

PROGRAM ARTICULATION DEGREE PLAN					
Harper College 2021-2022		Southern Illinois University Carbondale			
AAS Manufacturing Technology - Mechatronics Automation - 60 hrs		BS Industrial Management and Applied Engineering (IMAE) - 120 hrs			
		University Core Curriculum (UCC) CAPSTONE OPTION - 30 hrs			
		Hrs	Hrs		
		UNIV 101	Foundations of Inquiry	NA	
MTH 103	College Algebra	3	MATH 108 (required for BS)	College Algebra	T
SPE 101	Fund of Speech Communication	3	CMST 101	Intro:Oral Communication	T
ENG 101	Composition	3	ENGL 101	English Composition I	T
			ENGL 102	English Composition II	NA
			SOCIAL SCIENCE		3
			SOCIAL SCIENCE		3
	IAI Humanities*	3	HUMANITIES	(See SIUC Transfer Equivalency Guide)	T
			HUMANITIES		NA
			PHYS 203A & 253A	College Physics/Lab	4
			LIFE SCIENCE	Students take 2 physics courses	NA
	IAI Fine Arts*	3	FINE ARTS		T
			HUMAN HEALTH		NA
			MULTICULTURAL		3
*One course must satisfy a World Cultures and Diversity requirement					
		15			13
Program Requirements		Program Requirements			
ELT 110	Introductory Electronics	4	An AAS in Manufacturing Technology - Mechatronics Automation satisfies the 22 hours of technical electives required for the BS degree in Industrial Management and Applied Engineering.		
ELT 120	Intro Industrial Electronics Maintenance	2			
ELT 135	Optics and Sensors	2			
ELT 140	Intro to Programmable Logic Controllers	2			
ELT 143	Commercial Wiring	2			
ELT 144	AC and DC Motors	2			
ELT 145	Variable Frequency Drives	2			
ELT 215	Industrial Control Systems	4			
ELT 240	Advanced Programmable Logic Controllers	4			
MFT 102	Introduction to Manufacturing and Safety	4			
MFT 104	Quality and Measurement	2			
MFT 108	Manufacturing Processes	3			
MFT 109	Introduction to Manufacturing Maintenance	2			
MFT 119	Manufacturing Internship	2			
Technical Electives		8			
		45	PHYS 203/253B	College Physics/Lab	4
			IMAE 110	Geometric Dimensioning & Tolerancing	3
			IMAE 208	Fundamentals of Mfg Processes	3
			IMAE 305	Industrial Safety	3
			IMAE 307 -or- MATH 140	Applied Calc for Tech -or- Short Course in Calc	3-4
			IMAE 340 -or- PSYC 323*	Intro to Supervision -or- Organizational Psychology	3
			IMAE 375	Production and Inventory Management	3
			IMAE 390	Cost Estimating	3
			IMAE 392	Facilities Plan/Workplace Dsgn	3
			IMAE 442	Fundamentals of Leadership	3
			IMAE 445	Computer-Aided Manufacturing	3
			IMAE 450	Project Management	3
			IMAE 465	Lean Manufacturing	3
			IMAE 470A	Six Sigma Green Belt I	3
			IMAE 470B	Six Sigma Green Belt II	3
			IMAE 476	Supply Chain Management	3
			IMAE Electives	(Must be at 300/400 level)	3
					52-53
Total semester hrs completed w/ AAS degree:		60	Total semester hrs completed w/ BS degree:		65-66
			Total hours to BS Degree:		125-126
			*PSYC 323 is an option for on-campus students only & requires PSYC 102 as a prerequisite		
Degree plan created by SW 12/17/2021					