

STUDY PLAN 2021–2022 • RENEWABLE ENERGY TRACK

Prerequisite

Co-requisite

Energy & Electrical

Languages & General

Math & Sciences

Computing

Mechatronics

Mechanical

Industrial

TECHNICAL & SCIENCE CORE

GENERAL / UNIVERSITY

GERMAN / MILESTONES

First Year	1	MATH101 Calculus I	PHYS103 Physics I	CHEM103 General Chemistry I	CHEM106 General Chemistry Lab CHEM103	CS116 Computing Fundamentals CS1160	CS1160 Computing Fundamentals Lab CS116		ENGL098 English I	MILS100 Military Sciences Jordanian only	GERL101 German I	
	2	MATH102 Calculus II MATH101	PHYS104 Physics II PHYS103PHYS106	PHYS106 General Physics Lab PHYS104	ME0111 Computer Aided Engineering Drawing CS116	IE0141 Engineering Workshop	ENGL099 English II ENGL098	ARB100 Arabic	NE101 National Education ARB099 / ENGL101	UNIVERSITY ELECTIVE I University Elective	GERL102 German II GERL101	
Second Year	1	MATH203 Applied Mathematics for Engineers MATH102	MATH205 Differential Equations MATH203	MECH0221 Thermodynamics MATH102		ENE211 Fundamentals of Electrical Circuits PHYS104MATH203			UNIVERSITY ELECTIVE II University Elective	ENGL101 English III ENGL099	GERL201 German III GERL102	
	2	IE0121 Probability and Statistics MATH101	ENE212 Electrical Circuits and Systems Analysis ENE211	ENE214 Electronics ENE211	ECE333 Electromagnetics MATH203	ENE301 Introduction to Digital Systems and Microcontrollers ENE214	ENE302 Statistical and Numerical Methods for Energy Engineers MATH205			ENGL102 English IV ENGL101	GERL202 German IV GERL201	
Third Year	1	MECH0222 Fluid Mechanics MATH102PHYS103	ENE316 Introduction to Communication Systems for Energy Engineers ENE212	ENE213 Electrical Circuits Lab ENE211	ENE311 Electrical Machines ENE212ECE333	ENE312 Power Electronics ENE214ENE212	ENE323 Fluid Mechanics Lab MECH0222	ENE444 Modeling and Control of Energy Systems MATH205ENE311		ENGL201 English V ENGL102	GERL301 German V GERL202	
	2	ENE215 Electronics Lab ENE214ENE213	ENE313 Electrical Machines Lab ENE311	ENE314 Power Electronics Lab ENE312	ENE321 Heat Transfer MECH0221MECH0222MATH205	ENE322 Introduction to Energy Systems ENE321	ENE432 Power Plant Engineering ENE322	ENE441 Power Systems ENE311ENE302	ENE399 Field Training University Regulations	ENGL202 English VI ENGL201	GERL302 German VI GERL301	
Fourth Year	1	TECHNICAL ELECTIVE I Specialization Elective	TECHNICAL ELECTIVE II Specialization Elective	TECHNICAL ELECTIVE III Specialization Elective	TECHNICAL ELECTIVE IV Specialization Elective							
	2	ENE499 International Internship ENE399										
Fifth Year	1	ME0346 Instrumentations and Measurements ENE211MATH205ME0347	ME0347 Instrumentation and Measurements Lab ME0346	ENE401 Energy Systems Simulation Lab ENE312ENE322ENE444	ENE434 PV Technology I ENE322ENE212ENE214	ENE442 Power Systems Lab ENE441	ENE443 Electrical Power Generation, Transmission & Distribution ENE441	ENE537 Energy Efficiency, Management and Laws ENE322	ENE433 Solar Energy I ENE322		ENE598 Graduation Project I ENE499	
	2	ENE435 Wind Energy Technology ENE311ENE312ENE322	ENE436 Renewable Energy Lab ENE322	ENE438 Energy Lab ENE322	ENE538 Energy Efficiency Lab ENE434ENE436				ENE437 Economics of Natural Resources Engineering MATH203	ENE599 Graduation Project II ENE598		

