



## ARTICULATION GUIDE

### Macomb Community College- Automated Systems Technology- Mechatronics LTU – Bachelor of Science in Engineering Technology Based on MCC 2009-10 Catalog and LTU 2008-2009 Catalog

#### Macomb Community College: Associates Degree Requirements (64 cr. hrs.)

1st Semester	Hrs	2nd Semester	Hrs
<b>MECT 1211</b> <i>Mechatronics AC/DC</i>	1	<b>MECT 2110</b> <i>Mechatronics Programming 1</i>	3
<b>MECT 1212</b> <i>Mechatronics Controls</i>	1	<b>MECT 2112</b> <i>Mechatronics Programming 2</i>	3
<b>MECT 1213</b> <i>Mechatronics Sensors</i>	1	<b>CORE 1000</b> <i>Industrial Technology Fundamentals</i>	2
<b>MECT 1214</b> <i>Mechatronics Pneumatics</i>	1	<b>ELEC 1161</b> <i>Electronic Technology 1</i>	3
<b>MECT 1215</b> <i>Mechatronics Robots</i>	1	<b>ELEC 1171</b> <i>Electronic Technology 2</i>	3
<b>MECT 1216</b> <i>Mechatronics Mechanics</i>	1	<b>ENGL 1180 or ENGL 1210</b>	4
<b>TMTH 1150</b> <i>RCL Analysis</i>	4	<b>Group II:</b> <i>Astronomy, Biology, Chemistry, Environmental Science, Geology, Mathematics, Natural Science, Physical Science, Physics</i>	4
<b>CORE 1060</b> <i>Industrial Computer Technology</i>	4		
3 <sup>rd</sup> Semester	Hrs	4 <sup>th</sup> Semester	Hrs
<b>MECT 2210</b> <i>Mechatronics Systems Operations 1</i>	3	<b>ELEC 1181</b> <i>Semiconductor Theory &amp; Devices</i>	3
<b>MECT 2212</b> <i>Mechatronics Systems Operations 2</i>	3	<b>ELEC 1191</b> <i>Intro to Op-Amps and Linear Integrated Circuits</i>	3
<b>ELEC 1211</b> <i>Digital Electronics Basics</i>	3	<b>ELEC 1221</b> <i>Microcontrollers with Robotic Applications</i>	3
<b>PHYS 1180</b> <i>College Physics 1</i>	4	<b>Group IV:</b> <i>ARTT, Creative Writing, Foreign Language, Humanities, Literature, Music, Philosophy</i>	3-4
<b>ENGL 1190 or 1220</b>	4	<i>PHED Course</i>	2-3
<b>Group III:</b> <i>Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology, Social Science</i>	3-4		
Additional Coursework		Transfer to LTU as:	
<b>MATH 1410</b> <i>College Algebra AND</i>	3	<b>MCS 1113</b> <i>Technical Math 1</i>	3
<b>MATH 1430</b> <i>College Trigonometry OR</i>	3	<b>MCS 1123</b> <i>Technical Math 2</i>	3
<b>MATH 1460</b> <i>Precalculus</i>	3	<b>MCS 2313</b> <i>Technical Calculus</i>	3
<b>MATH 1370 or 1760</b>	4	<b>MCS 2023</b> <i>Statistical Methods</i>	3
<b>MATH 1340</b> <i>Statistics</i>	4	<b>PHY 1083 + 1101</b> <i>Technical Physics 2 + Lab</i>	4
<b>PHYS 1190</b> <i>College Physics 2</i>	4	<b>CHM 3144</b> <i>Fundamentals of Chemistry</i>	4
<b>CHEM 1050</b> <i>Introduction to General Chemistry</i>	4	<b>SSC 2303</b> <i>Basic Economics</i>	3
<b>ECON 1160</b> <i>Principles of Economics 1</i>	3	<b>LLT 1223</b> <i>World Masterpieces 1+2</i>	6
<b>One Humanities Courses**</b>	3	<b>SSC 2423</b> <i>Development of the American Exp</i>	3
<b>One Social Science Course**</b>	3	<b>MGT 2203</b> <i>Management &amp; Supervision</i>	3
<b>MGMT 1010</b> <i>Principles of Management</i>	3		
**Please refer to MACRAO guidelines or transfer guide sheet to find transferable courses for Humanities and Social Science courses. The MACRAO Math requirement is met by taking a course above.			

#### Appendix A



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### Macomb Community College- Automated Systems Technology- Mechatronics LTU – Bachelor of Science of Engineering Technology Based on MCC 2009-2010 Catalog and LTU 2008-09 Catalog

Completion of the BSET Degree at LTU	Cr Hrs
<b>Technology Core</b>	<b>23</b>
HRM 4013 <i>Employee Management Relations</i>	3
OPM 3113 <i>Operations Management</i>	3
TIE 2063 <i>Manufacturing Processes</i>	3
TIE 2163 <i>Engineering Economics</i>	3
TIE 4115 <i>Senior Project</i>	5
TME 4103 <i>Engineering Materials 2</i>	3
TME 2053 <i>Dynamics</i>	3
or	
TME 3113 <i>Operations Management</i>	3
<b>Remaining Arts &amp; Sciences Courses</b>	<b>9</b>
MCS 1023 <i>Technical Computer Applications</i>	3
MCS 2323 <i>Applied Differential Equations</i>	3
LLT/SSC/PSY <i>JR/SR Elective</i>	3
<b>General Elective Credit</b>	<b>3</b>
Notes: COM 3000: <i>Writing Proficiency Exam</i> Must be taken during the first semester at LTU.  COM 1001: <i>University Seminar</i> Articulation agreement participants are excused from this requirement.	
<b>Credits Taken at Macomb =</b>	<b>101-103</b>
<b>Credits Transferred to LTU =</b>	<b>90</b>
<b>Minimum Credits at LTU =</b>	<b>35</b>
<b>Minimum Credits to Graduate =</b>	<b>125</b>

## Appendix A