analysis 2

The course starts by introducing Transient response of first- & second-order circuits, review & applications of Laplace transform to circuit analysis, RLC circuits and frequency response, resonance, magnetic circuits, the ideal transformer, lossless filters, two-port networks, three-phase circuits, computer applications for circuit simulation, analysis, and design. Lab experiments associated with this course include a mini-project to provide students with design experience.

Differential Equations for Engineers

This course gives the students the ability to solve any ordinary differential equations (ODE) with different types that connect with the engineering applications (electrical, electronic, physical ...). Also, this course makes the students gain good knowledge about boundary and initial value problems.

Electronic Devices

This course introduces the electronic properties of semiconductors, technology, the theories, and practices of the most important electronic devices: p-n junction diodes, p-n junction devices, circuit applications, theory and application of BJT, MOS capacitor and MOSFET, biasing and simple amplifier circuits.

Engineering Computational Methods

The course introduces the fundamental techniques and concepts of numerical computational methods used in engineering. Topics include numeric solution of non-linear equation in one variable, system of linear equations, interpolation, numerical integration, numerical differentiation, and numerical solution of ordinary differential equations. The course is also designed to introduce technical computing using the high-level computational tools provided by Python.

Electromagnetics I

After taking this course, the student will have a knowledge of the electric and magnetic fields with unified treatment, Maxwell's basic equations which enable him to understand other electric courses such as electrical machinery, power system analysis, transmissions of electrical power and communication system courses. Vector analysis, static electric and magnetic fields, Coulomb's, Gauss, Ampere and Faraday's Laws, Maxwell, Laplace and Poisson's equations. Solution of Laplace equation in Cartesian, cylindrical and spherical coordinates are also introduced.

Electronic Circuits

The course starts by introducing multistage amplifiers, differential amplifiers and frequency response of single and multistage amplifiers. The course then focuses on Operational amplifier theory and applications including inverting, non-inverting, summing, difference and instrumentation amplifiers, V/I and I/V converters, integrators and differentiators, comparators and Schmitt triggers. The course ends with discussing oscillators and IC timers. Lab experiments associated with this course include a mini-project to provide students with design experience.

Probability and Statistics for Engineers

This course introduces the statistics and probability theories and their applications in engineering. It covers the data processing and analysis, probability, discrete probability distributions, continuous probability distributions, sampling distributions, statistical inferences, and basics of regression analysis.

Programming for Engineers

This course is an *introduction to Computer Science and Programming in Python* is intended for students with little or no programming experience. It aims to provide students with an understanding of the role computation can play in solving problems and to help students, regardless of their major, feel justifiably confident of their ability to write small programs that allow them to accomplish useful goals. The class uses the Python 3.5 programming language.

Signal Analysis

Introduction to analog and digital signal processing, a topic that forms an integral part of engineering systems in many diverse areas, including seismic data processing, communications, speech processing, image processing, defense electronics, consumer electronics, and consumer products. The course presents and integrates the basic concepts for both continuous-time and discrete-time signals and systems. It addresses the following topics: classifications of signals and systems, basic signal operations, linear time-invariant (LTI) systems, time-domain analysis of LTI systems, signal representation using Fourier series, continuous-time Fourier transform, discrete-time Fourier transform, and Laplace transform.

Introduction to Engineering Design

The course is developed keeping in mind the importance of Engineering Design Process. The students need to improve their written communication skills. Therefore, assignments or in class work will emphasize written communication skills. This may be achieved by asking students to read an article on the web-page and write a summary of the topic discussed in the article in their own words. This course will serve for the “Design Project” course. Classroom activities for creative problem solving, classroom presentations for delivering ideas regarding projects, and case-study examples will be used in this course to prepare students for choosing project ideas and writing proposals incorporating realistic multiple constraints and associated engineering standards.

Analog Communication Systems

The course is developed to provide an introduction to , and understanding of, the basic principles, characteristics, features and limitations of analog communications systems. It demonstrates models and methods that can be used to make informed decisions regarding either the analysis or synthesis of analog signals. The course involves topics such as: Fourier analysis, analog filtering, amplitude modulation, angle modulation, noise and random signals, effect of noise on the performance of analog communication systems.

Logic Design

This course introduces the Number systems, unsigned and signed arithmetic, Boolean algebra, switching functions, canonical forms in both sum-of-products and product-of-sums, representation and simplification of switching functions with K-maps, medium scale integrated circuits (decoders, multiplexers, adders, 7-segment displays), functional description of flip-flops (J-K, D, and T types), analysis and design of sequential circuits.

Advanced Engineering Mathematics

This course introduces the complex variable functions, including analytic functions, integration, series, and residue calculus and transform methods. It provides understanding of conformal mappings, asymptotic expansions, and the study of Cauchy Reimann problems.

Electromagnetics II

The objective of this course is to familiarize students with the basic principles of Electromagnetic Waves, Transmission Lines, and Impedance Matching.

Introduction to Electrical Power Engineering

This course provides basic knowledge about electrical power system from generation to end users. It covers the most important components in power stations, transmission and distribution systems. Also, it covers some important physical theories related to generating the electricity. Topics cover types of power plants, transmission lines, underground cable, transformer, substations and finally distribution system.

Microprocessors

The objective of this course is to teach the basic techniques of design process of digital systems by covering building blocks of digital logic circuits. The main emphasis is on the theoretical concepts and systematic synthesis techniques that can be applied to the design of practical digital systems.

Control Systems

This introductory course in control aims at enabling the students to understand basic concepts of control systems. Discussion on mathematical modeling, transfer function, block diagram, root locus analysis, control system stability, frequency response analysis and controller design will be carried out.

