

Cleveland State University
Washkewicz College of Engineering
Associate of Science to Bachelor of Mechanical Engineering Pathway

SUGGESTED SEQUENCE AT TRI-C

First Year

Fall Semester	Credits	Spring Semester	Credits
ENG 1010/101H College Composition I	3	ENG 1020/102H College Composition II or ENG 2151 Technical Writing	3
MATH 1610 Calculus I	5	MATH 1620 Calculus II	5
CHEM 1300 General Chemistry I	4	PHYS 2310 General Physics I	5
CHEM 130L General Chemistry I Lab	1	OT36 Arts and Humanities U.S. Elective*	3
MET 1100 Technology Orientation	2		
Semester Total	15	Semester Total	16

Second Year

Fall Semester	Credits	Spring Semester	Credits
PHYS 2320 General Physics II	5	MET 2620 Engineering Dynamics	3
MET 2610 Engineering Statics	3	MATH 2410 Linear Algebra	3
MATH 2520 Differential Equations	3	MET 2630 Engineering Strength of Materials	3
MATH 2310 Calculus III	4	OT36 Arts and Humanities Elective	3
OT36 Social & Behavioral Science Elective**	3	OT36 Social & Behavioral Science Non U.S. Elective*	3
Semester Total	18	Semester Total	15
			Total minimum credits earned at Tri-C
			Associate of Science Degree Awarded

SUGGESTED SEQUENCE AT CSU

Third Year

Fall Semester	Credits	Spring Semester	Credits
MCE 180 Computer Aided Engineering I	2	MCE 181 Computer Aided Engineering II	2
ESC 321 Engineering Thermodynamics I	3	MCE 260 Kinematics	3
ESC 301 Fluid Mechanics	3	MCE 276 Engineer. Materials & Manufacturing Processes	3
ECS 152 Programming with MATLAB	3	MCE 286 Manufacturing Processes Lab	1
ESC 315 Electrical Engineering Concepts	3	MCE 324 Introduction to Heat Transfer	3
ESC 282 Engineering Economy	3	MCE 371 Vibrations	3
Semester Total	17	Semester Total	15

Summer Semester

	Credits
MCE 362 Machine Analysis	3

Fourth Year

Fall Semester	Credits	Spring Semester	Credits
MCE 421 Applied Thermodynamics	3	MCE 451 Design Project II	3
MCE 481 Thermodynamics Lab	1	MCE 4XX Tech Elective	3
MCE 441 Linear Control Systems	3	MCE 4XX Tech Elective	3
MCE 450 Design Project I	3	MCE 48X Lab Elective	3
MCE 470 Engineering Measurements	3	PHL 215 Engineering Ethics	3
MCE 480 Measurements Lab	1		
MCE 365 Machine Design I	3		
Semester Total	17	Semester Total	15
			Bachelor of Mechanical Engineering Degree Awarded
			131

* At least one of the non-US courses must be designated "NW" (i.e. AHNW or SSNW 100)

**Social and Behavioral Science Elective course suggestions: SOC 2310, 2550.

Additional Information:

Assumptions: college-level readiness in MATH (eligible to register for Calculus I) and ENG; no Foreign Language Deficiency (FLD).

Grade restriction: Computer Science students are limited to two grades of "D" in CIS courses.

CSU requires a minimum of 120 total credit hours for graduation. At least 30 credits must be completed in-residence at CSU. At least 24 of the in-residence credits must be completed at the upper division (300/400) level. An overall total of 42 upper division (300/400) level credits are required. Students deficient in total credits or in-residence credits must take additional elective credits to meet the minimum requirements. Depending upon other elective choices made, students may not need as many general electives as indicated above, or may need additional electives.

This Transfer Pathway completes the Associate of Science degree, which must total at least 60 semester credits and includes 36 credits of the Ohio Transfer 36 (OT36, formerly OTM), which are approved Tri-C general education requirements. OT36 details can be found at <https://www.ohiohighered.org/Ohio-Transfer-36>

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For students who have earned an Associate of Science degree from Cuyahoga Community College, the following general education categories will be considered met: English Composition, Mathematics/Quantitative Literacy, Arts & Humanities (including the non-US/ALAAME requirement), Social Sciences (including the non-US/ALAAME requirement), Natural Science (including the lab requirement) and Social Diversity. Students would still be required to take at least two Writing Across the Curriculum (WAC) courses (including one in the major) and complete a Capstone Experience in the major. The WAC and Capstone Experience requirements are typically met with upper-division courses. Students who do not complete the Associate of Arts degree are responsible for the completion of the entire General Education Requirements at Cleveland State University.

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This map represents one example of how to complete the AS and BS degrees. Students should work closely with counselors/advisors at both institutions to discuss options.

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