INDUSTRIAL ENGINEERING TRANSFER, AS
OSU ADVISING GUIDE

Prerequisites and Course Availability per Term

(for complete information, see 2016-2017 UCC Catalog) **REVISED 10/07/16**

	UCC Course No. and Course Name		Term Offered F	W	S	S	Credits	Prerequisites/Notes		OSU Course No.	Credits
Term 1	CH 221[E]	General Chemistry I /Lec/Lab/Rec	x				5	MTH 111		CH 201 / CH 231 Lec & CH 261 Lab	3/4
	ENGR 111	Engineering Orientation I	x				3	MTH 65		ME 101	2
	MTH 251[E]	Calculus I	x	x			4	MTH 112		MTH 251	4
	WR 121[E]	English Composition: Intro to Argument	x	x	x	x	4	WR 115 or Placement Test	16	WR 121	3
	DRF 111	CAD I *(See Note 2)*	x								
Term 2	CH 222	General Chemistry II		x			5	CH 221		CH 202+CH 205 Lab / CH 232 Lec & CH 262 Lab	4
	ENGR 112[E]	Engineering Orientation II		x			3	ENGR 111		ENGR 112	3
	MTH 252[E]	Calculus II		x	x		4	MTH 251		MTH 252	4
	HPE 295	Wellness & Health	x	x	x	x	3			HHS 231 & HHS 241	3
	Perspectives	General Ed Req - See Advisor	x	x	x	x	3		18	Perspectives Elective - See Advisor	3
Term 3	Perspectives	Biological Science With Lab			x		4			Biological Science Elective	4
	ENGR 245	Engineering Graphics			x		3			ENGR 248	3
	MTH 253[E]	Calculus III			x		4			UCC MTH 251 & MTH 261 = OSU MTH 306	4
	MTH 261[E]	Linear Algebra			x		2	MTH 111 Algebra		See note above for MTH 306	
	SP 111[E]	Public Speaking	x	x	x		4	WR 095	17	COM 111	3
Summer											
Term 4	ENGR 201	Electrical Fundamentals I	x				4	MTH 251 Co-requisite		ENGR 201	3
	ENGR 211[E]	Statics	x				4	MTH 112		ENGR 211	3
	MTH 254[E]	Vector Calculus I	x				4	MTH 252		MTH 254	4
	PH 211[E]	Physics I w/Calculus	x				5	MTH 251 Co-requisite		PH 211 & PH 221 Rec	4
									17	ECON 201 or 202 Perspectives Elective - SP&I	3
Term 5	ECON 201 or ECON 202	Economics	x	x	x		3	WR 121-123 & MTH 111		Perspectives Elective - SP&I	3
	ENGR 212[E]	Dynamics		x			4	ENGR 211		ENGR 212	4
	MTH 256[E]	Differential Equations		x			4	MTH 252		MTH 256	4
	PH 212[E]	Physics II w/Calculus		x			5	PH 211		PH 212 & PH 222 Rec	4
									16		
Term 6	ENGR 213	Strength of Materials			x		4	ENGR 211		ENGR 213	4
	MTH 265	Statistics for Engineers & Scientists			x		4	MTH 251		ST 314 - See Note 3	4
	PH 213[E]	Physics III w/Calculus			x		5	PH 212		PH 213 & PH 223 Rec	4
	WR 227	Technical Report Writing	x	x	x	x	3	WR 222		WR 327	3
									16		
	TOTAL DEGREE CREDITS						100				

*A grade of "C" or better is required for all courses.

Program Advisor:

NOTES:

1. [E]Required by OSU College of Engineering for entry into the Pro Program
2. Recommend student take DRF 112 CAD I (AutoCAD) during all fall quarter of Year 1 and potentially take DRF 112 CAD II (AutoCAD). Autocad courses will increase opportunities for paid summer internship and acceptance into MECOP, and help with ENGR 245 (SolidWorks).
3. Students can take 5 Perspective Electives for Humanties/Social Science that tranfer to OSU as General Ed requirements. Seee Advisor.
4. ENGR 391 Engineering Economics can be taken online through OSU

