**Student ID:** H00540202

# **Undergraduate Programs**

Cı	redential	Program Major	Concentration	Cumulative GPA	Academic Standing	Honors	Status	Award Date	Campus
	Bachelor	Electrical Engineering Technology		3.98	Good Standing (GS)		Active Student		HCT - Ras Al- Khaimah

Subj	No	Course Title	Credit Grad	e Subj	No	Course Title	Credit Grade
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# Undergraduate 202310- Fall 2023

202310-	Fall	2023
		-0-0

EGN	1133	Design Thinking in Technology	3.00	Α
MTH	1113	Statistics for Engineering	3.00	Α
MTH	1203	Calculus I	3.00	Α
PHY	1103	Phys. of Mechanics and Motion	3.00	Α

Semester GPA : 4 Semester Credits : 12.00

# 202320- Spring 2024

AES	2003	Arabic for Non-Native Speakers	3.00	Α
EGN	1001	Engineering Workshop	1.00	B+
LSS	1003	Life and Future Skills	3.00	Α
LSS	1123	Basic Research Methods	3.00	Α
MTH	2103	Calculus II	3.00	Α
PHY	1203	Phy of Electricity & Magnetism	3.00	Α

Semester GPA : 3.96 Semester Credits : 16.00

# 202410- Fall 2024

ELE	2114	Electrical Circuits	4.00	Α
ELE	2181	Circuit Lab	1.00	Α
ELE	2213	Digital Circuits	3.00	Α
ICT	2013	Computational Thinking and Cod	3.00	Α
LSC	2193	Applied Skills Capstone	3.00	Α

Semester GPA : 4 Semester Credits : 14.00

# 202420- Spring 2025

AES	2033	Islamic Culture	3.00	ΙP
EGN	3212	Economics for Engineering	2.00	ΙP
ELE	2303	Power Generation& Transmission	3.00	ΙP
ELE	2314	Principles of Machines & Power	4.00	ΙP
ELE	2403	Electronics I	3.00	ΙP
MTH	2503	Intro to Diff. Equations	3.00	ΙP

Semester GPA : Not Available Semester Credits : 18.00

Code	Term	Total		
VOLH-Volunteer Hours	202308	061		
VOLC-Total Volunteer Hours		0061		
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# **Grading System for Undergraduate Credentials**

	AY 2015 - to present	AY 2008 - 2014	AY 2007 - 2008	AY 2006 - 2007	AY 2002 - 03 to end of 2005 - 06	AY 1992 - 9 end of 200	
Grade	PTS	PTS	PTS	PTS	PTS	PTS	
A+	-	-	4	4	-	-	
Α	4.0	4	4	3.75	0	o	
A-	3.7	3.7	3.50	3.50	-	-	
B+	3.3	3.3	3.25	3.25	-	-	
В	3.0	3	3	3	0	o	
B-	2.7	-	=	-	-	-	
C+	2.3	2.3	2.75	2.75	-	-	
С	2.0	2	2	2	0	0	
C-	1.7	-	-	-	-	-	
D+	1.3	-	-	-	-	-	
D	1.0	1	1	1	0	-	
F	0	0	0	0	0	О	
	AY 1988 - 89 to end of 1991 - 92 only						
С	C Complete Indicates that the student has completed the course requirements						0
D	Distinction	Indicates that the st	ndicates that the student has completed the course requirements with Distinction				
I	Incomplete	Indicates that the st	udent has not complet	ted all course requireme	nts		0

# **Grading System for Graduate Credentials**

6 /						
AY 2015 -	to present	AY 20	12 - 2014	AY 2008 - 09 to end of 2011 - 12		
Grade	PTS	PTS	Description	Grade	PTS	
Α	4.0	4	Distinction	Α	4	
A-	3.7	3.7	Distinction	A-	3.7	
B+	3.3	3.3	Merit	B+	3.3	
В	3.0	3	Merit	В	3	
B-	2.7	-	-	B-	2.7	
C+	2.3	2.3	Pass	C+	2.3	
С	2.0	2	Pass	С	2	
C-	1.7	-	-	-	-	
F	0	0	-	F	0	

