

Name _____

WIN No. _____

WESTERN MICHIGAN UNIVERSITY

Department of Industrial and Manufacturing Engineering

INDUSTRIAL AND ENTREPRENEURIAL ENGINEERING (IEE) - Bachelor of Science in Engineering Degree

2011-2012 Catalog

Grade/ Trans.	Semester/ Course				Grade/ Trans.	Semester/ Course				
<u>SEMESTER I - FALL</u>					<u>SEMESTER V - FALL</u>					
_____	_____	MATH 1220	<i>Calculus I (or Math 1700) (Prof. 4)</i>	4	_____	_____	MATH 3740	Differential Equations and Linear Algebra	4	
_____	_____	CHEM 1100	<i>General Chemistry I (AREA VI)</i>	3	_____	_____	IME 3010	Entrepreneurial Engineering II	3	
_____	_____	CHEM 1110	<i>General Chemistry I Lab (AREA VI)</i>	1	_____	_____	IME 3100	Engineering Economy	3	
_____	_____	IME 1020	<i>Technical Communication (Prof. 1)</i>	3	_____	_____	IME 3160	Report Preparation (Prof. 2)	3	
_____	_____	IME 1420	Engineering Graphics	<u>3</u>	_____	_____	_____	Minor Elective	<u>3</u>	
				14					16	
<u>SEMESTER II - SPRING</u>					<u>SEMESTER VI - SPRING</u>					
_____	_____	MATH 1230	<i>Calculus II (or Math 1710)</i>	4	_____	_____	IME 3110	Introduction to Operations Research	3	
_____	_____	PHYS 2050	<i>University Physics I (AREA VI)</i>	4	_____	_____	IME 3300	Simulation Modeling and Analysis	3	
_____	_____	PHYS 2060	<i>University Physics I Lab (AREA VI)</i>	1	_____	_____	IME 3420	Ergonomics and Design	3	
_____	_____	AREA I*	<i>Fine Arts</i>	3	_____	_____	ME 2200	Processes and Materials in Manufacturing	4	
_____	_____	CS 1021	Intro. Engr. Comp. I: Spreadsheets	1	_____	_____	_____	Minor Elective	<u>3</u>	
_____	_____	CS 1023	Intro. Engr. Comp. III: Comp. Programming	1					16	
_____	_____	IME 2010	Entrepreneurial Engineering I	<u>3</u>	<u>SEMESTER VII - FALL</u>					
				17	_____	_____	IME 4010	Entrepreneurial Engineering III	3	
<u>SEMESTER III - FALL</u>					_____	_____	IME 4160	Operations Control in Industry	4	
_____	_____	MATH 2720	<i>Multivariate Calculus and Matrix Algebra</i>	4	_____	_____	IME 4190	IE Senior Design	1	
_____	_____	PHYS 2070	<i>University Physics II</i>	4	_____	_____	AREA III*	United States: Cultures and Issues	3	
_____	_____	PHYS 2080	<i>University Physics II Lab</i>	1	_____	_____	_____	Approved Technical Elective	3	
_____	_____	IME 2610	<i>Engineering Statistics</i>	3	_____	_____	_____	Minor Elective	<u>3</u>	
_____	_____	ME 2560	<i>Statics</i>	<u>3</u>					17	
				15	<u>SEMESTER VIII - SPRING</u>					
<u>SEMESTER IV - SPRING</u>					_____	_____	IME 4190	IE Senior Design	3	
_____	_____	IME 2050	<i>Work Design</i>	4	_____	_____	AREA IV*	Other Cultures and Civilizations	3	
_____	_____	AREA II*	<i>Humanities</i>	3	_____	_____	AREA VIII	Health and Well-Being	2	
_____	_____	ECON 2010	Principles of Microeconomics (AREA V)	3	_____	_____	_____	Minor Elective	3	
_____	_____	IME 2620	Probability and Quality for Engineers	3	_____	_____	_____	Approved Technical Elective	3	
_____	_____	_____	Minor Elective	<u>3</u>	_____	_____	_____	Approved Technical Elective	<u>3</u>	
				16					17	
									Total Credits	128

*At least two of these courses must be at the 3000-4000 level.

NOTES: A grade of "C" or better in gate courses (indicated in italicized type) is required for enrollment in upper division courses offered by the Department of Industrial and Manufacturing Engineering. See the IEE academic advisor for approved electives.

UNIVERSITY GRADUATION REQUIREMENTS INDUSTRIAL & ENTREPRENEURIAL ENGINEERING

Beginning FALL 2011

GENERAL EDUCATION REQUIREMENTS

Must include 2 courses at the 3000-4000 level
Maximum two courses any one department

Total: 34 Hours Minimum

Dept & Number	Grade Transfer	Credit Hours
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AREA I: Fine Arts _____
(3-4 credits) _____

AREA II: Humanities _____
(3-4 credits) _____

AREA III: US Culture _____
(3-4 credits) _____

AREA IV: Other Cultures _____
(3-4 credits) _____

AREA V: Social & Behavioral ECON 2010 3
(3-4 credits) _____

AREA VI: Natural Sciences CHEM 1100, 1110 4
With lab (4-5 credits) PHYS 2050, 2060 5

AREA VII: Natural Science & Technology Waived for BSE graduates
(3-4 credits) _____

AREA VIII: Health & Well _____
(2 credits) _____

Proficiencies (one course each)

Prof. 1: College Level Writing IME 1020 3

Prof. 3: College Level Math MATH 1180 or exempt if placed in Calculus I or above and completes IEE program

Prof. 4: Develop a Proficiency MATH 1220 or 1700 4

STUDENT NAME _____

WIN# _____

CATALOG YEAR _____

DEGREE BACHELOR OF SCIENCE IN ENGINEERING

CURRICULUM INDUSTRIAL & ENTREPRENEURIAL ENGINEERING (IEE)

MINOR _____

Intellectual Skills: Hours do not count towards graduation minimum.

Reading: Exempt _____ Course _____ Hours _____

Mathematics: Exempt _____ Course _____ Hours _____

Basic Writing: Exempt _____ Course _____ Hours _____

OTHER REQUIREMENTS

Baccalaureate Writing: IME 3160 (Prof. 2) Satisfied _____

60 hrs. from a 4-yr. Institution: Satisfied _____

30 hrs. from WMU required: Satisfied _____

10 of the last 30 hrs. from WMU: Satisfied _____

Minimum of 122 semester hours: Satisfied _____

2.0 overall grade point average: Satisfied _____

No more than 2 grades less than C presented: Satisfied _____

Total Hours Completed _____

Minus Repeats/Skills _____

Hours in Progress _____

Total Hours _____

Number Needed _____

ADDITIONAL REQUIREMENTS

1. Please see the IEE advisor for a current list of approved electives.
2. Admitted to the professional engineering curriculum.
3. Four-year catalog rule:
Catalog year _____; expires _____.
4. No more than two grades below C in courses presented for graduation.

Total Hours _____

SIGNATURES:

Student/Date _____ Advisor/Date _____ Planned Graduation Date _____

Chairman/Date _____ College/Date _____ This form is valid until June 2016.

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