

MANUFACTURING ENGINEERING TRANSFER, AS OSU ADVISING GUIDE

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

REVISED 11/20/16

	UCC Course No. and Course Name	Term Offered				Credits	Prerequisites/Notes		OSU Course No.	Credits
		F	W	S	S					
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	MIME 101	2
	MTH 251 ^E	Calculus I	x	x			5	MTH 112	MTH 251	4
	WR 121 ^E	English Composition: Intro to Argument	x	x	x	x	4	WR 115 or Placement Test	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		Perspectives Elective - See Advisor	3
Term 3	Perspectives ⁵	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 253 & 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	COMM 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
Term 5	ECON 201 or ECON 202	Economics	x	x	x		3	WR 121-123 & MTH 111	Perspectives Elective - SP&I	3
	ENGR 212	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
Term 6	ENGR 213 ^E	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	4	WR 122	WR 327	3
TOTAL DEGREE CREDITS							102			

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

Program Advisor:

NOTES:

1. ^ERequired 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 Humanities/Social Science that transfer to OSU as General Ed requirements. See Advisor. Link to OSU/UCC General Ed Transfer for Bac Core Courses is <http://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college>
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

Manufacturing Engineering (MfgE) MECOP Program Guide

This guide is for planning purposes only. Course offerings subject to change.

	Fall	Winter	Spring	Summer
Freshman	MIME 101 Intro to MIME	ENGR 248 Engr Graphics - 3D Modeling	ENGR 112 Intro Engr Computing	
	CH 201 Chem for Engineers	CH 202 Chem for Engineers	MTH 254 Vector Calculus	
	MTH 251 Differential Calculus	MTH 252 Integral Calculus	COMM 111 or 114 Communication	
	WR 121 English Comp	HHS 231 + PAC Lifetime Fitness & PAC	PH 211 Physics w/Calculus I	
	Perspective (Western Culture)	Perspective (Cultural Diversity)	Difference, Power & Discrimination	
	Total	16	16	17
Sophomore	ENGR 211 Statics	ENGR 213 Strength of Materials	ENGR 212 Dynamics	
	IE 285 Intro to IE and MfgE	IE 212 Computational Mthds for IE	IE 299/ST 314 Statistics for Engineers	
	MTH 256 Applied Differential Equations	MTH 306 Matrix & Power Series	WR 327 Technical Writing	
	PH 212 Physics w/Calculus II	PH 213 Physics w/Calculus III	ME 250 Intro to Mfg Processes	
			Perspective (Social Proc. & Institutions)	
Total	14	15	16	0
Junior	MATS 321 Intro to Material Science	IE 356 Experimental Design for Industrial Processes	MECOP Internship	
	IE 355 Statistical Quality Control	IE 366 Work Systems Engineering		
	IE 367 Production Planning & Control	IE 368 Facility Design & Operations Management		
	ME 382 Introduction to Design	MFGE 336 Production Engineering		
	ENGR 407 MECOP Seminar			
Total	17	16		
Senior	IE 412 Information Systems Engineering	ENGR 201 Electrical Fundamentals I	MECOP Internship	
	MFGE 436 Lean Manufacturing Systems Engineering	IE 415 Simulation & Decision Support Systems		
	ME 311 Intro to Thermo-Fluids	MFGE 337 Materials & Manufacturing Processes		
	MfgE Systems Elective	Perspective (Literature & Arts)		
Total	15	13		
Senior	IE 497 Senior Design	IE 498 Senior Design	Bold Courses in gray cells are used in the pre-core GPA calculation and must be completed prior to taking Pro courses.	
	ME 413 Computer-Aided Design & Manufacturing	MfgE Process Elective		
	Perspective (Biology + Lab)	Synthesis (Contemporary Global Issues)	<i>Italic Courses</i> in blue cells must be completed prior to FIRST MECOP internship	
		Synthesis (Science Tech & Society)	<u>Underlined Courses</u> in orange cells must be completed prior to SECOND MECOP Internship	
Total	12	14		

Manufacturing Engineering (MfgE) 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 & Discrimination	3	
	Total	16	Total	16	Total	17	Total
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	IE 299/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	MfgE Process Elective	4	
	ME 382 Introduction to Design	4	MFGE 336 Production Engineering	4			
	Total	16	Total	16	Total	10	Total
Senior	IE 497 Senior Design	4	IE 498 Senior Design	4	MfgE Systems Elective	3	
	IE 412 Information Systems Engineering	4	IE 415 Simulation & Decision Support Systems	4	Perspective (Biology + Lab)	4	
	MFGE 436 Lean Manufacturing Systems Engineering	4	MFGE 337 Materials & Manufacturing Processes	3	Synthesis (Contemporary Global Issues)	3	
	ME 413 Computer-Aided Design & Manufacturing	4	ME 311 Intro to Thermo-Fluids	4	Synthesis (Science Tech & Society)	3	
	Total	16	Total	15	Total	13	Total

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