	Grades Not Calculated in GPA				
Grade*	Uncalculated	A letter grade (A-F) followed by an asterisk is not computed in the GPA.			
Р	Pass	Indicates an achievement that has met the course requirements, in courses graded pass/fail, but is not computed in the GPA.			
FL	Fail	Indicates an achievement that has not met course requirements, in courses with pass/fail grading mode.			
AU	Audit	Indicates a course has been taken without credit.			
CC	Continuing Course	Indicates a course which is more than a semester in length, is continuing.			
CH	Challenge	Indicates a student has been granted credit.			
EL	Experiential Learning	Indicates a student has been granted credit based on work or life experience, such as structured internships, volunteer work, travel, self-study or training.			
EX	Exemption	Indicates the student has been exempted from a course requirement on the basis of equivalent attainment other than transfer credit.			
1	Incomplete	Indicates the student has not completed all course requirements for medical reasons, or for extenuating personal circumstances such as bereavement.			
IP	In Progress	Indicates the student is currently enrolled in the course.			
NG	Not Gradable	Indicates that no final grade will be recorded for the course.			
NS	Not Submitted	Indicates that an assigned grade has not been submitted by the last day of the semester.			
TR	Transfer Credit	Indicates the student has been granted credit for equivalent courses at another accredited institution.			
U	Unclassified	Indicates the student has not met all learning outcomes.			
W	Withdrawal	Indicates the student has withdrawn during the time period allowed for withdrawal without penalty.			

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#### **DESCRIPTION OF THE COURSES**

# 202310 EGN 1133 Design Thinking in Technology

Covers the design thinking methodology to identify and address engineering problems. Includes solid modeling, rapid prototyping, understanding end users, their unarticulated needs, and creating alternative solutions. Focus on creativity, identify potential solutions, and innovation of new products and work processes. Students will apply design methodologies and innovation tools in an engineering technology problem, build and test it to gain the spirit and initiative of the course.

#### 202310 MTH 1113 Statistics for Engineering

A standard approach to statistical analysis mainly for engineering students. Covers basic statistical concepts; graphs; basics probability; discrete distribution; expectations; Binomial and Normal distributions with their applications. Point and Confidence interval estimations; testing hypotheses; regression and correlation.

#### 202310 MTH 1203 Calculus I

Apply the concepts of trigonometry and algebra to determine limits and establish continuity for an equation. Calculate the derivative of algebraic, trigonometric, logarithmic and exponential functions. Apply the derivative to optimisation of problems. Determine the maxima and minima of a function. Create graphs to solve problems

#### 202310 PHY 1103 Phys. of Mechanics and Motion

An introductory level physics course that is essential for all Engineering programs. It covers many of the fundamental principles of physics such as linear motion, circular motion and angular motion, forces and Newton's laws of motion, work and energy, collisions and conservation laws, momentum and fluids. Laboratory work is required to reinforce and stress the importance of these principles using the experimental method for investigating and reporting results.

#### 202320 AES 2003 Arabic for Non-Native Speakers

This is a course aimed at developing Arabic language skills for non Arabic speakers (reading, writing, speaking and listening), grammar, and vocabulary. The students will learn and practice the basic communication skills that will get them engaged with their culture, study, and work requirement.

#### 202320 EGN 1001 Engineering Workshop

Engineering workshop gives the student the opportunity to learn basic hands-on skills, engineering measurements and underpinning knowledge in safe working practices. The course also introduces the fabrication of metalwork projects.

#### 202320 LSS 1003 Life and Future Skills

Introduces students to the concept of understanding and planning for an uncertain future using future thinking techniques. Students engage in interactive learning activities that increase awareness and develop critical and creative thinking skills to apply in their personal, professional, academic lives and responsibilities as a global citizen.

#### 202320 LSS 1123 Basic Research Methods

Introduces students to the process of scientific inquiry through applied research based on the scientific method and focusing on the mechanics of quantitative and qualitative data collection, analysis, and reporting.

#### 202320 MTH 2103 Calculus II

Covers Sums, indefinite and definite integrals, integration techniques, parametric equation, Polar coordinates, application of integration, introduction to numerical integration, Taylor, Maclaurin, Fourier series and their application.

