

**Cleveland State University**  
**Washkewicz College of Engineering**

Name \_\_\_\_\_ I.D. No. \_\_\_\_\_

**Mechanical Engineering**  
**Curriculum Sheet**  
*REVISED 5-25-2021*

<u>Fall Semester – Year 1</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester – Year 1</u>	<u>Cr.</u>	<u>Grade</u>
ENG 101 College Writing I [W/C]*	3	_____	ESC 102 Tech. Writing & Prof. Comm. [W/C]*	3	_____
MTH 181 Calculus I [M/QL]*	4	_____	MTH 182 Calculus II [M/QL]*	4	_____
CHM 261 General Chemistry I [NS]*	3	_____	ESC 152 Programming with Matlab	3	_____
CHM 266 General Chemistry I Lab [NS/Lab]*	1	_____	PHY 241 University Physics I [NS]*	5	_____
ESC 100 New Student Orientation [INTRO]*	1	_____	MCE 181 CAE Lab II	2	_____
ESC 120 Introduction to Engineering	2	_____	ESC 130 Engineering Co-op Orientation***	1	_____
MCE 180 CAE Lab I	2	_____			
<i>Semester Total</i>	16		<i>Semester Total</i>	17/18	

<u>Fall Semester – Year 2</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester – Year 2</u>	<u>Cr.</u>	<u>Grade</u>
ESC 250 Differential Equations for Engineers	3	_____	ESC 202 Dynamics	3	_____
MTH 281 Multivariable Calculus	4	_____	ESC 301 Fluid Mechanics	3	_____
ESC 201 Statics	3	_____	PHY 242 University Physics II [NS]*	5	_____
MCE 276 Eng. Matls & Manuf. Processes	3	_____	ESC 211 Strength of Materials	3	_____
MCE 286 Manufacturing Processes Lab	1	_____	General Education Elective [DIV-US]*	3	_____
<i>Semester Total</i>	14		<i>Semester Total</i>	17	

<u>Fall Semester – Year 3</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester – Year 3</u>	<u>Cr.</u>	<u>Grade</u>
ESC 321 Engineering Thermodynamics I	3	_____	MCE 315 Electrical Systems for Mechanical Eng.	3	_____
ESC 350 Lin. Algebra for Engineers	3	_____	MCE 365 Machine Design I	3	_____
MCE 260 Kinematics	3	_____	MCE 371 Vibrations	3	_____
MCE 324 Intro to Heat Transfer	3	_____	MCE 421 Applied Thermodynamics	3	_____
MCE 362 Machine Analysis	3	_____	MCE 481 Thermodynamics Lab	1	_____
<i>Semester Total</i>	15		General Education Elective [SS]*	3	_____
			<i>Semester Total</i>	16	

<u>Fall Semester – Year 4</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester – Year 4</u>	<u>Cr.</u>	<u>Grade</u>
MCE 441 Intro. to Linear Controls	3	_____	MCE 451 Design Project II [Cap/WAC/SPAC]* MCE	3	_____
MCE 450 Design Project I [Cap/WAC/SPAC]	2	_____	4XX Mechanical Eng. Elective	3	_____
ESC 282 Engineering Economy [SS]*	3	_____	MCE 48X Mech. Eng. Lab Elective	3	_____
MCE 470 Engineering Measurements	3	_____	PHL 215 Engineering Ethics [A&H/WAC]*	3	_____
MCE 480 Measurements Lab	1	_____	General Education Elective [DIV-AA]*	3	_____
MCE 4XX Mechanical Eng. Elective	3	_____	General Education Elective [A&H]*	3	_____
<i>Semester Total</i>	15		<i>Semester Total</i>	18	

**Degree Total: 128 (Excluding ESC 130 required for co-op)**

**University Notes:**

**\*Gen Ed Key:**

INTRO = New student orientation, not required for transfer students  
W/C = Writing/Composition Requirement (two courses; C or better required)  
M/QL = Mathematics/Quantitative Literacy Requirement (two courses)

NS = Natural Sciences (two courses, one of which must have a lab)

\*\* Of the SS and A&H courses, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

\*\*\* Required for the Engineering Co-op program only

SS = Social Sciences Requirement (2 courses)\*\*

A&H = Arts & Humanities Reqmnt (2 courses)\*\*

DIV = Social Diversity Reqmnt (2 courses; one US Diversity, and one African American Exp.)

