



Philadelphia University
Faculty of Engineering
Renewable Energy Department

Advisement Plan for Renewable Energy Department

First Year							
First Semester				Second Semester			
Course No.	Course Title	Cr. H.	Prerequisite	Course No.	Course Title	Cr. H.	Prerequisite
114101	Arabic Language Skills (1)	3	114099	111101	National Education	3	----
130101	English Language Skills (1)	3	130099	130102	English Language Skills (2)	3	130101
250101	Calculus (1)	3	-----	250102	Calculus (2)	3	250101
211101	Applied Physics (1)	3	-----	----	Military sciences	3	----
620131	University elective	3	-----	211101	Applied Physics (2)	3	211101
660131	Engineering Drawing	1	-----	660131	Engineering Drawing by computer	1	660131
Total		16		Total		16	

Second Year							
First Semester				Second Semester			
Course No.	Course Title	Cr. H.	Prerequisite	Course No.	Course Title	Cr. H.	Prerequisite
615211	Electric Circuits	2+1	211102	615251	Drawing and reading of engineering plans	2	660132
640253	Engineering skills	3	130102	615212	Electronic circuits	2+1	615211
615221	Statics	2	211101	615313	Electrical Machines	2+1	615211
615223	Fluid mechanics	2	250102	615222	Dynamics	2	615221
620171	Engineering workshop (1)	1	660132	615224	Thermodynamics	2	615223
212101	General chemistry (1)	3	-----	615322	Strength of materials	2+1	615221
	University elective	3	-----	630263	Programing language	3	-----
Total			17	Total		18	

Third Year							
First Semester				Second Semester			
Course No.	Course Title	Cr. H.	Prerequisite	Course No.	Course Title	Cr. H.	Prerequisite
615311	Instrumentation and Measurement	2+1	615212	615312	Automatic control systems	2	615311
615314	Electrical power systems	2	615313	615331	Internal and external combustion	2+1	615321
615321	Heat transfer	2	615224	615332	Energy conversion	2	615314
615351	Professional safety	3	615251	615333	Power plants	2	615314
	University elective	3		615442	Oil shale	2	211102
615261	Thermo fluids lab	1	615224	615444	Wind energy	2	615313
				615341	Solar thermal energy	2	615321
				615352	Material science	3	615322
Total		16		Total		18	

Third Year			
Summer Semester			
Course No.	Course Title	Cr. H.	Prerequisite
615480	Engineering training	0	90 Cr. H.

Fourth Year							
First Semester				Second Semester			
Course No.	Course Title	Cr. H.	Prerequisite	Course No.	Course Title	Cr. H.	Prerequisite
615432	Conventional energy sources	3	615332	615447	Rational use and conservation of energy	2	615332
615433	Conventional energy problems and constraints	2	615332	615446	Bioenergy and waste management	2	615432
615434	Environmental pollution	2	615331	615448	Other renewable and alternative sources	2	
615342	Photovoltaics	2	615314	615462	Modeling and simulation of energy systems	1	615433
615445	Hydro and geothermal energy	2	615222	615464	Alternative energy workshop (2)	1	615342
615431	Energy economics and management	2	615332	610550	Engineering enterpenoring	3	640253+120 Cr Hrs
615463	Alternative energy workshop (1)	1	615341	615482	Technological project (2)	2	615481
615481	Technological project (1)	1	90 Cr Hrs		University elective	3	-----
Total		16		Total		15	