Digital Integrated Circuits

This course understanding of how to perform low and high frequency analysis of BJT and MOS amplifiers, understanding the working principle of operational amplifiers and power amplifiers, understanding of linear digital Integrated circuits and their applications, and understanding the basics of digital circuits (MOS & BJT).

Sensors, Transducers and Measurements

This course provides an introduction to sensors and transducers, their definitions, and classifications. The process of measurement is analyzed and how it is affected by different types of errors and noises and the procedures to eliminate or reduce these elements. Various instruments are introduced and analyzed, PMMC, moving Iron, electro-dynamometer, D' Arsonval meter, AC voltmeters, time and frequency measurement instruments

Engineering Economics and Management

This course aims to cover the basic principles of management, organizational structure, feasibility study, operation management, strategic planning, time management and financial management.

Digital Signal Processing

The course introduces the fundamental concepts of the Discrete-Time signal and systems that form an integral part of engineering systems in many diverse areas, including, communications, speech processing, image processing, defense electronics, consumer electronics. The course covers the following topics: classifications of signals and systems, basic signal operations, conversion from analog to digital, conversion from digital to analog, difference equation, linear time-invariant (LTI) systems, time-domain analysis of LTI systems and signal representation analysis in the frequency domain using the z transform as well as the discrete and fast Fourier transform.

Engineering Standards and Professional Ethics

The course aims at providing the students with the importance and the impact of engineering standards on different engineering aspects. Students will be familiarized with the two important aspects of engineering profession, namely, Engineering Standards and Professional ethics, and their impact on the human life.

Project Design

The objective of this course is to prepare students for engineering practice to work in teams to implement a design project based on the knowledge and skills acquired in their earlier course work. This course provides guidance to the students how to accomplish a complete integrated electrical engineering project within multiple realistic constraints, e.g., economic, environmental, ethical, societal, safety, and health, and incorporating engineering standards, write a technical report and defend their work

Antennas and Propagation

To introduce the fundamental principles of antenna theory, various types of antennas and wave propagation.

Image Processing

This course introduces the fundamental concepts and techniques in basic digital image processing expose students to the current image processing technologies and issues that are specific to state-of-the-art image processing systems. Topics covered include image acquisition, image enhancement, image Restoration, segmentation, edge detection and Morphological Processing. This course makes extensive use of a computational software (MATLAB) as an analysis, design, and visualization tool.

Introduction to Nanoelectronics

The development in electronics has been achieved by size reduction of its devices. However, as electronic devices become close to molecular scale, classical physical copies for device performance must be abandoned and adopt other methods such as quantum mechanics. To design and manufacture the next generation of electronic devices, this course explains the theory of current, voltage, resistance and power from atoms up to bulk electronic device materials. In order to explain the behavior of electrons at nanoscale, we will start an introduction to the principles of quantum mechanics, quantization, the wave-particle duality, wavefunctions and Schrödinger's wave equation. After that we will study the electronic properties of molecules, carbon nanotubes and crystals, including energy band formation and the origin of metals, insulators and semiconductors. The story of electron conduction will be studied starting with ballistic transport and ending with a derivation of Ohm's law. Then will introduce the bulk FET transistors and compare it with ballistic.

Optoelectronics

Understanding basic laws and phenomena in Optoelectronics, Optical fiber and Lasers. Theoretical and practical preparation of students to acquire and apply knowledge and skills in Optoelectronics, Optical fiber and Lasers.

Advanced topics in Electronics and Communications Engineering

This course aims at providing a clear, concise, and practical guide for students to design and develop real-world electronics and communications systems. The curriculum will be supported at the advanced graduate level to fill the marvelous gap between the systems discussed in the current curriculum and the ones that exist and are proposed in the literature. This course gives the flexibility of teaching state-of-the-art subject matter in electronics and communications engineering. The course may include topics like energy harvesting, flexible electronics, microelectromechanical systems (MEMS), smart grid systems, machine learning, Nano-and Micro-patch antennas. The advanced topics in the course will be introduced to students by a department member with an excellent field of expertise.

Automation and Robotics

This course will provide the students with the introduction on the automation and robotics. This course covers kinematics of robots: position analysis, differential motions and velocities, dynamic analysis and forces, trajectory planning, motion control system, actuator, drive and sensor and robot vision and fuzzy logic control.

Computer and Communications Networks

This introduces the fundamental concepts of computer and communication networks. This course covers network fundamentals, link types, link parameters, node Characteristics, traffic source Characteristics and network performance.

Digital Control

This course introduces the fundamental concepts of digital control systems. It covers modeling of digital control systems, stability of digital control systems, analog control system design, digital control system design, state-space representation and optimal course.

Embedded Systems

The course objective is to give the building-blocks and the underlying scientific principles of embedded systems. The course covers both the hardware and software aspects of embedded processor architectures, along with operating system fundamentals, such as virtual memory, concurrency, task scheduling and synchronization.

Information Theory and Coding

This course reviews concepts of fundamentals of Probability Theory, Conditional Probability, and Bayes Theorem. The concepts of Measure of Information and Source Coding for efficiency improvement are covered in detail. Discrete Memoryless Channel, Mutual Information, and Channel Coding for better reliability are explained. Students learn how to analyze the 'Information-Carrying Capacity' of a communication channel.

Introduction to Artificial Intelligence

This course contains formal introduction to AI, intelligent agents, problem solving, knowledge and reasoning, uncertain knowledge and reasoning, learning, applications in electrical engineering.

Modeling and Simulation for Engineers

This course introduces the concepts of modeling and simulation for engineers. The course covers elements of modeling discrete systems, modeling of computer systems, simulation languages, Laplace Transform and analysis using statistical methods.

