

College	College of Engineering	Department	Energy and Sustainable Engineering
Program	Energy Engineering	Degree Level	Bachelor of Science
Total Credit Hours	137 CH	Applicable for batch of	2023 and above

Year One		Year Two		Year Three		Year Four		Year Five
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
ENGR111 Computer Applications	EGEN201 Energy and Sustainable Development	ENGR201 Engineering Drawing	EGEN251 Fluid Mechanics Pre-R: MATH102	MNGT313 Entrepreneurship	EGEN385 Electrical Machines Pre-R: EGEN221	EGEN482 Instrumentation and Control Systems Pre-R: EGEN344	EGEN471 Modeling and Simulation of Energy Systems Pre-R: MATH305, MATH203	EGEN561 Hydrogen and Fuel Cell Fundamentals Pre-R: CVEN361
ARAB101 Arabic	OMNS101 Omani Society	EGEN221 Circuit Theory Pre-R: MATH102	MATH204 Probability and Statistics Pre-R: MATH102	EGEN333 Electronics Pre-R: EGEN221	ENGR404 Engineering Economics Pre-R: MATH204	Energy Engineering Electives	Energy Engineering Electives	Energy Engineering Electives
PHYS111 Applied Physics	MATH102 Calculus II Pre-R: MATH101	ENGR202 Technical Writing and Presentation Pre-R: ENGL102	EGEN261 Engineering Mechanics Pre-R: MAHT102	EGEN320 Combustion and Heat Generation Pre-R: EGEN201	MATH305 Numerical Methods Pre-R: MATH102 - ENGR111	EGEN421 Wind Energy Pre-R: EGEN385	EGEN461 Energy Storage Technology Pre-R: EGEN443	EGEN523 Distributed Generation Pre-R: EGEN344
ENGL101 English Communication Skills I	CHEM101 Chemistry	CVEN361 Environmental Engineering Pre-R: CHEM101	EGEN262 Thermodynamics and Heat Transfer Pre-R: PHYS111	University Elective	EGEN381 Fossil Fuel Power Plants Pre-R: EGEN320	CVEN471 Engineering Project Management Pre-R: MNGT313	EGEN491 Capstone Design Project I Pre-R: ENGR404	EGEN592 Capstone Design Project II Pre-R: EGEN491
MATH101 Calculus I	ENGL102 English Communication Skills II Pre-R: ENGL101	University Elective	EGEN263 Thermo-Fluid Lab Pre-R: PHYS111 Co-R: EGEN251, EGEN262	EGEN344 Power Systems Pre-R: EGEN221	MATH203 Deferential Equations Pre-R: MATH102	EGEN443 Power Electronics and Drives Pre-R: EGEN333, EGEN385	EGEN422 Solar Energy Pre-R: EGEN443	EGEN513 Energy Safety and Risk Assessment Pre-R: EGEN201
PHYS181 Physics Lab Co-R: PHYS111	CHEM181 Chemistry Lab Co-R: CHEM101	EGEN222 Circuit Theory Lab Pre-R: MATH102 Co-R: EGEN221		EGEN334 Electronics Lab Pre-R: EGEN221 Co-R: EGEN333			EGEN481 Energy Lab I Pre-R: EGEN421, Co-R: EGEN422	EGEN582 Energy Lab II Pre-R: EGEN461 Co-R: EGEN561
							ENGR322 Summer Internship	
16 CH	16 CH	16 CH	13 CH	16 CH	15 CH	15 CH	15 CH	15 CH

Energy Engineering Technical Electives (Choose 3 courses from this list.)

Course Code	Course Title	Credits	Pre-Requisites Co-Requisites (C)
ENEN581	Climate Change	3	CVEN361
EGEN203	Engineering Materials	3	MATH102
EGEN583	Low Carbon Energy Technology	3	CVEN361
EGEN573	Nuclear Energy	3	CVEN361
EGEN575	Energy Buildings	3	CVEN361
EGEN577	Waste and Energy	3	CVEN361
EGEN584	Air Pollution and Control	3	CVEN361
EGEN588	Digital Systems	3	EGEN221
EGEN522	Energy Economics	3	MATH204
EGEN579	Energy Selected Topics	3	CVEN361
EGEN559	Energy Audit and Management	3	CVEN471
EGEN511	Biofuel, Geothermal, & Biomass	3	CVEN361
EGEN372	Tidal and Wave Energy	3	EGEN201
EGEN501	Power Quality	3	EGEN344
EGEN502	Power System Protection	3	EGEN344

University Electives (Choose 2 courses from this list.)

Course Code	Course Title	Credits	Pre-Requisites Co-Requisites (C)
ARAB102	الأدب العربي	3	
ISLM101	Islamic Civilizations	3	
PHIL101	Introduction to Logic (Philosophy)	3	
SOCI101	Sociology	3	
PSYC100	مدخل إلى علم النفس	3	
FINA202 A	التمويل الشخصي	3	
ECON101	الاقتصاد الجزئي	3	



FAID101	First Aid	3	
PUHE211	Introduction to Public Health	3	
LAWC101	القانون في حياتنا	3	
LAWC102	التشريعات الوظيفية	3	
LAWC103	نظام الأسرة	3	