

Industrial Engineering and Management (IE&M) - Accelerated MBA Curriculum

Curriculum Guide effective 2023 ~ North Dakota State University

STUDENT _____

ID # _____

Advisor _____

	Fall				Spring			
	Course	Crs	Sem	Grade	Course	Crs	Sem	Grade
Freshman (34 crs)	CHEM 121	General Chemistry I	3		IME 111	Introduction to IME	3	
	CHEM 121L	General Chem Lab I	1		MATH 166	Calculus II	4	
	[C] ENGL 110	College Composition I	4		ME 212	Fund of Visual Comm	3	
	ENGL 120	College Composition II	3		ME 221	Engr Mechanics I	3	
	MATH 165	Calculus I	4		CHEM 122	General Chemistry II	3	
	Comp Sci Elect	(see side bar)	3					
		18			16			
Sophomore (27-59 crs)	COMM 110	Fund of Public Speaking	3		IME 311	Work/Station Design	3	
	IME 330	Mfg Processes	3		MATH 266	Differential Equations	3	
	MATH 129	Basic Linear Algebra	3		PHYS 252	University Physics II	4	
	MATH 259	Multivariate Calculus	3		PHYS 252L	University Physics II Lab	1	
	ME 222	Engr Mechanics II	3		ME 223	Mechanics of Materials	3	
	Gen Ed - ECON 105	Elements of Economics	3		Gen Ed Elect		3	
		18			17			
Junior (60-89 crs)	IME 656	Program & Project Mgmt	3		IME 461	Quality Assurance & Cntrl	3	
	IME (replaces STAT 330) 460	Evaluation of Engr Data	3		IME 670	Operations Research I	3	
	ENGL 321	Writing in Tech Profession	3		IME 672	Simulation Bus & Indl Sys	3	
	CE 309	Fluid Mechanics	3		ME 350	Thermodynamics/Heat Trsf	3	
	IME 640	Engineering Economy	3		Gen Ed Elect	(see side bar)	3	
					Wellness Elect	(see side bar)	2	
		15			17			
Senior (90+ crs)	Gen Ed - ENGR 327	Ethics, Engineering, and Techno	3		IME 450	Systems Engr & Mgmt	3	
	IME 680	Production & Inventory Cntrl	3		Engr Sci Elect	(see side bar)	3	
	IME 482	Automated Mfg Systems	3		IME 489	IME Capstone	3	
	IME 485	Indl & Mfg Facility Design	3		Technical Elect	(see side bar)	3	
	MGMT (IME TECH) 320	Found. Of Mngt.	3		MRKT (IME TECH) 320	Foundation of Marketing	3	
ACCT 102	Fund. of Acctnt	3		FIN 320	Principles of Finance	3		
		18			18			
				TOTAL CREDITS	137			
MBA	MBA 701	Strategic Cost Management	2		MBA 705	Strategic Marketing Management	2	
	MBA 702	Advanced Financial Management	2		MBA 706	Managing Information Resources	2	
	MBA 703	Advanced Organizational Behavior	2		MBA 707	Microeconomics for Managers	2	
	MBA 704	Supply Chain and Operations Manag	2		MBA 708	Advanced Strategic Management	2	
			8			8		

General Education Electives			
<i>See Registration Schedule for approved courses.</i>			
	Crs	Sem	Grade
Humanities/Fine Arts [A]			
ENGR 327	3		
*	3		
Social/Behavioral Sciences [B]			
ECON 105	3		
*	3		
W- Wellness	2		
	14		
<i>Check off once completed</i>			
D - Cultural Diversity: double up with [A] or [B]			
G - Global Perspectives: double up with [A] or [B]			

IE&M Electives			
<i>Approved electives are listed on the back of this page.</i>			
	Crs	Sem	Grade
Computer Science Elective	3		
<i>Take ONE of the following 4 courses:</i>			
CSCI 122, ECE 173, CSCI 159 or CSCI 160			
Engineering Science	12		
CE 309, ME 223, & ME 350	9		
<i>Choose ONE of the following 3 courses below:</i>			
ECE 275 or ECE 301 or EE 206	3-4		
Technical Electives	9		
MGMT 320	3		
MRKT 320	3		
*			

"T" indicates requirement satisfied with transfer credits.

* See reverse side for elective information.

Grades less than "C" will not be accepted for CHEM, MATH, and PHYS.
 [C] First Year students with an ACT score of 18 or higher in English may register for ENGL 120. A passing grade will be awarded for ENGL 110 by completing ENGL 120 with a "C" or better.

IE&M BS + MBA		
MBA Prerequisites		
ACCT 102	Fundamentals of Accounting	3
ECON 105	Elements of Economics	3
FIN 320	Principles of Finance	3
MGMT 320	Foundations of Management	3
MRKT 320	Foundations of Marketing	3
IME 460 (STAT 330)	Evaluations of Engineering Data	3
		18
MBA Electives		
IME 656	Program and Project Management	3
IME 640	Engineering Economy	3
IME 670	Operations Research	3
IME 672	Simulation of Business and Industrial Systems	3
IME 680	Production and Inventory control	3
		15
MBA Core		
MBA 701	Strategic Cost Management	2
MBA 702	Advanced Financial Management	2
MBA 703	Advanced Organizational Behavior	2
MBA 704	Supply Chain and Operations Management	2
MBA 705	Strategic Marketing Management	2
MBA 706	Managing Information Resources	2
MBA 707	Microeconomics for Managers	2
MBA 708	Advanced Strategic Management	2
		16
	Total Sum	49

Completed during the 4-years BS curriculum

Completed during the 5th year

MBA PreReq Acct 102, Econ 105, Fin 320, MGMT 320 or MRKT 320, STAT 330

MBA Electives 14 crs min

MBA Substitutes

MBA Core 16 crs min, 8 credits per semester

MBA	IME
ACCT 102	N/A
ECON 105	IME Gen Ed
FIN 320	N/A
MGMT 320	IME TECH
MRKT 320	IME TECH
STAT 330	IME 460