

Addendum D to the 2019 Dual Degree Agreement between WMU and INTEC
Mechanical Engineering Program

Below are the degree requirements for WMU's Mechanical Engineering Program as of July 2019. WMU will award a degree to all students who successfully complete all of the degree requirements (as detailed in the current degree catalog on the WMU Registrar's Office website <https://wmich.edu/registrar>) and who meet all of WMU's graduation requirements. Students are encouraged to meet with their academic advisor at WMU to ensure they will meet all of the requirements to graduate.

WMU ME Program			INTEC courses			Courses to be taken at WMU and credit hours
WMU code	WMU name	First Semester WMU Credits	INTEC code	INTEC Course Equivalent	Credits Transferred	
MATH 1220 or MATH 1700	Calculus I	4	CBM 102	Differential Calculus	4	
CHEM 1100	General Chemistry I	3	CBQ 207	Chemistry I	3	
CHEM 1110	General Chemistry Laboratory I	1	CBQ 207L	Chemistry I Lab	1	
IEE 1020	Technical Communication	3	AHH 201	Rhetoric and Composition	3	
EDMM 1420	Engineering Graphics	3	INM 201	Mechanical Drawing I	3	
TGE D1	General Education Area I - Fine Arts	3	INM 202	Mechanical Drawing II	3	
			AHA 201	Art Appreciation I	3	
Second Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
MATH 1230	Calculus II	4	CBM 201	Calculus II	4	
PHYS 2050	University Physics I	4	CBF 210	Mechanical Physics I	4	
PHYS 2060	University Physics I Laboratory	1	CBF 210L	Mechanical Physics I Lab	1	
CS 1200	Programming in C for Engineers	3	INS 212	Programming I	3	
ME 2615	Introduction to Mechanical Engineering	3	INS 212L	Programming I Lab	3	
TGE D2	General Education Area II - Humanities	4	CSS 101	Human Being and Society	4	3
Third Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
MATH 2720	Multivariate Calculus and Matrix Algebra	4	CBM 202	Calculus III	4	
PHYS 2070	University Physics II	4	CBF 211	Mechanical Physics II	4	
PHYS 2080	University Physics II Laboratory	1	CBF 211L	Mechanical Physics II Lab	1	
ME 2320	Thermodynamics I	3	INM 300	Thermodynamics	3	
ME 2560	Statics	3	ING 216	Statics	3	
			ING 216L	Statics Lab	3	
Fourth Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
MATH 3740	Differential Equations and Linear Algebra	4	CBM 203	Differential Equations	4	
ME 2500	Materials Science	3	INI 383	Science and Engineering of Materials	2	
			INI 383L	Science and Engineering of Materials Lab	1	
ME 2570	Mechanics of Materials	3	ING 217	Mechanics of Materials	3	
			ING 217L	Mechanics of Materials Laboratory	3	
				OR		
			INC 213	Mechanics of Deformable Solids		
			INC 213L	Mechanics of Deformable Solids Laboratory		
ECE 2100	Circuit Analysis	4	INE 377	Electric Circuits I	4	
			INE 377L	Electric Circuits I Lab	4	
				OR		
ME 2580	Dynamics	3	INE 319	Electrical Circuits	3	
			ING 212	Dynamics	3	
			ING 212L	Dynamics Lab	3	
Fifth Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
ME 3560	Fluid Mechanics	4			4	
ME 3580	Mechanism Analysis	3			3	
ME 3620	Engineering Experimentation	3			3	
CHEM 1120	General Chemistry II	4	CBQ 208	Chemistry II	4	
CHEM 1130	General Chemistry II Lab	4	CBQ 208L	Chemistry II Lab	4	
	OR			OR		
PHYS 3090	Introductory Modern Physics	3	CBF 212	Mechanical Physics III	3	
PHYS 3090	Introductory Modern Physics Lab	3	CBF 212L	Mechanical Physics III Laboratory	3	
ME 3650	Machine Design I	3			3	
Sixth Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
ME 3350	Instrumentation	3			3	
ME 3600	Control Systems	3			3	
ME 4310	Heat Transfer	3			3	
ME 4320	Thermodynamics II	3			3	
ECE 2110	Machine & Electronics Circuits	3			3	

Both ING 217 and INC 213 are equivalent courses, but students generally pick the one that suits their schedule

INE 319 is equivalent to INE 377 and INE 377L (all of these courses still exist)

Seventh Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
ME 4790	Mechanical Eng. Project Planning	3				3
ME	ME Design Elective	3				3
ME	ME Elective	3				3
ME	ME Elective	3				3
TGE D5	General Education Area V - Social Behavioral Sciences	3	CSG-204	Social and Cultural Anthropology	3	
TGE D3	General Education Area III - U.S. Cultures and Issues	3	ECO 201	Principles of Microeconomics		3
Eighth Semester						
WMU code	WMU name	WMU Credits		INTEC Course Equivalent	Credits	
ME 4800	Mechanical Eng. Project	3				3
ME	ME Design Elective	3				3
ME	ME Elective	3				3
TGE D8	General Education Area VIII- Health & Well Being	2	AHD 101	Physical Education and Sport	2	
TGE D4	General Education Area IV - Other Cultures	3				3
Required Credits to graduate		132			74	58
Total credits accounted for in this program		132				

- Courses to be taken at WMU in the 3rd and 4th year
- Courses with alternative options
- Multiple courses need to be transferred to be equivalent

At the time of the signing of this addendum, WMU is undergoing changes to its general education curriculum. The courses highlighted in green may or may not change during this curriculum revision, and therefore any green courses taken at INTEC may not count for this program beginning Fall 2020. If changes are made, WMU will work with students to help them understand their options to complete the program.

Approved By

Steven Butt 10/22/19
 Steven Butt, Interim Dean (date)

K. Naghshineh 10/22/19
 Koorosh Naghshineh, Chair (date)
 Department of Mechanical and Aerospace Engineering
 College of Engineering and Applied Sciences, WMU

Tulio R.
 Tulio Rodriguez (date)
 Director, Transfer Programs, INTEC