



Associate in Applied Science in Advanced Manufacturing Concentration Area: Mechatronics					
Semester	Course Prefix	Course Description	AAS	Long Cert	Complete
1 <sup>st</sup> Semester	ADM 291	MSSC Safety	3	3	
	INT 119	Principles of Mechanical Measurement & Technical Drawing	3	3	
	INT 117	Principles of Industrial Mechanics	3	3	
	INT 129	Industrial Safety and Maintenance Techniques	3	3	
	MTH 100	Intermediate College Algebra or Higher	3	3	
2 <sup>nd</sup> Semester	ADM 292	MSSC Quality Practices and Measurement	3	3	
	INT 101	DC Fundamentals	3	3	
	INT 103	AC Fundamentals	3	3	
	INT 158	Industrial Wiring	3	3	
	ENG 101	English Composition I	3	3	
3 <sup>rd</sup> Semester	ADM 293	MSSC Manufacturing Processes and Production	3	3	
	INT113	Industrial Motor Controls I	3	3	
	INT 206	Industrial Motors I	3	3	
	INT 153	Precision Machining Fundamentals I	3	3	
	*	Natural Science or Math Elective	3		
4 <sup>th</sup> Semester	ADM 294	MSSC Maintenance Awareness	3	3	
	INT 215	Troubleshooting Techniques	3	3	
	INT 118	Fundamentals of Hydraulics and Pneumatics	3	3	
	INT 184	Introduction to programmable Logic Controllers	3	3	
	*	Humanities and Fine Arts Elective	3		
5 <sup>th</sup> Semester	INT 284	Advanced Programmable Logic Controllers	3		
	INT 132	Preventative and Predictive Maintenance	3		
	INT 139	Introduction to Robot Operation and Programming	3		
	*	Social and Behavioral Sciences Elective	3		
<b>Total Hours:</b>			<b>72</b>	<b>54</b>	

\*Denotes a required academic elective to be chosen by the student.



SOUTHERN UNION  
STATE COMMUNITY COLLEGE  
Technical Division

## Short Certificates Available in this Program of Study

Industrial Safety Short Certificate	
Course Prefix	Course Description
INT 119	Principles of Mechanical Measurement & Technical Drawing
INT 117	Principles of Industrial Mechanics
INT 129	Industrial Safety and Maintenance Techniques
Total Hours:	9

Basic Electricity Short Certificate	
Course Prefix	Course Description
INT 101	DC Fundamentals
INT 103	AC Fundamentals
INT 158	Industrial Wiring
Total Hours:	9

Industrial Motor Controls Short Certificate	
Course Prefix	Course Description
INT 113	Industrial Motor Controls I
INT 118	Fundamentals of Hydraulics and Pneumatics
INT 184	Introduction to programmable Logic Controllers
Total Hours:	9

Industrial Systems Short Certificate	
Course Prefix	Course Description
INT 284	Advanced Programmable Logic Controllers
INT 132	Preventative and Predictive Maintenance
INT 139	Introduction to Robot Operation and Programming
Total Hours:	9

Manufacturing Production Technician Short Certificate	
Course Prefix	Course Description
ADM 291	MSSC Safety
ADM 292	MSSC Quality Practices and Measurement
ADM 293	MSSC Manufacturing Processes and Production
ADM 294	MSSC Maintenance Awareness
Total Hours:	12