MODEL ROUTE												
School:	School of Engineering Technology & Applied Sciences - AMAT	Program Number:			3748							
Program Title:	Mechanical Engineering Technology - Industrial (PTY)	Credential:	☐ Certificate ☐ Diploma ☐ Degree		☐ Graduate Certificate☐ Advanced Diploma							
Delivery Mode:	☐ Non Co-Op ☑ Co-Op ☑ Fast Track	Duration:	☐ 2 Semesters ☐ 4 Semesters ☐ 8 Semesters		☐ 3 Semesters ☐ 6 Semesters ☐ 9 Semesters							
Intake:	Fall 2023 and Winter 2024											
Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours					
Semester 3	Fall 2023 and Winter 2024											
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 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 2024 & Summ	er 2024									
MT-224 *	Applied Dynamics	MT-121	0	4	4	14	56					
MT-225	Hydraulics & Pneumatics		2	2	4	14	56					
MT-228	Tool Design	MT-153	2	2	4	14	56					
MT-257	Quality Assurance		1	2	3	14	42					
MATH-232	Integral Calculus	MATH-231	0	4	4	14	56					
GNED-500	Global Citizenship: From Social Analysis to Social Action	00.00.470/474	0	3	3	14	42					
ENGL-250	Report Writing in a Technical Environment	COMM-170/171	0	2	2	14	28					
Semester 5		Fall 2024				Total	336					
MT-258	Project: Design & Construction	MT-153 & MT-204 or FT Code	4	0	4	14	56					
MT-335	Machine Design 1	MT-204 or FT Code	0	4	4	14	56					
MTID-311 ♦	Operational Excellence	WIT 204 OF FE COUC	0	4	4	14	56					
MTID-312 ♦	Advanced Quality Concepts	MATH-316 or FT Code	2	2	4	14	56					
MTID-313 ♦	Project Management		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	294					
COOP-222	Professional Technology Year											
COOP-331	Professional Technology Year											
Semester 6	Winter 2026											

MODEL ROUTE											
School:	School of Engineering Technology & Applied Sciences - AMAT	Program Number:	3748								
Program Title:	Mechanical Engineering Technology - Industrial (PTY)	Credential:	— certificate			☐ Graduate Certificate ☐ Advanced Diploma					
Delivery Mode:	☐ Non Co-Op ☑ Co-Op ☑ Fast Track	Duration:	☐ 2 Semesters ☐ 4 Semesters ☐ 8 Semesters		☐ 3 Semesters ☑ 6 Semesters ☐ 9 Semesters						
Intake:	Fall 2023 and Winter 2024										
Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours				
MT-324	Advanced Project: Design & Construction	MT-258	6	0	6	14	84				
MTID-321	Shop Floor Mgmt & Continuous Improvement	MTID-311	2	2	4	14	56				
MTID-322	Manufacturing Automation	MT-256-&-MT-225	2	2	4	14	56				
MTID-323	Facility Planning & Workcell Design	MTID 311 & (MT-151 or MT-106)	2	2	4	14	56				
MTID-324 ♦	Principles of Accounting & Financial Management	MTID 313	0	4	4	14	56				
Total											
Total Program Hours											
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											
Signature:	Donald Wang	March 22, 2018									
AMAT Chair Revised Date											