Modern Wireless Communication Systems

The course addresses the fundamentals concepts of wireless communications and provides an overview of The cellular concept; Cell splitting & sectoring; Cell coverage; Mobile radio propagation; Path loss models; Shadowing; Statistical fading models; Capacity of fading channels; Multiple access techniques; Wireless networking; Modern wireless systems and standards. Introduction to satellite communication; Basic orbit maneuver; Satellite orbit geometry and types (LEO, MEO and GEOs); Orbit characteristics; Propagation characteristics; Frequency bands; Channel modeling, Satellite antennas and patterns; Earth stations; Modulation and multiple Access techniques Satellite uplink and downlink; analysis and design; Frequency plan; Carrier and transponder capacity, Modern satellite systems and applications.

Radio Frequency Integrated Circuits (RFIC) Design

This course introduces the basic concepts and fundamentals of RF IC design. The course covers RF Concepts: non-linearity, noise sensitivity, dynamic range, passive RLC networks, smith charts modulation; RF filters: design and implementation of micro strip line filters, Kuroda identities; architectures: receivers, transmitters; and Circuits: low noise amplifiers, mixers, voltage-controlled oscillator.

Solid State Devices

This course introduces the fundamental concepts of solid state devices with an emphasis on semiconductor physics: crystal structure, equilibrium, and non-equilibrium processes in semiconductors. The course covers the physics of p-n junction diode, Bipolar Junction Transistor (BJT), Metal-Oxide-Semiconductor (MOS) capacitor, and Field-Effect Transistor (FET).

Very Large-Scale Integrated Circuits (VLSI)

This course will provide students with the ability to design state-of-the-art digital CMOS circuits. The course covers CMOS DC characteristics, CMOS fabrication, CMOS AC characteristics, CMOS layout and design rules, power, charge sharing, and capacitance, and design style and variations.

Power Electronics

This course provides the students concepts of developing power electronic systems. It covers the controlled and uncontrolled rectifiers, single and 3-phase rectifiers, transistorized DC choppers, transistorized inverters, applications of various power electronic devices. Analysis and design of high-power control circuits using power electronic devices.

The Electronics & Communications Engineering department offers four labs facility, designed to meet all the requirements essential to fulfill the practical aspect of the engineering courses offered in the program. The labs are as follows:

- Communication & FPGA LAB
- Circuit Lab
- Instrumentation & Control LAB
- Physics Lab

Communication and FPGA Laboratory

This lab is designed to provide the students, firsthand visual and practical experience using state of the art platform of National Instrument Devices and mitigating the lack of software skills of the students by introducing them to lab View environment. This lab is also equipped with Emona Datex & Op-Amp kits modules compatible to NI platform giving the students a sense of integration. This lab also offers the KI CIC-560 FPGA Development Board introducing the students with robust digital design paradigm.



Electric Circuits Laboratory

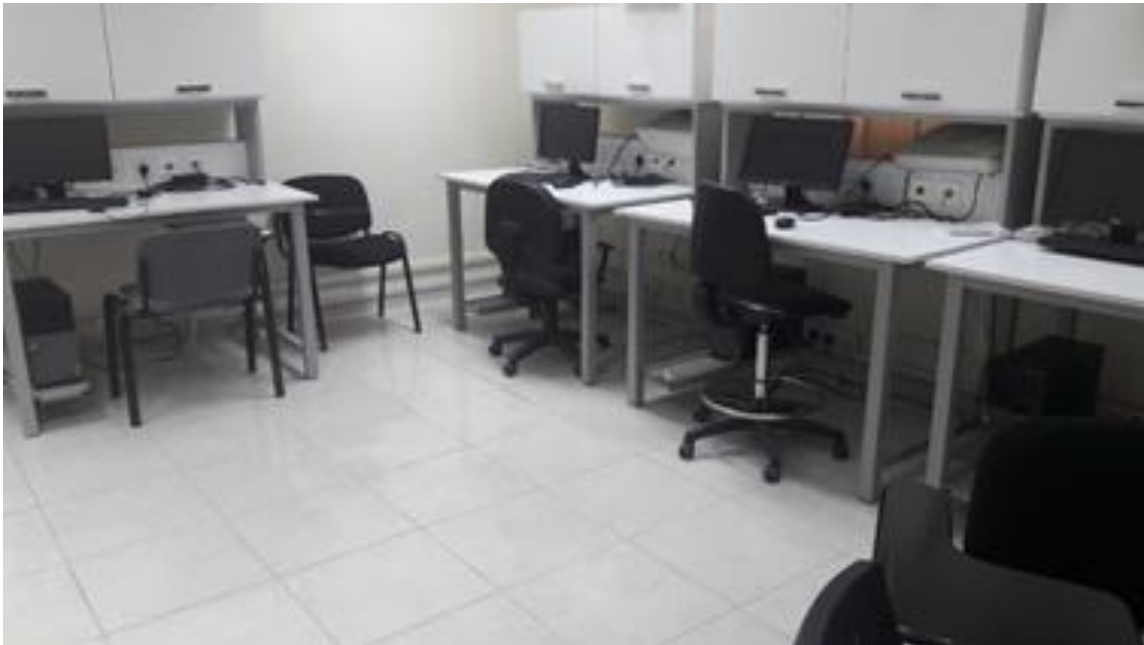
The circuit Lab is designed as a traditional lab which gives the students a physical sense of why & how to use different equipment' s for the analysis of circuits. It also provides the practical realization of theoretical and mathematical models related to circuit theory. This lab is equipped with basic devices such as DC power supply, function generator, Digital Multimeter, oscilloscope etc.