STUDY PLAN 2021–2022 • ELECTRICAL POWER TRACK

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First Year	1	MATH101 Calculus I	PHYS103 Physics I	CHEM103 General Chemistry I	CHEM106 General Chemistry Lab CHEM103	CS116 Computing Fundamentals CS1160	CS1160 Computing Fundamentals Lab CS116	ENGL098 English I	MILS100 Military Sciences Jordanian only	GERL101 German I	
	2	MATH102 Calculus II MATH101	PHYS104 Physics II PHYS103PHYS106	PHYS106 General Physics Lab PHYS104	ME0111 Computer Aided Engineering Drawing CS116	IE0141 Engineering Workshop	ENGL099 English II ENGL098	ARB100 Arabic	NE101 National Education ARB099 / ENGL101	UNIVERSITY ELECTIVE I University Elective	GERL102 German II GERL101
Second Year	1	MATH203 Applied Mathematics for Engineers MATH102	MATH205 Differential Equations MATH203	MECH0221 Thermodynamics MATH102	ENE211 Fundamentals of Electrical Circuits PHYS104MATH203			UNIVERSITY ELECTIVE II University Elective	ENGL101 English III ENGL099	GERL201 German III GERL102	
	2	IE0121 Probability and Statistics MATH101	ENE212 Electrical Circuits and Systems Analysis ENE211	ENE214 Electronics ENE211	ECE333 Electromagnetics MATH203	ENE301 Introduction to Digital Systems and Microcontrollers ENE214	ENE302 Statistical and Numerical Methods for Energy Engineers MATH205		ENGL102 English IV ENGL101	GERL202 German IV GERL201	
Third Year	1	MECH0222 Fluid Mechanics MATH102PHYS103	ENE316 Introduction to Communication Systems for Energy Engineers ENE212	ENE213 Electrical Circuits Lab ENE211	ENE311 Electrical Machines ENE212ECE333	ENE312 Power Electronics ENE214ENE212	ENE323 Fluid Mechanics Lab MECH0222	ENE444 Modeling and Control of Energy Systems MATH205ENE311	ENGL201 English V ENGL102	GERL301 German V GERL202	
	2	ENE215 Electronics Lab ENE214ENE213	ENE313 Electrical Machines Lab ENE311	ENE314 Power Electronics Lab ENE312	ENE321 Heat Transfer MECH0221MECH0222MATH205	ENE322 Introduction to Energy Systems ENE321	ENE432 Power Plant Engineering ENE322	ENE441 Power Systems ENE311ENE302	ENE399 Field Training University Regulations	ENGL202 English VI ENGL201	GERL302 German VI GERL301
Fourth Year	1	TECHNICAL ELECTIVE I Specialization Elective	TECHNICAL ELECTIVE II Specialization Elective	TECHNICAL ELECTIVE III Specialization Elective	TECHNICAL ELECTIVE IV Specialization Elective						
	2	ENE499 International Internship ENE399									
Fifth Year	1	ME0346 Instrumentations and Measurements ENE211MATH205ME0347	ME0347 Instrumentation and Measurements Lab ME0346	ENE401 Energy Systems Simulation Lab ENE312ENE322ENE444	ENE434 PV Technology I ENE322ENE212ENE214	ENE442 Power Systems Lab ENE441	ENE443 Electrical Power Generation, Transmission & Distribution ENE441	ENE411 Electric Drives ENE312ENE444	ENE541 Power System Analysis ENE441	ENE598 Graduation Project I ENE499	
	2	ENE412 Electric Drives Lab ENE411	ENE543 Power System Protection Lab ENE542	ENE544 Power Systems Integrations Lab ENE301ENE314ENE442	ENE542 Power System Protection ENE541ENE543				ENE437 Economics of Natural Resources Engineering MATH203	ENE599 Graduation Project II ENE598	