Industrial Engineering (IE) - Business Engineering Option
MECOP Program Guide

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	Fall		Winter		Spring		Summer	
Freshman	MIME 101 Intro to MIME	3	ENGR 248 Engr Graphics - 3D Modeling	3	**ENGR 112 Intro Engr Computing**	3		
	CH 201 Chem for Engineers	3	CH 202 Chem for Engineers	3	**MTH 254 Vector Calculus**	4		
	MTH 251 Differential Calculus	4	**MTH 252 Integral Calculus**	4	**COMM 111 or 114 Communication**	3		
	WR 121 English Comp	3	HHS 231 + PAC Lifetime Fitness & PAC	3	**PH 211 Physics w/Calculus I**	4		
	Perspective (Western Culture)	3	Perspective (Cultural Diversity)	3	Difference, Power & Discrimination	3		
	Total	16	Total	16	Total	17	Total	0
Sophomore	**ENGR 211 Statics**	3	**ENGR 213 Strength of Materials**	**3**	ENGR 212 Dynamics	3		
	IE 285 Intro to IE and MfgE	3	IE 212 Computational Mthds for IE	4	ST 314 Statistics for Engineers	3		
	MTH 256 Applied Differential Equations	4	**MTH 306 Matrix & Power Series**	4	*WR 327 Technical Writing*	*3*		
	PH 212 Physics w/Calculus II	4	**PH 213 Physics w/Calculus III**	4	ME 250 Intro to Mfg Processes	1		
					Perspective (Social Proc. & Institutions)	3		
					ENGR 390 Engineering Economy	3		
	Total	14	Total	15	Total	16	Total	0
Junior	*MATS 321 Intro to Material Science*	*4*	*IE 356 Experimental Design for Industrial Processes*	*4*	**MECOP Internship**			
	IE 355 Statistical Quality Control	*4*	*IE 366 Work Systems Engineering*	*4*				
	IE 367 Production Planning & Control	4	*IE 368 Facility Design & Operations Management*	*4*				
	BA 211 Financial Accounting	4	MFGE 336 Production Engineering	4				
	ENGR 407 MECOP Seminar	*1*						
	Total	17	Total	16				
Senior	IE 412 Information Systems Engineering	4	ENGR 201 Electrical Fundamentals I	3	**MECOP Internship**			
	IE 425 Industrial Systems Optimization	4	IE 415 Similation & Decision Support Systems	4				
	IE 475 Advanced Manufacturing Costing Techniques	3	IE 471 Project Management in Engineering	3				
	BA 230 Business Law	4	Perspective (Literature & Arts)	3				
	Total	15	Total	13				
Senior	IE 497 Senior Design	4	IE 498 Senior Design	4	**Bold Courses** in gray cells are used in the pre-core GPA calculation and must be completed prior to taking Pro courses.			
	BA 390 Marketing	4	IE 470 Management Systems Engineering	4				
	Perspective (Biology + Lab)	4	Synthesis (Contemporary Global Issues)	3	*Italic Courses* in blue cells must be completed prior to FIRST MECOP internship			
	FIN 342 Advanced Financial Management	4	Synthesis (Science Technology & Society)	3	Underlinded Courses in orange cells must be completed prior to SECOND MECOP Internship			
	Total	16	Total	14	Double Underlined Courses in yellow cells must be completed for the Business Engineering Option			

Revised 6/16/2015

Industrial Engineering (IE) - Business Engineering Option
Non-MECOP Program Guide

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	Fall		Winter		Spring		Summer	
Freshman	MIME 101 Intro to MIME	3	ENGR 248 Engr Graphics - 3D Modeling	3	**ENGR 112 Intro Engr Computing**	3		
	CH 201 Chem for Engineers	3	CH 202 Chem for Engineers	3	**MTH 254 Vector Calculus**	4		
	MTH 251 Differential Calculus	4	**MTH 252 Integral Calculus**	4	**COMM 111 or 114 Communication**	3		
	WR 121 English Comp	3	HHS 231 + PAC Lifetime Fitness & PAC	3	**PH 211 Physics w/Calculus I**	4		
	Perspective (Western Culture)	3	Perspective (Cultural Diversity)	3	Difference, Power and Discrimination	3		
	Total	16	Total	16	Total	17	Total	0
Sophomore	**ENGR 211 Statics**	3	**ENGR 213 Strength of Materials**	**3**	ENGR 212 Dynamics	3		
	IE 285 Intro to IE and MfgE	3	IE 212 Computational Mthds for IE	4	ST 314 Statistics for Engineers	3		
	MTH 256 Applied Differential Equations	4	**MTH 306 Matrix & Power Series**	4	WR 327 Technical Writing	3		
	PH 212 Physics w/Calculus II	4	**PH 213 Physics w/Calculus III**	4	ME 250 Intro to Mfg Processes	1		
					Perspective (Social Proc. & Institutions)	3		
					ENGR 390 Engineering Economy	3		
	Total	14	Total	15	Total	16	Total	0
Junior	MATS 321 Intro to Material Science	4	IE 356 Experimental Design for Industrial Processes	4	ENGR 201 Electrical Fundamentals I	3		
	IE 355 Statistical Quality Control	4	IE 366 Work Systems Engineering	4	Perspective (Literature & Arts)	3		
	IE 367 Production Planning & Control	4	IE 368 Facility Design & Operations Management	4	BA 230 Business Law	4		
	BA 211 Financial Accounting	4	MFGE 336 Production Engineering	4	Perspective (Biology + Lab)	4		
	Total	16	Total	16	Total	14	Total	0
Senior	IE 497 Senior Design	4	IE 498 Senior Design	4	BA 390 Marketing	4		
	IE 412 Information Systems Engineering	4	IE 415 Similation & Decision Support Systems	4	FIN 342 Advanced Financial Management	4		
	IE 425 Industrial Systems Optimization	4	IE 471 Project Management in Engineering	3	Synthesis (Contemporary Global Issues)	3		
	IE 475 Advanced Manufacturing Costing Techniques	3	IE 470 Management Systems Engineering	4	Synthesis (Science Technology & Society)	3		
	Total	15	Total	15	Total	14	Total	0

Bold Courses in gray cells are used in the pre-core GPA calculation and must be completed prior to taking Pro courses.

Double Underlined Courses in yellow cells must be completed for the Business Engineering Option

Revised 6/16/2015