

# MODEL ROUTE

<b>School:</b>	School of Engineering Technology and Applied Science - SDRE	<b>Program Number:</b>	3757						
<b>Program Title:</b>	<b>Energy Systems Engineering Technology - PTY</b>	<b>Credential:</b>	<input type="checkbox"/> Certificate <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Degree <input type="checkbox"/> Diploma <input checked="" type="checkbox"/> Advanced Diploma						
<b>Program Delivery Mode:</b>	<input checked="" type="checkbox"/> Co-Op <input type="checkbox"/> Online <input type="checkbox"/> Fast Track <input type="checkbox"/> Hybrid <input type="checkbox"/> Non Co-op	<b>Duration :</b>	<input type="checkbox"/> 2 Semesters <input type="checkbox"/> 3 Semesters <input type="checkbox"/> 4 Semesters <input type="checkbox"/> 6 Semesters <input type="checkbox"/> 8 Semesters <input checked="" type="checkbox"/> 9 Semesters						
<b>Campus:</b>	<b>Progress Campus</b>								
<b>Intake:</b>	<b>Fall 2022/Winter 2023</b>								
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
<b>Semester 1</b>	<b>Fall 2022/Winter 2023</b>								
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
								<b>Total</b>	308
<b>Semester 2</b>	<b>Winter 2023/Summer 2023</b>								
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 ESET-112	2	2			4	14	56
								<b>Total</b>	350
<b>Break (Summer 2023)</b>									
<b>Semester 3</b>	<b>Fall 2023</b>								
AMEG212	Applied Ethics in Technology and the Environment 			2		ODL	2	14	28
ESET-211	Digital & Power Electronics	ROBO-234 or ESET-124	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 ESET-123	1	2		ODL	3	14	42
								<b>Total</b>	336
<b>Semester 4</b>	<b>Winter 2024</b>								
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
GNED	General Education Elective		0	3			3	14	42
MATH-232	Integral Calculus	MATH-231: Minimum C grade	0	4			4	14	56
								<b>Total</b>	336

# MODEL ROUTE

<b>School:</b>	School of Engineering Technology and Applied Science - SDRE	<b>Program Number:</b>	3757						
<b>Program Title:</b>	<b>Energy Systems Engineering Technology - PTY</b>	<b>Credential:</b>	<input type="checkbox"/> Certificate <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Degree <input type="checkbox"/> Diploma <input checked="" type="checkbox"/> Advanced Diploma						
<b>Program Delivery Mode:</b>	<input checked="" type="checkbox"/> Co-Op <input type="checkbox"/> Online <input type="checkbox"/> Fast Track <input type="checkbox"/> Hybrid <input type="checkbox"/> Non Co-op	<b>Duration :</b>	<input type="checkbox"/> 2 Semesters <input type="checkbox"/> 3 Semesters <input type="checkbox"/> 4 Semesters <input type="checkbox"/> 6 Semesters <input type="checkbox"/> 8 Semesters <input checked="" type="checkbox"/> 9 Semesters						
<b>Campus:</b>	<b>Progress Campus</b>								
<b>Intake:</b>	<b>Fall 2022/Winter 2023</b>								
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
Break (Summer 2024)									
Semester 5	<b>Fall 2024</b>								
ESET-312	Power Generation 1	ESET-223	2	2			4	14	56
COOP-721	Employment Preplacement	COMM-170\171 minimum "C" grade, CGPA 2.5, and 80% of Year 1 and 2 courses completed	0	1			1	14	14
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
							<b>Total</b>		350
Work Term 1 (Winter 2025)		PROFESSIONAL TECHNOLOGY YEAR							
COOP-222	Co-op Work Placement 1								
Work Term 2 (Summer 2025)									
COOP-331	Co-op Work Placement 2								
Work Term 3 (Fall 2025)									
COOP-332	Co-op Work Placement 3								
Semester 6	<b>Winter 2026</b>								
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 ESET-318	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 and Management	ESET-315	0	3			3	14	42
							<b>Total</b>		322
<b>Total Program Hours:</b>									<b>2002</b>
<b>C = Co-Requisite; P = Pre-Requisite</b>									

# MODEL ROUTE

<b>School:</b>	School of Engineering Technology and Applied Science - SDRE	<b>Program Number:</b>	3757						
<b>Program Title:</b>	<b>Energy Systems Engineering Technology - PTY</b>	<b>Credential:</b>	<input type="checkbox"/> Certificate <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Degree <input type="checkbox"/> Diploma <input checked="" type="checkbox"/> Advanced Diploma						
<b>Program Delivery Mode:</b>	<input checked="" type="checkbox"/> Co-Op <input type="checkbox"/> Online <input type="checkbox"/> Fast Track <input type="checkbox"/> Hybrid <input type="checkbox"/> Non Co-op	<b>Duration :</b>	<input type="checkbox"/> 2 Semesters <input type="checkbox"/> 3 Semesters <input type="checkbox"/> 4 Semesters <input type="checkbox"/> 6 Semesters <input type="checkbox"/> 8 Semesters <input checked="" type="checkbox"/> 9 Semesters						
<b>Campus:</b>	<b>Progress Campus</b>								
<b>Intake:</b>	<b>Fall 2022/Winter 2023</b>								
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
<b>Notes:</b> ♦ 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