



# **Aerospace Engineering Program Agreement**

Western Michigan University Bachelor of Science in Engineering, Aerospace Engineering (B.S.E.)

### Kalamazoo Valley Community College

Engineering, Associate of Science (A.S.)

Catalog Year 2023 - 2024

(MTA) (30 credits minimum) See attached Kalamazoo Valley MTA guide for specific courses from Kalamazoo Valley that will fulfill the MTA requirements				
Kalamazoo Valley Course	WMU (Western Essential Studies) Equivalent	Transfer Credit Hours		
English Composition – ENG 110 or ENG 160, and one of the following COM 113, COM 210, ENG 111, ENG, 112, ENG 127, ENG, 227, ENG 260	IEE 1020 and varies	6		
Humanities - 2 courses from different subject areas	Varies	6		
Mathematics – MATH 160	MATH 1220	5		
Science –CHM 120, PHY 221	CHEM 1100/10, PHYS 2050/60	9		
Social Sciences – 2 courses from different subject areas	Varies	6		
<b>KALAMAZOO VALLEY MTA CREDIT HOURS</b>		32 CREDIT HOURS		

II. KALAMAZOO VALLEY COURSES – (30 credits)			
Kalamazoo Valley Course	WMU Equivalent	Transfer Credit Hours	
PSI 100, PSI 101, PSI 102, or PSI 126	PSCI 1000, PSCI 2000, PSCI 2020, or PSCI Credit	3	
WPE	Varies	2	
CIS 150	CIS Credit	3	
EDMT 130	EDMM 1420	4	
MATH 162	MATH 1230	5	
CIS 209	CS 1200	3	
MATH 260	MATH 2720	5	
PHY 222	PHYS 2070/80	5KV	
SECTION II KALAMAZOO VALLEY CREDIT HOURS		30 CREDIT HOURS	
TOTAL KALAMAZOO VALLEY CREDIT HOUR	S	62 CREDIT HOURS	

III. WMU COURSES REQUIRED FOR PROGRAM DEGREE (60 credits)			
WMU Course	WMU Course Title	WMU Credit Hours	
MATH 3740	Differential Equations	4	
CHEM 1120/30	Chemistry II	4	
ME 2320	Thermodynamics	3	

#### KVCC – WMU Aerospace Engineering Program Agreement (Catalog Year 2023 – 2024), Page 2

TOTAL CREDIT HOURS		77 CREDIT HOURS AT WMU
Varies	Varies	
WMU Elective Credits to Reach 60		· · ·
WES Global Perspective		3
Aerospace Electives WES Global Perspective		3
	Aero Eng. Project	9
AE 4800 NP	Aerospace Propulsion II Aero Eng. Project	3
AE 4690 AE 4760	Aircraft Design	3
AE 4790	Aero Eng. Project Plan	1
AE 4660	Aerospace Propulsion	3
AE 4630	Aircraft Structural Design	3
AE 4600	Aircraft Stability & Control	3
AE 4700	Orbital Mechanics	3
ME 3350	Instrumentation	3
AE 3800	Flight Vehicle Performance	3
AE 3710	Aerodynamics II	3
ME 3620	Theory of Eng. Experimentation	3
ME 3600	Control Systems	3
AE 3610	Aerodynamics	4
ME 2580	Dynamics	3
ECE 2100	Circuit Analysis	4
ME 2570	Mechanics of Materials	3
ME 2560	Statics	3

TOTAL CREDITS (I –III)		
62 Kalamazoo Valley Credits		
77 WMU Credits		
139 Total Credits		
Minimum credits required for Kalamazoo Valley associate degree: 62	Minimum credits required at WMU: 60	Total required credits: 122

Minimum credits required for Kalamazoo Valley associate degree: 62

Minimum credits required at WMU: 60

Total required credits: 122

<sup>+</sup> Professional level courses that require acceptance into the WMU program

<sup>GP</sup> WES level 3 courses satisfying Global Perspective

<sup>NP</sup> WES level 3 courses satisfying National Perspective

#### Advising Notes

Kalamazoo Valley Student Development Services	269-488-4040	development@kvcc.edu
WMU Academic Advisor	269-276-3270	kyle.m.manninen@wmich.edu
Program Agreement		

This agreement shall commence as of Nov 6th, 2023. This program agreement shall abide by all language of the Institutional Agreement between Kalamazoo Valley Community College and Western Michigan University.

#### Signatures

Kalamazoo Valley Community College

#### Western Michigan University

Dr. Mark Dunneback Dean of Instruction Business & Technical Careers Kalamazoo Valley Community College

William Liou, Chair, Mechanical & Aerospace Engineering Western Michigan University

## KVCC – WMU Aerospace Engineering Program Agreement (Catalog Year 2023 – 2024), Page 3

Dr. Paige Eagan Provost & Vice-President for Instruction & Student Services Kalamazoo Valley Community College Steve Butt, Dean, College of Engineering & Applied Sciences Western Michigan University