Instrumentation, Sensors and Control Laboratory

This lab is designed to provide the students, firsthand visual and practical experience using state of the art platform of National Instrument Devices and also mitigating the lack of software skills of the students by introducing them to lab View environment. This lab fully meets the practical requirements related to Control and Sensors courses. It is equipped with Sensor & Transducer modules compatible to NI platform giving the students the freedom of integration of different modules.

Instrumentation, Sensors and Control Laboratory (Continued)



Physics Laboratory

The Physics Lab is a traditional lab gives the students the physical sense of how to use different equipment' s related to Physics course. It provides the practical realization of theoretical and mathematical models related to Physics course. This lab is equipped with basic devices such as DC power supply, function generator, Digital Multimeter, oscilloscope etc.



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Program Handbook

Admission and Registration

General Conditions Admission

- Be a Saudi or the child of a Saudi mother. (Non-Saudis can apply through scholarship programs.)
- Have high school degree or any equivalent national or international degree.
- Hold a high school certificate (or equivalent) that is no older than 5 years. For the Joint First Year (Medical Stream), the secondary school certificate must be no older than 2 years.
- Pass required admission tests: General Aptitude Test (GAT), Summative Assessment, and Standardized Test of English Proficiency (STEP), conducted by the National Center for Assessment, if required by the relevant department.
- Pass any test/interview as required by the college.
- Have not been dismissed from UQU or any other university for academic or disciplinary reasons.

Transfer to the Department

- Be a Saudi national or the child of a Saudi mother.
- Be registered at a recognized college or university.
- Have completed at least one semester at his university.
- Have not completed more than 6 semesters at their university (so that they will study at least 60% of their course at UQU).
- Not be dismissed for disciplinary reasons from the university from which they are transferred.

Internal Scholarships

- Internal scholarships are educational grants dedicated for non-Saudi students with legal residence in the Kingdom. Applications are submitted to the Unified Admission Portal by the end of every academic year. Students with high grades are nominated for scholarships, and their names are subsequently submitted to the Ministry of Education for approval. Pending the approval process, which can take up to six months, the Deanship of Admission and Registration website shall release the names of shortlisted candidates who can then complete the admission procedures.

The Registration Department in the university shall prepare a plan for each semester, before the start of the semester, with the academic departments, preparing student schedules, and another plan dealing with schedule amendments. It also follows up on registration matters with academic departments and colleges, and calculates the students' GPA scores.

Duties of the Registration Department

- Preparing study schedules for all university colleges, in coordination with the colleges.
- Arranging the placement of courses, according to the available classrooms.
- Linking the teaching load of faculty members to their courses, in coordination with the academic departments.
- Making a preliminary trial automated registration, followed by the final automated registration.
- Participating in preparing the academic calendar, focusing on important registration dates.
- Setting time plans for student registration, in proportion to the student's academic specialization and according to the student's academic status, grade point average (GPA), and academic level.
- Setting the registration mechanism in a way that suits the colleges and academic departments.
- Following up the processes of deletion, addition and amendment through the university website.
- Following up the processes of deletion, addition and amendment through the academic departments.
- Providing the necessary services to colleges, departments, and male and female students.
- Preparing pre-registration statistics.
- Following up colleges with regard to updating study schedules, extracting feedback, and notifying the departments thereof, as well as developing appropriate proposals to address this feedback.

Duties of the Registration Department (Continued)

- Registering the schedules of the Joint First Year students, according to the appropriate groups.
- Preparing final exam schedules.
- Arranging the placement of final exams in the appropriate halls, as available.
- Registering off-plan courses and equalizing them.
- Canceling, merging or changing an appointment, or allowing a faculty member to change a section, in coordination with the academic departments.
- Registering visiting students from other universities after issuing a university number from the Admission Department, according to the applicable rules.
- Participating in closing the current concluding semester, calculating the GPA for students, and activating the next semester.
- Communicating with members of the Academic Coordination Committee.

A student may know their education level to which they belong through the Regular Attendance Form via the electronic portal of each student.

Amendment

The Vice Deanship of Registration Affairs registers students preliminarily before the beginning of the academic year, as it assumes that all students have passed their study courses successfully. If proven otherwise, at the conclusion of the academic year the system automatically deletes the registered curricula, the requirements of which were not fulfilled.

Hence the need for the registration amendment week, to enable students to re-design their preliminary schedule to be in accordance with their study plan and the number of hours they are allowed to register, subject to the approval of the department the student belongs to and the department providing the curriculum.

Amendment Procedures

- Through the electronic services provided for students via the electronic portal, they can amend their schedules, e.g. adding a subject, replacing it with another subject or changing a major.
- In case a student cannot amend their schedule through their electronic portal, they go to their academic advisor first to clarify what they want. After studying the case and the advisor's acceptance, they approve what the student wants via the forms of deletion/addition and changing majors that the Admission and Registration Deanship provides.
- Students go to their department with their amendment request. The department may execute same through the addition/deletion screen and change the major according to what is available for the department. In case the department is unable to execute the operation, the student's paper is referred to the faculty's coordinator to review their status and the possibility of executing their request.

Amendment Procedures (Continued)

- The student is entitled to replace any curriculum with another as long as the credit hours after amendment are neither more nor less than the hours registered in the preliminary registration, which is in line with their GPA. Also, they have to pass the requirements of this curriculum.
- If the subject required to be added belongs to the student's department, the student is to refer to their department to handle the issue. There is no need to address the faculty coordinator or the Admission and Registration Deanship, as the head of departments have the authority to handle any problem.
- If the subject required to be added is mandated by the faculty or by the university, the student is to obtain the approval of the department offering the subject first, then go to the coordinator of the faculty offering the subject to register the subject.
- If the subject required to be added is an extracurricular one, the student needs to obtain the approval of their department first, then obtain the approval of the department offering the subject, then submit the form to the faculty coordinator.
- Students must commit to registering for subjects at low levels first and subjects from outside the faculty and not mess with their study plan.

