Addendum D: Mechanical Engineering (BSME)

Satisfaction of the following McHenry courses is assumed upon entry into the Mechanical Engineering program at MSOE. Any course requirement that is not met must be satisfied at MSOE or with approved transfer credit.

McHenry Course Number	McHenry Course Name	Equivalent MSOE Course Number
Communication & General Education		
ENG 151 (ENG 152 also required for AES degree)	Composition 1	COM 1001
ANT 170 (suggested)	Introduction to Cultural Anthropology See appendix for more options	ANT 1001 Diversity CLO
ECO 251 (suggested)	Microeconomics See appendix for more options	BUS 2221 Curiosity CLO
Humanities/Fine Arts Elective	Many Options See appendix for options	Many Options Choice CLO
Mathematics & Natural Science		
MAT 175	Calculus with Analytic Geometry I	MTH 1110
MAT 245	Calculus with Analytic Geometry II	MTH 1120
MAT 255	Calculus with Analytic Geometry III	MTH 2130
MAT 260	Differential Equations	MTH 2140
CHM 165	General Chemistry I	CHM 1010
PHY 291	Principles of Physics I	PHY 1110
PHY 292	Principles of Physics II	PHY 1120
Mechanical Engineering Courses		
EGR 151	Engineering Graphics	MEC 1602
EGR 251	Statics	MEC 2010
EGR 252	Dynamics	MEC 2020

ADDITIONAL BSME TRANSFER COURSES AVAILABLE THROUGH McHENRY

McHenry Course Number	McHenry Course Name	Equivalent MSOE Course Number
Communication & General Education		
ENG 105	Technical Communication	COM 2001
SPE 151	Introduction to Speech	COM 3001

Addendum D: Mechanical Engineering (BSME)

Courses remaining in the Mechanical Engineering program at MSOE.

*Courses marked with an asterisk are available at McHenry College.

MSOE Course Number	MSOE Course Name	Semester Credits
Communication & General Education		
*COM 2001	Writing for the STEM Disciplines	3
*COM 3001	Professional Presentations	3
PHL 3101	Ethics for Professional Managers & Engineers	3
Mathematics & Natural Science		
MTH 2480	Probability & Statistics	3
BSME Program		
IND 3510	Fund. Of Enterprise Operations	3
ELE 2051	Circuit Theory for Mechanical Engineering	3
MEC 1900	Introduction to Mechanical Engineering	1
MEC 1910	Computer Applications in Engineering	3
MEC 2030	Mechanics of Materials	4
MEC 2110	Thermodynamics	3
MEC 3120	Fluid Mechanics	3
MEC 3040 OR MEC 3140	Computer Aided Design OR Thermodynamics II	3
MEC 3210	Material Science	3
MEC 3310	Instrumentation & Measurements	3
MEC 3130	Heat Transfer	3
MEC 3060	Design of Machine Components	3
MEC 3220	Materials & Manufacturing Processes	4
MEC 3320	Dynamic Systems	3
MEC 4060 OR MEC 4160	Finite Element Analysis OR Comp. Fluid Dynamics	3
MEC 4310	Automatic Control Systems	3
MEC 4810	Thermo-Fluid Systems Lab	3
MEC 4901	Capstone Design I	3
MEC 4902	Capstone Design II	3
MEC Elective	MEC Technical Elective	3
MEC Elective	MEC Technical Elective	3
MEC Elective	MEC Technical Elective	3

APPENDIX: GENERAL EDUCATION HUMANITIES & SOCIAL SCIENCE EQUIVALENCIES

MSOE requires courses that fulfill Common Learning Outcome (CLO) categories.
The following four CLO categories can be satisfied with McHenry courses:

- Exhibit Curiosity CLO
- Embrace Diversity CLO
- Demonstrate Ethical Understanding CLO
- Choice of CLO – Select any course listed from the table below

Note: Each course counts towards only one CLO and the same course cannot fulfill multiple CLO categories.

General Education Humanities & Social Science

CLO	McHenry Courses	Equivalent MSOE Courses
Exhibit Curiosity	ANT 170 Intro to Cultural Anthropology	ANT 1001 Cultural Anthropology
	ANT 151 Introduction to Anthropology	HUM 0106 Exhibit Curiosity
	ECO 251 Microeconomics	BUS 2221 Microeconomics
	ECO 252 Macroeconomics	BUS 2222 Macroeconomics
	ENG 275 Women's Literature	HUM 0106 Exhibit Curiosity
	GER 151 Elementary German I	GER 1001 Elementary German
	GER 152 Elementary German II	GER 100 Elementary German
	GER 251 Intermediate German I	GER 2001 Intermediate German
	GER 252 Intermediate German II	GER 2001 Intermediate German
	HIS 170 United States History I	HST 1013 United States History I
	HIS 172 United States History II	HST 1014 United States History II
	MUS 154 Music Appreciation	HST 2053 Music History
	PHI 151 Introduction to Philosophy	PHL 3201 Introduction to Philosophy
	PHI 155 Introduction to Logic	PHL 3202 Introduction to Logic
	PHI 160 Eastern Philosophy	PHL 3104 Eastern Philosophy
	PLT 151 United States Government	PSC 2011 American Government
	PSY 151 Introduction to Psychology	PSY 1001 Foundations of Psychology
	SOC 151 Introduction to Sociology	SOC 1001 Foundations of Sociology
	SPA 151 Elementary Spanish I	SPN 1001 Elementary Spanish
	SPA 152 Elementary Spanish II	SPN 1001 Elementary Spanish
	SPA 251 Intermediate Spanish I	SPN 2001 Intermediate Spanish
	SPA 252 Intermediate Spanish II	SPN 2001 Intermediate Spanish
	THE 151 Intro to Theater	FNA 2002 Drama and the Theater
Embrace Diversity	ANT 170 Intro to Cultural Anthropology	ANT 1001 Cultural Anthropology
	GER 151 Elementary German I	GER 1001 Elementary German
	GER 152 Elementary German II	GER 100 Elementary German
	GER 251 Intermediate German I	GER 2001 Intermediate German
	GER 252 Intermediate German II	GER 2001 Intermediate German
	PHI 165 Religions of the World	HUM 0104 Embrace Diversity
	SOC 151 Introduction to Sociology	SOC 1001 Foundations of Sociology
	SPA 151 Elementary Spanish I	SPN 1001 Elementary Spanish
	SPA 152 Elementary Spanish II	SPN 1001 Elementary Spanish
	SPA 251 Intermediate Spanish I	SPN 2001 Intermediate Spanish
	SPA 252 Intermediate Spanish II	SPN 2001 Intermediate Spanish
Other	PHI 161 Introduction to Ethics	HUM 0103 Demonstrate Ethical