## INDUSTRIAL ENGINEERING TRANSFER, AS OSU ADVISING GUIDE

Prerequisites and Course Availability per Term (for complete information, see 2016-2017 UCC Catalog)

REVISED 11/20/16

			Те	Term Offered			Credits		
	ι	JCC Course No. and Course Name	F	w	S	S	ů.	Prerequisites/Notes	
	CH 221 <sup>E</sup>	General Chemistry I /Lec/Lab/Rec	x				5	MTH 111	
-	ENGR 111	Engineering Orientation I	x				3	MTH 65	
Term	MTH 251 <sup>E</sup>	Calculus I	x	x			5	MTH 112	
-	WR 121 <sup>E</sup>	English Composition: Intro to Argument	x	x	х	x	4	WR 115 or Placement Test	
	DRF 111	CAD I (See Note 2)	x						
	CH 222	General Chemistry II		x			5	CH 221	
2	ENGR 112 <sup>E</sup>	Engineering Orientation II		x			3	ENGR 111	
Term	MTH 252 <sup>E</sup>	Calculus II		x	x		4	MTH 251	
F	HPE 295	Wellness & Health	x	x	x	x	3		
	Perspectives	General Ed Req - See Advisor	x	x	x	x	3		
	Perspectives <sup>5</sup>	Biological Science With Lab			х		4		
	ENGR 245	Engineering Graphics			х		3		
m 3									
Term	MTH 253 <sup>E</sup>	Calculus III			х		4		
	MTH 261 <sup>E</sup>	Linear Algebra			x		2	MTH 111 Algebra	
	SP 111 <sup>E</sup>	Public Speaking	x	x	x		4	WR 095	
mer									
Summer									
	ENGR 201	Electrical Fundamentals I	x				4	MTH 251 Co-requisite	
4	ENGR 211 <sup>E</sup>	Statics	x				4	MTH 112	
Term 4	MTH 254 <sup>E</sup>	Vector Calculus I	x				4	MTH 252	
Ĕ	PH 211 <sup>E</sup>	Physics I w/Calculus	x				5	MTH 251 Co-requisite	
	ECON 201 or ECON 202	Economics	x	x	x		3	WR 121-123 & MTH 111	
5	ENGR 212	Dynamics		x			4	ENGR 211	
Term 5	MTH 256 <sup>E</sup>	Differential Equations		x			4	MTH 252	
•	PH 212 <sup>E</sup>	Physics II w/Calculus		x			5	PH 211	
	ENGR 213 <sup>E</sup>	Strength of Materials			x		4	ENGR 211	
9	MTH 265	Statistics for Engineers & Scientists			x		4	MTH 251	
erm (	PH 213 <sup>E</sup>	Physics III w/Calculus			x		5	PH 212	
Ľ		1		1	-		i		

OSU Course No.	Credits
CH 201 / CH 231 Lec & CH 261 Lab	3/4
MIME 101	2
MTH 251	4
WR 121	3
CH 202+CH 205 Lab / CH 232 Lec & CH 262 Lab	4
ENGR 112	3
MTH 252	4
HHS 231 & HHS 241	3
Perspectives Elective - See Advisor	3
Biological Science Elective	4
ENGR 248	3
UCC MTH 253 & MTH 261 = OSU MTH 306	4
See note above for MTH 306	
COMM 111	3
ENGR 201	3
ENGR 211	3
MTH 254	4
PH 211 & PH 221 Rec	4
Perspectives Elective - SP&I	3
ENGR 212	4
MTH 256	4
PH 212 & PH 222 Rec	4
	4
ENGR 213	4
ST 314 - See Note 3	4
PH 213 & PH 223 Rec	4
WP 327	2

ľ	WR 227	Technical Report Writing	x	x	x	x	4	WR 222	
то	TAL DEGREI	E CREDITS					102		17

WR 327	3

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

## **Program Advisor:**

NOTES:

1. <sup>E</sup>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. See Advisor.