Approval of Amendment

- Introducing a subject or a major.
- Requesting to exceed the designated subject after obtaining the approval of the subject professor.
- Exceeding the required subject matter, in special cases that the head of department and student academic advisor decide.
- Exceeding the load by more than 3 hours, subject to the approval of the department if the student was a graduate.

Special Cases of Amendment

- Registering from outside the campus the student studies at: for instance, if a student from Jamoum University College want to study a subject at Al-Leith or other campuses (The authority of the faculty coordinator does not supersede that' s of the department offering the subject).
- Adding curricula from outside the faculty the student was enrolled in.
- The faculty coordinator takes these cases together and coordinates with the Acceptance and Registration Deanship to execute them on a daily basis after ensuring that the student has obtained the necessary approvals to study the subject as per the Adding Subjects Form that can be found on UQU website, a copy enclosed herewith.

Approved Amendment

To guarantee student rights, the preliminary schedule of the student is not approved. Only the printed schedule after the first week is approved.

Adding a Subject

A student may add any subject to their schedule as per the following conditions:

- That the student has passed the subject requirement successfully
- That the class a student wants to add is still available and has not already accepted the maximum number of students
- That the maximum registered hours in the student' s schedule after addition is less than or equal to the maximum hours allowed for a student to register.

Taking into consideration that all addition operations are available at the departments and that the Admission and Registration Deanship does not have the authority to add any class. Its role in this regard ends with the preliminary registration.

Hence, the only entity assigned to serve students is the academic department they belong to. Students are to take into account the situation of the department as regards available capabilities, available faculty staff members or classes, for no department at any university is capable of fulfilling the wishes of all students, especially when it comes to the difference in their study levels.

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Program Handbook

Students Rights and Duties

Student' s Rights

- Of the student' s main rights are to protect their dignity, treat them well and respectably and fairly.
- Student is provided by an appropriate study environment in order for the student to achieve the educational objectives and have them gain the knowledge and science which feed their souls and mind and protect them against corrupt elements.
- Student has the right to choose the specialty suiting their desires, capacities and qualifications according to ratings, conditions and places available at the university.
- Study must be based upon an accredited study plan outlining the hours, levels and description of the courses, as well as the requirements necessary for graduation.
- Student has the right to postpone study for having a legal excuse accepted by the college council according to regulations and mechanisms; and postponing does not exceed two straight semesters or three non-straight semesters.
- Student has the right to be notified with their failing in the semester results notice or through their department or via the academic portal.
- Student has the right to delete and add and withdraw from a course according to the regulations and procedures which the Admission and Enrolment Deanship issues and the department where they belong.
- Student has the right submit an apology from a semester for a legally-accepted excuse to the head of the department within the maximum of the end of the semester tenth week.
- Academic staff members teaching the student adhere to the study plan record when the study starts. This record includes the course objectives, topics and the skills to be earned.
- The academic staff member is obliged to attend the lectures and do tests as scheduled, and to go through the course theoretically and practically, and not to arrive lectures late or go beyond its set time or encroach upon break time; and to notify about any emergencies such as changing lecture time or canceling it.

Student' s Rights (Continued)

- Academic staff member is obligated to determine and announce about the office hours dates and the location of their office; and they are also obliged to spend these hours meeting them and answering their inquiries.
- Student has the right to benefit from the medical centre facilities and services according to regulations.

Student' s Responsibilities

- Student should respect the university' s rules and regulations, and avoid committing any irregularity; otherwise they are to be exposed to the legal penalties that could have them dismissed altogether.
- Student should honorably represent their university at the conferences, seminars and internal and external participations.
- Student should take out a university card within at least a month from joining the University; and the card should be on them during their being at the University. They show it to whoever asks for it especially the security staff.
- Student should respect all the various University' s staff and its visitors; and treat them politely.
- Student should show respect towards the academic staff members and hold them in high esteem and pardon them when they enter or leave the classroom or laboratory among others.
- Student should protect the University' s facilities, laboratories and equipment, and not damage them and not scribble on its walls and doors and benches.
- Student should show seriousness and diligence in terms of academic achievement; and they should hold to their study plan and attend lectures.
- Student should maintain the cleanliness of the classrooms, laboratories and libraries.
- Student should avoid cheating and counterfeiting, and stay clear of them; and they should adhere to the rules regulating exams.

Academic Advising is considered one of the most significant orientation providers needed by students during university education. It aims to support and advise students to benefit from their self-abilities, develop their skills and encourage them to achieve academic distinction and innovation. In addition, the advising process helps students to complete study and graduation within the specified academic years. At this stage, students will be qualified with scientific experiences and practical skills to be good outputs for the labor market.

The academic advising process mentors students to achieve the best results. It also helps them adapt with university environment and seize available opportunities. In this context, all staff members should be responsible for academic advising. A university professor is regarded as his/her students' mentor, offering them help and advice. The professor should also alert students to mistakes and problems they should avoid in their educational path. This should take place even when he/she is not the main mentor designated by the concerned department on a regular basis. Therefore, advising is the responsibility of all staff members.

Who is an academic advisor?

The academic advisor is mainly responsible for mentoring students during their educational path and helping them choose the thesis subject and write the research plan.

