

Cleveland State University
Washkewicz College of Engineering
Bachelor of Mechanical Engineering Technology (MET)
Fall 2022

MET Degree Map for students immediately eligible for College Writing I and College Chemistry I

First Year

Fall Semester				Spring Semester			
Credits	Major	Gen. Ed.		Credits	Major	Gen. Ed.	
ENG 100 Intensive Writing or ENG 100 Writing I	3		W/C	ESC 102 Tech. Writing or ENG 102 College Writing II	3		W/C
MCE 180 Computer Aided Engineering Lab I	2	X		MCE 181 Computer Aided Engineering Lab II	2	X	
MTH 165/167 Intensive Precalculus I/Precalculus I	3	X	M	MTH 149 Math for Business Majors II	4	X	M
EET 205 DC Circuits	3	X		PHY 221 College Physics I	5	X	NS
GET 255 Intro to Robotics & Automated Systems	3	X		ESC 120 Introduction to Engineering Design	2	X	
ESC 100 New Student Orientation	1		INTRO				
Semester Total	15			Semester Total	16		

Second Year

Fall Semester				Spring Semester			
Credits	Major	Gen. Ed.		Credits	Major	Gen. Ed.	
MET 201 Statics for Engineering Technology	3	X		MET 202 Dynamics for Engineering Technology	3	X	
CHM 251 College Chemistry I	3	X	NS	GET 315 Advanced Programming Methods	3	X	
CHM 256 College Chemistry I Lab	1	X	NS&LAB	PHL 215 Engineering Ethics	3	X	A&H&WAC
GET 285 Science of Alternative Energy	3	X		ESC 130 Engineering Co-op Orientation*	1		
General Education Elective	3		AA DIV	General Education Elective	3		US DIV
Communications Elective (WAC)**	3			General Education Elective***	3		SS
** Either Communication or Business Elective needs to be a WAC.				***See University Notes below			
Semester Total	16			Semester Total	15/16		

Third Year

Fall Semester				Spring Semester			
Credits	Major	Gen. Ed.		Credits	Major	Gen. Ed.	
MTT 300 Applied Math	3	X		MTT 301 Advanced Applied Math	3	X	
MET 320 Advanced Mechanics of Materials	3	X		MET 330 Advanced Dynamics & Vibrations	3	X	
MET 345 Thermodynamics	3	X		MET 350 Fluid Mechanics	3	X	
General Education Elective***	3		A&H	MET 351 Thermal Fluids Lab	2	X	
Business Elective (WAC)**	3			Technical Elective	3	X	
** Either Communication or Business Elective needs to be a WAC.							
Semester Total	15			Semester Total	14		

Fourth Year

Fall Semester				Spring Semester			
Credits	Major	Gen. Ed.		Credits	Major	Gen. Ed.	
MET 410 Design of Machine Elements	3	X		GET 430 Electric Power, Controls & Instruments	3	X	
MET 411 Design of Machine Elements Lab	1	X		GET 431 Electric Power, Controls & Instruments Lab	1	X	WAC
MET 420 Heat Transfer	3	X		MET 450 Mechanical System Design	3	X	
MET 445 Solid Modeling Applications	3	X		Technical Elective	3	X	
MET 470 Senior Design A	1	X	CAP	MET 480 Senior Design B	3	X	CAP
Technical Elective	3	X		General Education Elective***	3		SS
Semester Total	14			Semester Total	16		

Degree Total Hours: 121 or 122 with ESC 130

Assumptions: University Requirement of Foreign Language has been met: two (2) years of same language in high school; or two (2) semesters of same language in college; or passing of language placement test in reading, writing, and speaking of a second language other than English.

College/Program Notes:

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of General Education courses, although the M/QL and W/C requirements should be completed during the first year of study. General Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a **minimum of 121 total credit hours**, of which a **minimum of 42 credit hours** must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many general electives as indicated above or may need additional electives.

University Notes:

General Education Key + Notes	
General Education Electives can be taken in any order except PHL 215 (Engineering Ethics). It must taken after a C or better in ESC 102 or ENG 102 (Tech. Writing or College Writing II).	
INTRO = Introduction to University Life Requirement (one course required)	SS = Social Sciences Requirement (2 courses required, one of which must be focused outside the US)
W/C = Writing/Composition Requirement (two courses required, each C or better)	A&H = Arts & Humanities Requirement (2 courses required, one of which must be focused outside the US)
M = Mathematics (two courses required, each C or better)	DIV = Social Diversity Requirement (2 courses required, one US Diversity and one African American Experience)
NS = Natural Sciences (two courses required, one of which must have a lab – NS&LAB)	WAC/SPAC = Writing/Speaking Across the Curriculum Requirement (3 courses required, one in the major)
ESC 100 is waived for transfer students with 60 credits or more	CAP = Capstone Requirement
* Introduction to Co-op Orientation is highly recommended, yet not required.	*** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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