

MODEL ROUTE

School:	School of Engineering Technology & Applied Sciences - AMAT	Program Number:	3745
Program Title:	Mechanical Engineering Technology - Design (PTY)	Credential:	<input type="checkbox"/> Certificate <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Diploma <input checked="" type="checkbox"/> Advanced Diploma <input type="checkbox"/> Degree
Delivery Mode:	<input type="checkbox"/> Non Co-Op <input checked="" type="checkbox"/> Co-Op <input checked="" type="checkbox"/> Fast Track	Duration:	<input type="checkbox"/> 2 Semesters <input type="checkbox"/> 3 Semesters <input type="checkbox"/> 4 Semesters <input checked="" type="checkbox"/> 6 Semesters <input type="checkbox"/> 8 Semesters <input type="checkbox"/> 9 Semesters

Intake: **Fall 2024 and Winter 2025**

Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours
Semester 3							
Fall 2024 and Winter 2025							
MT-103	Machine Shop		3	1	4	14	56
MT-201	CAD/CAM and CNC Programming	(MT-103 & MATH-170/140) or FT Code	4	0	4	14	56
MT-318 *	Fluid Mechanics 1	MATH-170 or MT-204 or FT Code	1	3	4	14	56
MATH-231 *	Diff. Calc. & Analyt. Geometry	MATH-180 (C grade) or FT Code	0	4	4	14	56
MT-153	CAD II	MT-106 or (MT-151 & MT-152) or FT Code	4	0	4	14	56
COMM-170/171	College Communications 2		0	3	3	14	42
Total							322
Semester 4							
Winter 2025 & Summer 2025							
MT-224 *	Applied Dynamics	MT-121 or FT Code	0	4	4	14	56
MT-225	Hydraulics & Pneumatics		2	2	4	14	56
MT-228	Tool Design	MT-153 or FT Code	2	2	4	14	56
MATH-232	Integral Calculus	MATH-231 (C grade)	0	4	4	14	56
ENGL-250	Report Writing in a Technical Environment	COMM-170/171	0	2	2	14	28
GNED-500	Global Citizenship: From Social Analysis to Social Action		0	3	3	14	42
Total							294
Semester 5							
Fall 2025							
MT-258	Project: Design & Construction	(MT-153 & MT-204) or FT Code	4	0	4	14	56
MT-305	Dynamics of Machines & Mechanisms	MT-224	0	3	3	14	42
MT-309	Thermodynamics 1	ESET-221 or MT-318	1	3	4	14	56
MT-335	Machine Design 1	MT-204 or FT Code	0	4	4	14	56
MT-338	Fluid Mechanics 2	MT-318	1	3	4	14	56
MTID-311 ♦	Operational Excellence		0	4	4	14	56
COOP-221	Employment Preplacement	Minimum C-grade in COMM 170/171, minimum CGPA. & minimum of Year 1 & 2 courses required for COOP-221 & subsequent PTY work-placements	0	1	1	14	14
Total							336
COOP Work Terms							

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Intake: **Fall 2024 and Winter 2025**

Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours
Winter 2026	COOP-222	Professional Technology Year					
Summer 2026	COOP-331	Professional Technology Year					
Semester 6	Winter 2027						
MT-300	FEA Applications	(MT-153 & MT-335) or FT Code	3	0	3	14	42
MT-323 ♦	Instrumentation & Control	(MT-256 or FT Code) & MT-318	1	2	3	14	42
MT-324	Advanced Project: Design & Construction	MT-258	6	0	6	14	84
MT-339	Thermodynamics 2	MT-309	0	4	4	14	56
MT-342	Machine Design 2	MT-335	0	4	4	14	56
MT-257	Quality Assurance		0	3	3	14	42
Total							322
Total Program Hours:							1274

Notes:

Minimum Program GPA of 2.00 is required for graduation

♦ This course may be offered in one of the following modalities: Online, Hybrid, or Blended

* Minimum C grade required for Technologist graduation

Scheduled Breaks:

Fall 2024 intake has scheduled breaks in Summer 2025 and Fall 2026

Winter 2025 intake has a scheduled break in Fall 2026

Signature:	<i>Donald Wang</i>		March 22, 2018
	AMAT Chair		Revised Date