Advising Regulations

Article Forty one: Every postgraduate student shall be provided by a scientific advisor at the beginning of his/her enrollment in the program. The advisor shall mentor the student in his/her study, and assist him/her in choosing the thesis subject and preparing the research plan. This shall be in accordance with the regulations approved by UQU Council, based on recommendation by the Council of the Graduate Studies Deanship.

Executive procedures

- The departmental councils shall distribute the tasks of scientific guidance of new students among staff members. This shall be within a period not exceeding four weeks from the beginning of study. A copy of such distribution shall be sent to the Deanship.
- The scientific advisor shall mentor the student in preparing his academic schedule and follow up his thesis/research project subject registration steps.
- The advisor shall deliver a detailed report on the student's progress to the concerned department head at the end of every semester. A copy of such report shall be sent to the Dean.
- It is preferable that the advisor be the supervisor of the student's thesis following registration unless it contradicts his specialty.

Academic Advisor Tasks (General)

- Educating the student about the rights and duties stipulated in the Unified Regulations of Postgraduate Studies.
- Preparing students to familiarize themselves with the university study system.
- Providing students with correct information, educational policies and study programs.
- Enhancing academic achievement of students, raising their abilities and overcoming the obstacles they face during their studies.
- Alerting students of the academic failure problem and the method to avoid it.
- Providing advice and assistance to graduate students facing academic problems.
- Guiding, taking care of and following up failing students in order to raise their academic level.
- Paying attention to, motivating and spreading the innovations of excellent and talented students.

Academic Advisor Tasks (Specific)

- Making a special file for each student, including his data and academic record, in addition to his schedule and all his registration processes for each semester.
- Pointing out the importance of the role of the academic advisor to the student, and the necessity of following his instructions, and communicating with him continuously to pass the academic period with the highest grades.
- Clarifying the role of the student in the success of the guidance process, as the academic advisor is a means of guidance and the student is the one who implements the advice to achieve the desired goal, namely, to obtain the highest degree of excellence.
- Introducing the student to the curriculum plan of the department, including the basic and elective courses and their requirements, and how to register them and determine the academic load.
- Emphasizing that the student has to adhere to the dates set out in the university academic calendar when conducting the various registration processes (add, delete, amend a course, withdrawal from a course, and others).
- Supervising the student fully when the various registration forms are being filled out, and following up the student's procedures while complying with the executive rules and regulations for this.
- Hold a second meeting with the student after the mid-year exams to discuss and overcome any obstacles that he encountered during his study.
- Submitting a report to the head of the department at the beginning of each semester showing the cases of at-risk students, if any, and finding solutions for their problems.

Responsibilities and Role of Students

- The student is mainly responsible for his/her academic performance. The role of the advisor is only to guide and help the student to overcome the difficulties and problems he/she may face.

Responsibilities and Role of Students

- The student is mainly responsible for his/her academic performance. The role of the advisor is only to guide and help the student to overcome the difficulties and problems he/she may face.
- The student shall review and understand the Unified Regulations of Postgraduate Studies.
- The student shall be aware of the timetable of the Deanship of Graduate Studies and to review it every semester, in order to know the dates for registration, postponement, apology, etc.
- The student shall be committed to meet the academic advisor determined by the department and inform him of all the required information and data.
- The student shall implement the advisor's recommendations and meet him regularly according to the agreed dates.
- The student shall inform the advisor of any changes that may affect his/her program or performance.

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Study Regulations and Tests

Attendance Regulations

- A regular student should attend all classes and laboratory sessions. A student may be discontinued from a course and denied entrance to the final examination if his attendance is less than the limit determined by the University Council. This limit cannot be less than 75% of classes and lab sessions assigned to each course during the semester. A student who is denied entrance to the examination due to excessive absences will be considered as having failed that course with a DN grade.
- If the number of unexcused absences for a student exceeds 20% of the lecture and laboratory sessions scheduled for a course, then he is not allowed to continue in the course or take the final examination and shall be given a DN grade by the course instructor with the department's chairman approval.
- The college council - or whatever body it delegates its authority to - may exempt a student from the provisions of Article Nine and allow him to attend the final examination if he provides an excuse acceptable to the council. For such an exemption provided by the University Council, the minimum attendance requirement is not less than 50% of the lecture and laboratory sessions scheduled for the course.
- If the attendance of a student is less than two thirds (2/3) of the lecture and laboratory sessions scheduled for a course, then he is not allowed to continue in the course or take the final examination and shall be given a DN grade by the course instructor with the approval of the department's chairman.
- The college council - or whatever body it delegates its authority to - may revoke the DN grade assigned to the student in a course, allow him continue in that course and take the final examination if he furnishes an excuse acceptable to the council, provided that his total attendance in the lecture and laboratory sessions is not less than 66.7%, and his unexcused absences do not exceed 20%, as the Implementation Rule for Article Nine applies for his case.

Final Examination Attendance Regulations

- A student who fails to attend the final examination will be given zero in that examination. In this case, his course grade will be calculated on the basis of the class work score he earned in the course.
- If a student fails to attend the final examination of any of his scheduled courses due to circumstances beyond his control, the college council, in exceptional cases, may accept the excuse and arrange a make-up examination for the student within a period not exceeding the end of the next semester. In such cases the course grade will be given to the student after the make-up examination.
- The student must furnish the excuse to his instructor and request a make-up examination before the end of the next regular semester.
- The course instructor submits his report to the department chairman for presentation to the departmental council and then the college council.
- Under exceptionally pressing circumstances, the college council may accept the student's excuse and give him a make-up examination before the end of the next semester. The final grade will be given to the student after that make-up examination.

