

**Articulation Guide**  
**Schoolcraft College – Associate in Engineering**  
**University of Detroit Mercy – Bachelor of Electrical Engineering**



Schoolcraft College		University of Detroit Mercy	
Degree Requirements	CH	Equivalency and Degree Requirements	CH
English Writing Requirements ENG 101 and ENG 102 English Composition	6	ENL 130 College Writing * ENL 131 Academic Writing	3
Humanities (minimum of 6 credit hours required): COMA 103 Fundamentals of Speech Additional Humanities requirement (select one): ART 115, 116, 201, 216; HIST 134- 230; ENG 170, 200, 243-275; MUSIC 105, 109, 149, 164, 165; THEA 101, 231, 232; HUM 150-232	3 3	CST 101 Fundamentals of Speech Objective 5	3 3
Mathematics / Sciences (34 credit hours required): CHEM 111 General Chemistry I MATH 150 Calculus with Analytic Geom 1 MATH 151 Calculus with Analytic Geom 2 MATH 240 Calculus with Analytic Geom 3 MATH 252 Differential Equations PHYS 211 Physics for Scientists and Engr 1 PHYS 212 Physics for Scientists and Engr 2	4 5 5 5 5 5 5	CHM 107/110 General Chemistry I/ Lab MTH 141 Analytical Geom and Calculus I MTH 142 Analytical Geom and Calculus II MTH 241 Analytical Geom and Calculus III MTH 372 Differential Eq w/ Linear Alg PHY 160/161 General Physics I/ Lab PHY 162/163 General Physics II/ Lab	4 4 4 4 4 4 4
Social Sciences (minimum of 7 credits required) ECON 201 Principles of Macroeconomics Additional Social Science requirement (select one): ANTH 112-201, 214; GEOG 133, 241; POLS 207; SOC 210	4 3	Objective 5 (transferable for Assoc in Engr students) Objective 5 - D	3 3
Additional courses to be used as electives or required courses in Assoc in Engineering degree: ENGR 100 Intro to Engineering & Technology and CAD 103 Engineering Graphics ENGR 201 Statics ENGR 202 Mechanics of Materials ENGR 203 Dynamics CAD 211 or CAD 221 CIS 211 Introduction to C++	3 3 3 3 4 4 2	E 100 Ethics and Politics of Engineering and E 105 Engineering Graphics and Design E 312 Statics E 326 Mechanics of Materials E 313 Dynamics E 107 Intermediate Computer Aided Drafting/Design E 204 Introduction to Engineering Computing	2 2 3 3 3 2 3
Add'l transferable courses (select up to 4 classes): CHEM 117 General Chem & Qual Analysis PHIL 243 An Introduction to Philosophy ANTH 211 Myth, Magic and World Religions PHIL 247 or PHIL 277 ENG 116 Technical Writing	5 3 3 3-4 3	May take up to 12 credits: CHM 108 General Chemistry II PHL 100 Intro to Philosophy (Obj. 4) Religious Studies Requirement (Obj. 4) Objective 4 ENL 303 Technical Writing	3 3 3 3 3
Maximum Credits at Schoolcraft College	90	Credits that transfer to UDM	76

\* Note: 3 credits for ENL 130 (prerequisite for ENL 131) are included here, but are not officially part of the BEE degree requirements

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**Additional courses to be completed at UDM for the BEE (Electronics, Control And Communication Systems) Degree:**

<u>Course</u>	<u>credits</u>
E 315 Thermodynamics I.....	3
E 322 Control Systems.....	3
EE 250/ 251 Fundamentals of Electrical & Computer Engineering I and Lab .....	4
EE 252/ 253 Fundamentals of Electrical & Computer Engineering II and Lab .....	4
EE 264/ 265 Digital Logic Circuits I & Lab .....	4
EE 388 Signals and Systems .....	3
EE 354/ 355 Advanced Electronic Systems and Lab .....	4
EE 386/ 387 Introduction to Microprocessors and Lab .....	4
EE 366 Electromagnetics I .....	3
PHY 367/ 368 Modern Physics and Solid State .....	4
EE 372 Electromechanical Energy Conversion .....	3
EE 374 Communication Theory I .....	3
EE 401 Electrical Design I .....	3
EE 403 Electrical Design II .....	3
MTH 427 Applied Probability and Statistics .....	3
MTH 451 Techniques of Advanced Calculus .....	3
One General Elective .....	3
Three Technical Electives .....	9
<b>Subtotal:</b> .....	<b>66</b>
 Co-op Associated Credits:	
E 301, E 302, E 303 Professional World of Work .....	3
CEC 300 Cooperative Education Preparation.....	1
CTA 301, CTA 302, CTA 303 Cooperative Education Assignments .....	6
<b>Subtotal:</b> .....	<b>10</b>
 <b>Minimum credits at UDM: 66 + 10 co-op associated credits</b>	