WAC/SPAC = Writing/Speaking Across the Curriculum Reqmnt (3 courses, one in the major)

CAP = Capstone Requirement

**This information is provided solely for the convenience of the reader, and the University expressly disclaims any liability which may otherwise be incurred. This publication is neither a contract nor an offer to make a contract. While every effort has been made to ensure the accuracy of the information, the University reserves the right to make changes at any time with respect to course offerings, degree requirements, services provided, or any other subject addressed herein.**

Advisor \_\_\_\_\_ Date \_\_\_\_\_

**Cleveland State University**  
**Washkewicz College of Engineering**

Name \_\_\_\_\_ I.D. No. \_\_\_\_\_

**Mechanical Engineering**  
**Co-op Curriculum Sheet**  
*REVISED 1-8-2020*

<u>Year 1</u>	<u>Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	
ENG 101	College Writing I [W/C]*	3	_____	ESC 102	3	_____	Work or school	
MTH 181	Calculus I [M/QL]*	4	_____	[W/C]*				
CHM 261	General Chemistry I [NS]*	3	_____	MTH 182	4	_____		
CHM 266	General Chemistry I Lab [NS/Lab]*	1	_____	ESC 152	3	_____		
ESC 100	New Student Orientation [INTRO]*	1	_____	PHY 241	5	_____		
ESC 120	Introduction to Engineering	2	_____	MCE 181	2	_____		
MCE 180	CAE Lab I	2	_____	ESC 130	1	_____		
	<i>Semester Total</i>	<i>16</i>			<i>Semester Total</i>	<i>18</i>		
<u>Year 2</u>	<u>Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>
ESC 250	Differential Equations for Engineers	3	_____	ESC 202	3	_____	ESC 400 Co-op	1
MTH 281	Multivariable Calculus	4	_____	ESC 301	3	_____		
ESC 201	Statics	3	_____	PHY 242	5	_____		
MCE 276	Eng. Matls & Manuf. Processes	3	_____	ESC 211	3	_____		
MCE 286	Manuf. Processes Lab	1	_____	General Education Elective [DIV-US]*	3	_____		
	<i>Semester Total</i>	<i>14</i>			<i>Semester Total</i>	<i>17</i>		
<u>Year 3</u>	<u>Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester.</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>
ESC 321	Engineering Thermodynamics I	3	_____	ESC 300	6	_____	Gen Ed Elective	3
ESC 350	Lin. Algebra for Engineers	3	_____				Gen Ed Elective	3
MCE 260	Kinematics	3	_____					
MCE 324	Intro to Heat Transfer	3	_____					
MCE 362	Machine Analysis	3	_____					
	<i>Semester Total</i>	<i>15</i>						
<u>Year 4</u>	<u>Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>
ESC 300	Co-op	6	_____	ESC 315	3	_____	ESC 400 Co-op	1
				MCE 365	3	_____		
				MCE 371	3	_____		
				MCE 421	3	_____		
				MCE 481	1	_____		
				General Education Elective [SS]*	3	_____		
					<i>Semester Total</i>	<i>16</i>		
<u>Year 5</u>	<u>Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>		
MCE 441	Intro. to Linear Controls	3	_____	MCE 451	3	_____		
MCE 450	Design Project I [Cap/WAC/SPAC]	2	_____	[Cap/WAC/SPAC]*				
ESC 282	Engineering Economy [SS]*	3	_____	MCE 4XX	3	_____		
MCE 470	Engineering Measurements	3	_____	MCE 48X	3	_____		
MCE 480	Measurements Lab	1	_____	PHL 215	3	_____		
MCE 4XX	Mechanical Eng. Elective	3	_____	[A&H/WAC]*				
				General Education Elective [DIV-AA]*	3	_____		
				General Education Elective [A&H]*	3	_____		
	<i>Semester Total</i>	<i>15</i>			<i>Semester Total</i>	<i>18</i>		

**Degree Total: 129 (Excluding ESC 300/400 co-op courses) – SEE GEN ED KEY ON REVERSE SIDE**

Advisor \_\_\_\_\_ Date \_\_\_\_\_