Withdrawal Regulations

- A student may be allowed to withdraw for a semester and not be considered as having failed the courses if he furnishes an acceptable excuse to the authorized body as determined by the University Council, during the time period specified in the implementation rules approved by the University Council. The student is given a "W" grade for the courses, and the semester is counted towards the period required to complete graduation requirements.
- A student may withdraw from a course or a number of courses in accordance with the implementation rules approved by the University Council.

Withdrawal Regulations

- The Deanship of Student Affairs studies all applications for withdrawal for the semester. If the request is approved, withdrawal procedures are completed at the Deanship of Admissions & Registration, and the student's enrollment is suspended.
- If a student has received any course grades before submitting an application to withdraw for a semester, all such grades are retained in his academic record.
- A student is not allowed to withdraw for more than two consecutive and three nonconsecutive semesters during his entire course of study at the university. The Rector of the University, or to whomever he delegates his authority, may exempt a student from this provision. The period of interruption of study is counted towards the period required to complete graduation requirements.
- A student may withdraw from a course or a number of courses during the periods specified in the academic calendar that is approved by the University Council.
- If a student withdraws during the 15th week, Article Eleven applies.
- A Preparatory Year student is not allowed to draw from any course or a number of courses included in the Preparatory Year Program. However, if he wants to withdraw from all courses, the withdrawal system/schedule indicated in the Preparatory Year academic calendar approved by the University Council.

Regulations of Interruption and Suspension

- A student may submit an application for suspension of enrollment, for reasons acceptable to the college council, provided the suspension period does not exceed two consecutive semesters, or a maximum of three non-consecutive semesters, during his entire course of study at the University. Otherwise his enrollment status will be canceled. However, the University Council may, at its discretion, make exceptions to this rule, and the suspension period will not be counted towards the period required to complete graduation requirements.
- The Deanship of Admissions & Registration studies and makes decision on all applications for suspension of enrollment for the semester. Then the student' s enrollment is suspended.
- If a student interrupts his studies for one semester without submitting an application for suspension of enrollment, his enrollment status at the University will be canceled. The University Council however, may at its discretion, cancel a student's enrollment status if he discontinues his studies for a period of less than one semester. As for student studying by association, his enrollment is cancelled if he becomes absent from all final examinations for the semester without presenting an acceptable excuse.
- A student is not considered to have interrupted his studies during the terms he spends as a visiting student in other universities.

Regulations of the Re-enrollment

- A student, whose enrollment status has been canceled, may apply for re-enrollment with the same University ID 'number and academic record he had before his suspension, provided: a. that he applies for re-enrollment within four regular semesters from the date of cancellation of his enrollment status; b. the relevant college council and concerned departments agree on his re-enrollment c. that four or more semesters have lapsed since cancellation of his enrollment, in which case the student can apply to the University for admission as a new student without considering his old academic record, if he fulfills all the admission requirements for new students. The University Council may exempt a student from this provision in accordance with the regulations issued by the Council; d. that he has not been re-enrolled previously. Under exceptionally pressing circumstances, the University Council may exempt a student from this condition; e. that he was not dismissed for academic reasons.
- A suspended student should submit his re-enrollment application to the Deanship of Admissions & Registration, during the specified period by the Deanship, before the beginning of the semester in which he intends to resume study.
- The Deanship of Admissions & Registration coordinates with the relevant college council in order to arrive at a decision regarding the application.
- A student who interrupts his studies for more than four semesters may apply for admission as a new student if he fulfills all admission requirements for new students. No credits will be transferred from his previous record, though such credits will appear in his new academic record.
- This article does not apply to students who are dismissed.

Dismissal from the University will occur in the following circumstances.

- a) A student will be dismissed if he obtains a maximum of three consecutive academic probations as the result of his cumulative GPA being less than the GPA needed for graduation as per Article 19 of these regulations. Following the recommendation of the college council, the University Council may allow the student a fourth opportunity to improve his cumulative GPA by taking additional courses.
- b) A student will be dismissed if he fails to complete the graduation requirements within a maximum additional period equal to one half of the period determined for his graduation in the original program period. The University Council, however, may exempt the student from this restriction and give him the opportunity to complete the graduation requirements within an additional period of maximum duration equal to that of the original program.
- c) The University Council, in exceptional cases, may address status of the students on whom the provisions of (a) and (b) above apply, and give them an additional opportunity not exceeding two semesters to complete the graduation requirements.

- On the basis of the recommendation of the department council offering the course, the college council determines the class work score as being not less than 30% of the course total score.
- The class work score is evaluated either by: (a) oral and practical examinations, research, other class activities or some or part of all these and at least one written examination; or, (b) at least two written examinations.
- Based upon the recommendation of the department council offering the course, the college council may include practical or oral tests in final examination of any course, and allocates percentage to these tests as part of the final examination score.
- Upon the instructor's recommendation, the council of the department which teaches the course may allow the student to complete the requirements of any course during the next term. In such an event the grade IC will be recorded for the student in his academic record. IC grades are not included in the calculation of the semester and cumulative GPA until the student obtains his final grade in the course by completing all the requirements. If no change has been made in the IC grade after the lapse of one semester, the IC status will be changed to an F grade which will be included in the calculation of semester and cumulative GPA.
- The course instructor may allow the student to complete the course requirements during the following term if there are exceptional circumstances which are beyond the student's control.
- The course instructor assigns an IC grade for the student and submits a report to the department chairman indicating the reasons and justifications for assigning the IC grade, and identifies the work and the time required to complete the course requirements.
- The student must complete the course requirements by the end of the next regular semester. However, exceptions may be made in the following cases: (a) A student who attained an IC grade in the co-op program may, with the approval of the department chairman, extend completion of the course requirements for one additional regular semester. (b) A student who attained an IC grade in a course in the semester preceding the co-op program may, with the approval of the department chairman, extend completion of that course requirements within a maximum period of one regular semester after returning from the coop program.

