



# BS in Electrical Engineering: Power Engineering Study Plan Chart

College of Engineering & Information Technology (CEIT)

<b>Year 1</b>	EMTH 100 Calculus 1  (3-0-3)	GPHY 100 General Physics 1*  (2-3-3)	ENGL 110 English I  (3-0-3)	GECE 100 Chemistry -1  (3-0-3)	ENIN 100 Eng. Innovation  (3-0-3)		
	EMTH 150 Calculus 2 (pr. EMTH 100) (3-0-3)	GPHY 150 General Physics 2* (pr. GPHY 100) (2-3-3)	ENGL 120 English II (pr. ENGL 110) (3-0-3)	HSS requirements  (3-0-3)	ENAP 150 Comp Algor. & Prog* (2-3-3)		
S1	GISL 100/GISL 105 Islamic Thought (Arabic/English) (3-0-3)						
<b>Year 2</b>	EMTH 200 Calculus 3 (pr. EMTH 150) (3-0-3)	EMTH 250 Advanced Math I (pr. EMTH 150) (3-0-3)		ENMA 200 MATLAB  (0-3-1)	ENDD 200 Digital Logic Design *  (3-3-4)	ENEC 200 Electric Circuits 1* (pr. EMTH150, GPHY150) (3-3-4)	
	BMNG200 Mgmt&Org Behavior (ENGL105) (3-0-3)	EMTH 260 Advanced Math II (pr. EMTH 250) (3-0-3)	ENGL 220 Comm. Skills (pr. ENGL 120) (3-0-3)		ENEL 250 Electronics I * (ENEC 200)  (3-3-4)	ENEC 250 Electric Circuits 2 (ENEC 200)  (3-0-3)	
S2	GEST 100 Emirati Study (3-0-3)						
<b>Year 3</b>		ENSS 300 Signals & Systems (pr. EMTH 260,) (2-3-3)	ENPR 300 Prob & Rand.Proc. (pr.EMTH150) (3-0-3)	ENMP 300 Micro P* (Pr. ENDD 200) (3-3-4)	ENEL 300 Electronics II* (pr.ENEL250 ) (2-3-3)	ENMG300 ElectroMagn (pr.GPHY150,EMTH200,2 50) (3-0-3)	
	ENEE 300 Eng. Economics (pr. EMTH100) (3-0-3)	GIEC 105 Innovation, Entprshp&Career Planning (3-0-3)	ENCS 300 Comm Systems* (pr. ENSS 300) (3-3-4)	EECS 300 Control Systems (pr. ENSS 300) (3-0-3)	ELCE 340 Power & Machines (pr. ENMG 300) (3-0-3)		
S3	ENIN 400 Graduate Trainee (GT) / Learn Earn And Progress (LEAP) Program						
<b>Year 4</b>		ELCE 461 Power System Analysis (pr. ELCE 340) (3-0-3)	ELCE 463 Power Distribution and Smart Grid Systems (pr. ELCE 340) (2-3-3)	Technical Elective 1  (3-0-3)	Technical Elective 2  (3-0-3)	ENPR 401 Graduation Project -1* (pr. ≥90 CH) (1-6-3)	
		ELCE 464 Power System Stability and Control (3-0-3) (pr. ELPE 400)	ELCE 465 High Voltage Engineering (3-0-3) (pr. ELPE 400)	Technical Elective 3  (3-0-3)	Technical Elective 4  (3-0-3)	ENPR 402 Graduation Project -2* (ENPR 401) (0-9-3)	
<b>Total Number of Credits</b>							<b>130</b>

Math Requirements	15 Credits
English Requirements	9 Credits
Science Requirements	9 Credits
Humanities & Social Sciences	3 Credits
Cultural Requirement	6 Credits
Supporting CE	12 Credits
Communication Engineering	64 Credits
Technical Elective	12 Credits
<b>Total</b>	<b>130 Credits</b>

Humanities and Social Science Requirements	
GEDU 100	Education & the Future (pr. ENGL100)
GLAW 100	Law & Society (pr. ENGL100)
GPSY 100	Psychology & Society (pr. ENGL100)
GCUS 100	Cult. & Society (pr. ENGL100)
GCOS 100	Sociology. & Society (pr. ENGL100)

Graduate Trainee (GT) / Learn Earn And Progress (LEAP) Program**	Summer Block	≥ 90 Credits
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\* Lab Based Courses

\*\* Students must be in good academic standing. The students must successfully finish: ENIN 100, BMNG 200, ENDD 250, ENEC 200 (ENEL 300 - desirable) before starting the first GT/LEAP.

Technical Electives	
ELE 486	Electric Drives
ELCE 466	Power Electronics
ELE 481	Power System Protection
ELE 487	Renewable Energy Systems
ELE 473	Industrial Instrumentation
CE 400	Artificial Intelligence