

MODEL ROUTE									
School:	School of Engineering Technology and Applied Science - SDRE		Program Number:		3756				
Program Title:	Energy Systems Engineering Technology		Credential:		☐ Certificate ☐ Diploma		☐ Graduate Certificate ☒ Advanced Diploma		☐ Degree
Program Delivery Mode:	☐ Co-Op ☐ Fast Track ☒ Non Co-op		☐ Online ☐ Hybrid		Duration :		☐ 2 Semesters ☐ 4 Semesters ☐ 8 Semesters		
Campus:	Progress Campus								
Intake:	Fall 2022/Winter 2023								
Course Code	Course Title	Co/Pre Requisite (Course Code)	Lab Hours	Lecture Hours	Field Placement Hours	Course Delivery ODL=Online BLD=Blended HYB = Hybrid	Total Course Hrs (Lab + Lecture + Field)	Weeks (14)	Total Hours
Semester 1	Fall 2022/Winter 2023								
COMM-160/161	College Communications 2		0	3			3	14	42
ESET-111	Energy, Environment and Society		0	2		ODL	2	14	28
MATH-170	Technology Mathematics 2		0	3			3	14	42
PHYS-100	Physics		0	3			3	14	42
ESET-112	Electric Circuits		2	4			6	14	84
ESET-115	Computer Aided Drafting		3	2			5	14	70
								Total	308
Semester 2	Winter 2023/Summer 2023								
COMM-170/171	College Communications 2	COMM-160/161	0	3			3	14	42
ESET-121	Fabrication and Installation	ROBO-115 or MT-151 or ESET115	3	0			3	14	42
ESET-122	Chemistry Applications and Climate		2	3			5	14	70
GNED-500	Global Citizenship: From Social Analysis to Social Action		0	3		ODL, BLD, HYB	3	14	42
MATH-180 *	Technology Mathematics 3	MATH-170	0	3			3	14	42
ESET123	Applied Statics	PHYS-100	0	4			4	14	56
ESET-124	Electronic Devices	ROBO-112 or ESET112	2	2			4	14	56
								Total	350
Break (Summer 2023)									
Semester 3	Fall 2023								
AMEG212	Applied Ethics in Technology and the Environment			2		ODL	2	14	28
ESET-211	Digital & Power Electronics	ROBO-234 or ESET124	2	2			4	14	56
ESET-212	Boilers & Auxiliaries	PHYS-100 or FT Code	2	2		HYB	4	14	56
ESET-213 *	Renewable Energy System	ESET-111 or FT Code	2	2			4	14	56
GNED	General Education Elective		0	3			3	14	42
MATH-231	Differential Calculus and Analytic Geometry	MATH-180	0	4			4	14	56
ESET216	Mechanics and Materials	ROBO-123 or MT-121 or ESET123	1	2		ODL	3	14	42
								Total	336
Semester 4	Winter 2024								
ESET-221 *	Fluid Mechanics & Dynamics	PHYS-100, MATH-170 or FT Code	1	3			4	14	56
ESET-222 *	Wind and Solar Energy	ESET-213	2	2			4	14	56
ESET-223	Power Engineering and HVAC	ESET-212	2	2			4	14	56
ESET-225	Pneumatic/PLC	ESET-211	2	3			5	14	70
MATH-232	Integral Calculus	MATH-231	Page 10	4			4	14	56

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GNED	General Education Elective		0	3			3	14	42
								Total	336
Break (Summer 2024)									
Semester 5	Fall 2024								
ESET-312	Power Generation 1	ESET-223	2	2			4	14	56
ESET-314	Motion Controls and Network	ESET-225	2	2			4	14	56
ESET-315	Refrigeration and HVAC	ESET-223	2	2			4	14	56
ESET-316	Microcontrollers	ESET-211	2	2			4	14	56
ESET-317	Statistics & Energy Auditing	ESET-222	0	4		ODL	4	14	56
ESET318	Thermodynamics 1	ESET-221 or MT-318	1	3		HYB	4	14	56
								Total	336
Semester 6	Winter 2025								
ESET-322	Power Generation 2	ESET-312	2	2			4	14	56
ESET-323	Distributed Generation and Transmission	ESET-316, ESET-317	2	2			4	14	56
ESET-324	Geothermal Heat Pumps: Installation & Design	MT-309 or ESET318	0	4		ODL	4	14	56
ESET-325	Building Automation Systems	ESET-314	2	2			4	14	56
ESET-326	Final Project	ESET-312, 315, 317	3	1			4	14	56
ESET-328	Energy Storage & Management	ESET-315	0	3			3	14	42
								Total	322
Total Program Hours:									1988

C = Co-Requisite; P = Pre-Requisite

Notes:

◆ This course may be offered in one of the following modalities (Online, Hybrid or Blended)

* Minimum "C" grade required for technologist graduation.

Signature: Clarence Cheung
School Dean/Chair

24-Mar-22
Revised Date

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