

CURRICULUM

The typical study program for B.Sc. students in the Renewable Energy Engineering Department is distributed over 8 semesters as follows:

FIRST YEAR OF (REE) PROGRAM (Freshman)

FIRST SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
CHEM 101	Chemistry I	4	3	3		
ENGL 100	English Language	2	2	0		
MATH 101	Calculus I	4	4	0		PHYS 101
PHYS 101	Physics I	4	3	3		MATH 101
IC 111	Intro. To Islamic Culture	2	2	0		
TOTAL (CREDIT)		16				

SECOND SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
ENGL 102	English Composition II	3	3	0	ENGL 100 or ENGL 101	
ARB 100	Arabic Languages Skills	2	2	0		
MATH 102	Calculus II	4	4	0	MATH 101	PHYS 102
PHYS 102	Physics II	4	3	3	PHYS 101	MATH 102
ICS 103	Computer Programming in C	3	2	3	MATH 101	
TOTAL (CREDIT)		16				



SECOND YEAR OF (REE) PROGRAM (Sophomore)

FIRST SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
MATH 201	Calculus III	3	3	0	MATH 102	
ENGL 214	Technical Report Writing	3	3	0	ENGL 102	
EE 201	Electric Circuits I	4	3	3	MATH 102 PHYS 102	
REE 201	Introduction to Renewable Energy Engineering	3	3	0	PHYS 102	
REE 202	Engineering Workshop	2	0	6		
REE 203	Applied Thermodynamics	3	3	0	MATH 102 PHYS 102	
TOTAL (CREDIT)		18				

SECOND SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
MATH 202	Elem. Diff. Equations	2	3	0	MATH 201	
ETEC 115	Computer and Information	2	2	0		
REE 204	Engineering Statics and Dynamics	3	3	0	MATH 102 PHYS 102	
ME 205	Materials Science	3	2	3	CHEM 101 PHYS 102	
EE 205	Electric Circuits II	3	3	0	EE 201 MATH 201	
REE 205	3D-CAD and Modeling	1	1	0		REE 2051
REE 2051	3D-CAD and Modeling-Lab	1	0	3		REE 205
TOTAL (CREDIT)		15				



THIRD YEAR OF (REE) PROGRAM (Junior)

FIRST SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
MATH 302	Engineering Mathematics	3	3	0	MATH 202	
ME 311	Fluid Mechanics	3	3	0	REE 203	
REE 301	Power Electronics for REE	3	3	0	EE 205	REE 3011
REE 3011	Power Electronics for REE Lab	1	0	3		REE 301
REE 302	Power Systems Analysis	3	3	0	EE 205	REE 3021
REE 3021	Power Systems Analysis Lab	1	0	3		REE 302
REE 303	Measurement and Instrumentation	3	3	0	EE 205 REE 203	REE 3031
REE 3031	Measurement and Instrumentation Lab	1	0	3		REE 303
TOTAL (CREDIT)		18				

SECOND SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
EDUC 115	Work Values and Ethics	2	2	0		
REE 304	Solar PV	3	3	0	REE 301 REE 201	REE 3041
REE 3041	Solar PV Lab	1	0	3		REE 304
MATH 335	Numerical Analysis	3	3	0	MATH 302	
REE 305	Wind Energy Technology	3	3	0	ME 311 REE 302	REE 3051
REE 3051	Wind Energy Technology Lab	1	0	3		REE 305
REE 306	Heat and Mass Transfer	3	3	0	ME 311	REE 307
REE 307	Heat and Fluid Laboratory	1	0	3		REE 306
TOTAL (CREDIT)		17				

SUMMER SESSION

CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
REE 350	Summer Practical Training	0	0	0	ENGL 214 completion of 92 CRT	
TOTAL (CREDIT)		0				



FOURTH YEAR OF (REE) PROGRAM (Senior)

FIRST SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
REE 401	Solar Thermal Energy	3	3	0	REE 304 REE 306	
REE 402	Energy Efficiency	3	3	0	REE 303 REE 305	
REE 403	Economics of Energy Applications	3	3	0	MATH 335	
REE 440	Senior Design Project I	1	1	0	REE 350	
REE 4XX	REE Elective I	3	3	0		
CRCL 115	University Life Skills	3	3	0		
TOTAL (CREDIT)		16				

SECOND SEMESTER						
CODE	COURSE TITLE	CRED	LECT	LAB	PRE-REQUISITE	CO-REQUISITE
REE 404	Energy Generation and Control Equipment	3	3	0	REE 301 REE 403	
REE 405	Energy Conversion and Storage Applications	3	3	0	REE 303 REE 305	REE 4051
REE 4051	Energy Conversion and Storage Applications Lab	1	0	3		REE 405
REE 441	Senior Design Project II	2	0	6	REE 440	
REE 4XX	REE Elective II	3	3	0		
GS 4XX	General Study Elective	3	3	0		
EDUC 125	Entrepreneurship	2	2	0		
TOTAL (CREDIT)		17				

