MODEL ROUTE

School:	School of Engineering Technology & Applied Sciences - AMAT	**Program Number:**	3703
Program Title:	Mechanical Engineering Technology - Design	**Credential:**	☐ Certificate ☐ Diploma ☐ Degree ☐ Graduate Certificate ☑ Advanced Diploma
Delivery Mode:	☑ Non Co-Op ☐ Co-Op ☐ Fast Track	**Duration:**	☐ 2 Semesters ☐ 3 Semesters ☐ 4 Semesters ☑ 6 Semesters ☐ 8 Semesters ☐ 9 Semesters
Intake:	**Fall 2024 & Winter 2025**		

Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours
Semester 1	**Fall 2024 & Winter 2025**						
MT-102	Properties of Material		1	2	3	14	42
MT-103	Machine Shop		3	1	4	14	56
MT-106	CAD I/Blueprint Reading		3	2	5	14	70
PHYS-100	Physics		0	3	3	14	42
MATH-170	Technology Math 2	MATH-140 or Test Score	0	3	3	14	42
COMM-160/161	College Communications 1		0	3	3	14	42
GNED	General Education Elective		0	3	3	14	42
						Total	336
Semester 2	**Winter 2025 & Summer 2025**						
MT-121 *	Applied Statics	PHYS-100	0	4	4	14	56
MT-153	CAD II	MT-106 or (MT-151 & MT-152) or FT Code	4	0	4	14	56
MT-237 ♦	Manufacturing Processes		0	3	3	14	42
MT-256	Applied Electricity	MATH-140 or MATH-170	2	2	4	14	56
MATH-180 *	Technology Math 3	MATH-170 or FT Code	0	3	3	14	42
GNED-500	Global Citizenship: From Social Analysis to Social Action		0	3	3	14	42
COMM-170/171	College Communications 2	COMM-160/161	0	3	3	14	42
						Total	336
Semester 3	**Fall 2025**						
MT-201	CAD/CAM and CNC Programming	(MT-103 & MATH-170/140) or FT Code	4	0	4	14	56
MT-204 *	Strength of Materials	MT-121 & MATH 170	1	3	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)	0	4	4	14	56
MATH-316	Statistics	MATH-170	2	2	4	14	56
AMEG-212 ♦	Applied Ethics in Technology & the Environment		0	2	2	14	28
						Total	308
Semester 4	**Winter 2026**						
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
MT-257	Quality Assurance		1	2	3	14	42

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Delivery Mode:	☑ Non Co-Op ☐ Co-Op ☐ Fast Track	**Duration:**	☐ 2 Semesters ☐ 3 Semesters ☐ 4 Semesters ☑ 6 Semesters ☐ 8 Semesters ☐ 9 Semesters
Intake:	**Fall 2024 & Winter 2025**		

Course Code	Course Title	Pre-Requisite (Course Code)	Lab Hours	Lecture Hours	Total Weekly Hours	Weeks (14)	Total Hours
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
						Total	294
Semester 5	**Fall 2026**						
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
						Total	322
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
GNED	General Education Elective		0	3	3	14	42
						Total	322
						Total Program Hours:	1918

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 Summer 2026

Winter 2025 intake has a scheduled break in Summer 2026

Signature:	*Donald Wang*		April 12, 2022