- When the student completes the course requirements within the specified period, the course instructor changes the student grade from IC to the new earned grade. The instructor also informs the Deanship of Admissions & Registration of the grade change within this period thru the department chairman concerned.
- The Deanship of Admissions & Registration changes the grade to F and informs the student, course instructor and department chairman accordingly if the grade has not been changed by the instructor within the specified period.
- A student cannot repeat a course in which he previously earned an IC grade and the said grade has not been changed.
- If a student has an IC grade, this results in the suspension of the student's academic standing during that semester. This also includes the suspension of distinction status.
- A student is not allowed to register for a course wherein he earned an IC grade in the prerequisite(s) of that course.
- Courses involving symposia, research, field work, or of a practical nature, may be excluded from some or all the rules following a decision by the college council and the recommendation of the department council teaching the course. The college council identifies alternate ways to evaluate the student's achievement in such courses.
- If any course of a research nature requires more than one semester for its completion, the student will be assigned an IP grade, and after the completion of the course, the student will be given the grade he has earned. However, if he fails to complete the course on time, the department council teaching the course may approve the assignation of an IC grade for this course in his record.

- The grades a student earns in each course are calculated as follows:

Marks out of 100	Description	Abreviation	Grade Points
95-100	Excellent (High)	A+	4
90-95	Excellent	A	3.75
85-90	Very good (high)	B+	3.5
80-85	Very good	B	3
75-80	Good (high)	C+	2.5
70-75	Good	C	2
65-70	Satisfactory (high)	D+	1.5
60-65	Satisfactory	D	1
Less than 60	Fail	E	0

- The student's final course grade will be one of the nine levels mentioned in the Article and his grades will be calculated in accordance with this distribution. The course instructor may consider other known assessment methods such as the grade average and the standard deviation in determining the student's end-of-course grade which reflects his achievement in the course.
- The grade AU will be assigned to students who attend a course as auditors without being given any grades, regardless of their performance in the course. The effect of this assignment on the student's cumulative or semester grade is the same as the grade "no grade pass" or NP. The instructor informs the Deanship of Admissions & Registration if the student is absent for more than one third of the classes, in which case the course will be eliminated from his record.
- The grades "No grade-Pass (NP)" or "No grade-Fail (NF)" are assigned for courses offered on the basis of pass or fail. 4. If a student is registered in Cooperative Program in summer semester and is assigned an IP grade in it, the IP grade will be changed to: a. NP grade, if the student passes the Cooperative Program. b. F grade, if the student fails the Cooperative Program. 5. The grade "Withdrawn with Pass (WP)" or "Withdrawn with Fail (WF)" is given in accordance with Implementation Rules for Article 13.

- In accordance with the requirements of Article 19, and based on the cumulative Grade Point Average achieved by a graduating student, his graduation rank is assigned to one of the following :

	Rank	Range of Cumulative GPA	
		Out of 5.00	Out of 4.00
1	Excellent	4.50 - 5.00	3.50 - 4.00
2	Very Good	3.75 - less than 4.50	2.75 - less than 3.50
3	Good	2.75 - less than 3.75	1.75 - less than 2.75
4	Pass	2.00 - less than 2.75	1.00 - less than 1.75

- First honors will be granted to graduating students who achieve a cumulative GPA of 4.75 - 5.00 (out of 5.00) or 3.75 - 4.00 (out of 4.00). Second honors will be granted to graduating students who achieve a cumulative GPA of 4.25 - less than 4.75 (out of 5.00) or 3.25 - less than 3.75 (out of 4.00). In order to be eligible for the first or the second honors the student: (a) must not have failed in any course at the university he is currently attending or any other university; (b) must have completed all graduation requirements within a period of duration ranging between the maximum and minimum limits for completing the program of study in a college; (c) must have completed 60% or more of the graduation requirements at the university from which he graduates.
- Third honors will be granted, at the time of graduation, to students who achieve a cumulative GPA of more than 3.00 (out of 4.00), and the conditions for offering first and second honors do not apply. However, they must fulfill the terms of paragraph (b) and (c) of Article 30.

- The provisions of (a) of Article 30 do not apply to a student who has failed in any Preparatory-Year course.
- At the end of each semester, the Deanship of Admissions & Registration records the names of distinguished students on the University distinction list, on the basis of their semester GPA and the quality points earned in this semester, as follows:

Distinction	Requirements	
	Semester GPA	Quality points
First Distinction	3.75 - 4.00	60 or above
Second Distinction	3.50 - 3.74	56 or above
Third Distinction	3.00 - 3.49	48 or above

- A student earns the rank of 'Excellent' for an academic year if he achieves one of the distinction ranks of paragraphs 3, in both the first and second semesters of that year.
- A student receives his distinction reward remuneration in the semester in accordance with the Regulations for Financial Affairs in the Saudi Universities.



Program Handbook

Complaints and Grievances

- The student must first raise his case in writing to the head of the department and accurately detail the history of the grievance.
- It is required that when the
- It is required that the grievance is submitted to the head of the department, the subcommittee of the college or institute, or the permanent committee for the protection of student rights within a period not exceeding one semester of its occurrence.
- If the grievance is against the head of the department or the deputy of the department, it is submitted directly to the college subcommittee.
- If the grievance is against the dean or dean of the college or institute, or one of the representatives of colleges or institutes or its agencies, it is submitted directly to the Permanent Committee for the Protection of Student Rights in the university.
- If the grievance is in the summer semester, it is submitted directly to the Permanent Committee.