Link to OSU/UCC General Ed Transfer for Bac Core Courses is <a href="http://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college">http://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college</a>

4. ENGR 390 Engineering Economics is not required for Pro-School. Can either be taken during Pro-School at OSU or online through OSU, after admission to OSU

5. Consider SOILS 205/206 as the Biological Elective

Last updated 11/20/2016

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

			ide is for planning purposes only.	Co	urse offerings subject to change.	
	Fall		Winter		Spring	Summer
	MIME 101	З	ENGR 248	3	ENGR 112 3	
	Intro to MIME	-	Engr Graphics - 3D Modeling	-	Intro Engr Computing	
	CH 201 Chem for Engineers	3	CH 202 Chem for Engineers	3	MTH 254 Vector Calculus	
an	MTH 251		MTH 252		COMM 111 or 114	
Freshman	Differential Calculus	4	Integral Calculus	4	Communication 3	
Free	WR 121	3	HHS 231 + PAC	3	PH 211 4	
	English Comp	Ŭ	Lifetime Fitness & PAC	Ŭ	Physics w/Calculus I	
	Perspective (Western Culture)	3	Perspective (Cultural Diversity)	3	Difference, Power & 3 Discrimination	
	Total	16	Total	16	Total 17	Total 0
	ENGR 211		ENGR 213		ENCP 212	
	Statics	3	Strength of Materials	3	Dynamics 3	
	IE 285	0	IE 212	4	ST 314	
	Intro to IE and MfgE	3	Computational Mthds for IE	4	Statistics for Engineers 3	
	MTH 256	4	MTH 306		WR 327	
Sophomore	Applied Differential		Matrix & Power Series	4	Technical Writing 3	
nou	Equations PH 212		PH 213		ME 250	ECDN ZOI
lqoõ	Physics w/Calculus II	4	Physics w/Calculus III	4	Intro to Mfg Processes 1	or
0,					Perspective	ELON 207
					(Social Proc. & Institutions) 3	2
					ENGR 390	
	<b>-</b>				Engineering Economy	<b>T</b>
	Total	14	Total	15	Total 16	Total 0
	MATS 321	4	IE 356 Experimental Design for	4		
	Intro to Material Science	4	Industrial Processes	4		
	IE 355		IE 366			
	Statistical Quality Control	4	Work Systems Engineering	4		
Ŀ	IE 367		IE 368			
Junior	Production Planning & Control	4	Facility Design & Operations	4	MECOP Inte	ernship
7			Management			•
	<u>BA 211</u> Financial Accounting	<u>4</u>	MFGE 336 Production Engineering	<u>4</u>		
	ENGR 407		<u>r roddetion Engineening</u>			
	MECOP Seminar	1				
	Total	17	Total	16		
	<u>IE 412</u>		ENGR 201	1		
	Information Systems	<u>4</u>	Electrical Fundamentals I	3		
	Engineering			_		
	<u>IE 425</u>	<u>4</u>	IE 415 Similation & Decision Support	4		
o.	Industrial Systems Optimization	<u> </u>	Systems	-		
Senior	<u>IE 475</u>		<u>IE 471</u>		MECOP Inte	ernsnip
0,	Advanced Manufacturing	<u>3</u>	Project Management in	<u>3</u>		-
	Costing Techniques		Engineering			
	<u>BA 230</u> Business Law	<u>4</u>	Perspective	3		
	Total		(Literature & Arts) Total	13		
$\vdash$	IE 497	10	IE 498	13		
	Senior Design	4	Senior Design	4	Bold Courses in gray cells are us	sed in the pre-core GPA
			<u>IE 470</u>		calculation and must be comple	
	BA 390 Markating	<u>4</u>	Management Systems	<u>4</u>	courses.	, c
	Marketing		Engineering			
o	Perspective		Synthesis	3	Italic Courses in blue cells must	t be completed prior to
Senior	(Biology + Lab)		4 (Contemporary Global Issues)		FIRST MECOP in	
5,				_		
	FIN 342	,	Synthesis	_	Underlinded Courses in orange cell	
	Advanced Financial Management		(Science Technology & Society)	3	to SECOND MECOF	rinternship
	manayement				Double Underlined Courses in yellow	
	Total	16	Total	14	for the Business Engine	
				-		