#### 202320 PHY 1203 Phy of Electricity & Magnetism

A second course of introductory level physics that is key for several applied engineering programs. It covers the fundamental principles of physics such as heat and thermodynamics, electricity and magnetism, mechanical waves and electromagnetic waves. Laboratory work, utilizing experimental methodology and written reports, is used to reinforce these principles.

# 202410 ELE 2114 Electrical Circuits

Covers DC and AC fundamentals, which include Ohm's law, power dissipation, Kirchhoff's laws, and linear circuit theorems, such as Thevenin equivalence, Norton equivalence, and superposition. Introduces analysis of networks of series, parallel, and series-parallel linear circuits with various sources. Describes fundamental energy storage components. Explore transient and steady state responses and power dissipation of RC, RL, and RLC linear reactive circuits with a sinusoidal source.

## 202410 ELE 2181 Circuit Lab

Examine in a laboratory setting, DC and AC fundamentals, which include Ohm's law, power dissipation, Kirchhoff's laws, and linear circuit theorems, such as Thevenin equivalence, Norton equivalence, and superposition. Analyse networks of series, parallel, and series-parallel linear circuits with various sources. Explore transient and steady state responses and power dissipation of RC, RL, and RLC linear reactive circuits with

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a sinusoidal source.

#### 202410 ELE 2213 Digital Circuits

Covers fundamental concepts of digital systems including numbering systems, digital codes, logic symbols, and Boolean expressions. Students learn to apply logic minimization techniques to the analysis of combinational and sequential circuits. The classification of integrated circuit (IC) families is also presented.

#### 202410 ICT 2013 Computational Thinking and Cod

Developing fundamental computer programming knowledge and skills through applying logical thinking and problem-solving techniques. Covering the concepts and techniques of variables, data types, algorithm, sequence, selection and iteration. Understanding the data analysis process. Able to read data from different data sources, clean and run basic inferential statistical analyses. Students will apply their programming skills to a problem from their major or concentration.

#### 202410 LSC 2193 Applied Skills Capstone

Incorporates the skills and competencies introduced in the pre-requisite courses into a futures-based applied research capstone course in which students conceptualize a study, collect secondary research data, analyze and interpret data, and present findings in a professional written product. Develops students interview skills for future workforce preparedness.

#### 202420 AES 2033 Islamic Culture

Introduces the concepts and clarifies the importance of Islamic culture as it applies to life in general as well as ideological perspectives. The course provides an understanding of the morals and virtuous values according to the guidance of moderate Islam, highlighting tolerance and connections to all nations and their civilizations. The course deals with ethics and moral values as the most important factor, in addition to extending the value of Islamic contributions to human civilization in many fields. Finally, the course analyzes and defines the challenges facing Islamic culture.

#### 202420 EGN 3212 Economics for Engineering

Covers basics of economic analysis for quantifying engineering business decisions. Includes time value of money; analysis of single and multiple investments; comparison of alternatives; capital recovery. Public sector analysis and break-even concepts related to engineering projects. Demonstrate competency in key economic analysis using hands-on tools like case studies.

## 202420 ELE 2303 Power Generation & Transmission

Covers the layout, main components, and characteristics of common electrical power generation plants with application to various thermal power plants and the power transmission process from generation to distribution. Develop expressions for resistance, inductance and capacitance of high-voltage power transmission lines which are used to determine the equivalent circuit of a three-phase transmission line.

# 202420 ELE 2314 Principles of Machines & Power

Three phase electrical circuits are analyzed. Magnetic systems and electromagnetic induction is studied. The operation of electrical transformers and the performance of DC machines are explained. Practical investigations are utilized to reinforce concepts.

## 202420 ELE 2403 Electronics I

Examine the construction and operation of a semiconductor diode. Explore the use of diodes in common practical applications. Analyse the construction, operation, characteristics, and common applications of semiconductors including BJTs, JFETs, MOSFETs, and IGBTs. Theoretical concepts are reinforced using both circuit simulation and practical experiments in a laboratory setting.

### 202420 MTH 2503 Intro to Diff. Equations

This course covers modeling with differential equations, separable and first-order linear DEs, direction fields and Euler¿s method, systems of first-order DEs, homogeneous and non-homogeneous second-order DEs, and Laplace transforms. Upon completion, students will be able to solve first and second-order DEs, Laplace transforms, and various engineering-related applications.