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

Fall   MIME 101 3   Intro to MIME 3   CH 201 3   Chem for Engineers 3   Chem for Engineers 4   Differential Calculus 4   WR 121 3   English Comp 3	Winter ENGR 248 aphics - 3D Modeling 3 CH 202 3 m for Engineers 3 MTH 252 4 egral Calculus 4	Intro Engr Computing MTH 254 Vector Calculus COMM 111 or 114	Summer 3 4
Intro to MIME 3 Engr Gra   CH 201 3 Cher   Chem for Engineers 3 Cher   MTH 251 4 Inte   Differential Calculus 4 Inte   WR 121 3 HH   English Comp 3 Lifetim	Aphics - 3D Modeling 3 CH 202 3 m for Engineers 3 MTH 252 4	Intro Engr Computing MTH 254 Vector Calculus COMM 111 or 114	
Intro to MIME Engr Gra   CH 201 3   Chem for Engineers 3   MTH 251 4   Differential Calculus 4   WR 121 3   English Comp 3	CH 202 3 m for Engineers 3 MTH 252 4	Intro Engr Computing MTH 254 Vector Calculus COMM 111 or 114	
Chem for Engineers <sup>3</sup> Cher MTH 251 4 Differential Calculus 4 WR 121 3 English Comp 3	m for Engineers 3 MTH 252	Vector Calculus	4
Chem for Engineers Chem   MTH 251 4   Differential Calculus 4   WR 121 3   English Comp 3	MTH 252	COMM 111 or 114	+
English Comp Lifetim	- 4	COMM 111 or 114	
English Comp Lifetim	gral Calculus		3
English Comp Lifetim		Communication	•
English Comp Lifetim	IS 231 + PAC 3	PH 211	4
	ne Fitness & PAC	Physics w/Calculus I	
	Perspective 3	Difference, Power and	3
(Western Culture) (Cul Total 16 Total	Itural Diversity)	Discrimination Total	17 Total (
	ENGR 213	ENGR 212	17 TOTAL (
	gth of Materials 3	Dynamics	3
IE 285	IE 212	ST 314	-
	ational Mthds for IE 4	Statistics for Engineers	3
			_
۳ MTH 256 4	MTH 306 4	WR 327	3
┣ Applied Differential Equations <sup>→</sup> Matrix	C & Power Series	Technical Writing	5
Applied Differential Equations 4 Matrix PH 212 4 Physics w/Calculus II 4 Physic	PH 213	ME 250	-
Physics w/Calculus II 4 Physic	cs w/Calculus III 4	Intro to Mfg Processes	1
		Perspective	
		(Social Proc. & Institutions)	3
		ENGR 390	
		Engineering Economy	3
Total 14 Total	15	Total	16 Total (
MATS 321	IE 356	ENGR 201	
Intro to Material Science 4 Experin	mental Design for 4	Electrical Fundamentals I	3
Indus	strial Processes		
IE 355	IE 366	Perspective	3
	stems Engineering	(Literature & Arts)	0
IE 367	IE 368	<u>BA 230</u>	
Production Planning & Control	Design & Operations 4	Business Law	<u>4</u>
- IV	Management		
	MFGE 336 4	Perspective	4
<u>Einancial Accounting</u> <sup>4</sup> Production Total 16 Total	ction Engineering	(Biology + Lab) Total	14 Total (
10 TOLAI 16 TOLAI	10	I Olai	14 IOIAI (
IE 497 4	IE 498 4	<u>BA 390</u>	4
Senior Design <sup>4</sup> Se	enior Design 4	Marketing	<u>4</u>
Seriiu Design Sc			
IE 412	IE 415 & Decision Support 4	FIN 342 Advanced Einancial	4
IE 412 Information Systems 4 Similation	n & Decision Support 4	Advanced Financial	<u>4</u>
IE 412 Information Systems 4 Similation	n & Decision Support 4 Systems	Advanced Financial Management	<u>4</u>
IE 412 Information Systems 4 Similation Engineering IE 425 4 Project	n & Decision Support 4 Systems I <u>E 471</u>	Advanced Financial Management Synthesis	
IE 412 Information Systems 4 Similation Engineering IE 425 Industrial Systems Optimization 4 Project	n & Decision Support 4 Systems <u>IE 471</u> <u>ct Management in 3</u>	Advanced Financial Management Synthesis	<u>4</u> 3
IE 412 Information Systems 4 Similation Engineering IE 425 Industrial Systems Optimization 4 Project	n & Decision Support 4 Systems <u>IE 471</u> <u>ct Management in 3</u> Engineering	Advanced Financial Management Synthesis (Contemporary Global Issues)	
IE 412 Information Systems 4 Engineering IE 425 Industrial Systems Optimization 4 <u>Project</u>	a & Decision Support 4 Systems <u>IE 471</u> <u>ct Management in 3</u> Engineering <u>IE 470</u>	Advanced Financial Management Synthesis (Contemporary Global Issues) Synthesis	3
IE 412 Information Systems 4 Similation Engineering IE 425 Industrial Systems Optimization 4 <u>Project</u> <u>IE 475</u> <u>Advanced Manufacturing 3 Manage</u>	n & Decision Support 4 Systems <u>IE 471</u> <u>ct Management in 3</u> Engineering	Advanced Financial <u>Management</u> Synthesis (Contemporary Global Issues) Synthesis	

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