



EMPLOYABILITY PROFILE

Robotics Automation



Industry-Based Skill Standards Proficiency Definitions

NA = Not Applicable

1 = Developing

2 = Basic

3 = Proficient

4 = Mastery

	9th	10th	11th	12th		9th	10th	11th	12th
Workplace Safety					Robotic Systems				
Demonstrates the use and care of appropriate personal protective equipment, including safety glasses, face shields, respirators, and hard hats.					Demonstrates FANUC Robotics System equipment to safely power up the robot from a complete shutdown and perform a function.				
Computation, Formulas, Metric Measurement					Programming				
Performs calculations involving metric units of measurement for area, volume, mass, and weight.					Writes programs formatted based on the conventions of a specific language to include Python and C++.				
Mechanical Concepts					Engineering Design				
Designs, build, and demonstrates the six simple machines (lever, inclined plane, wheel and axle, screw, wedge, and pulley) as their application to robotics.					Designs, tests, evaluates and refines a robotic or automated system to perform specified operations. ensuring quality, efficiency, and manufacturability of the final product.				
Electrical Concepts					Digital Electronics				
Calculates voltage, amperage, and resistance using Ohms Law.					Assembles, uses and troubleshoots all components of robotic and automated systems.				
Computer Hardware					2D and 3D Design				
Describes and demonstrates the use of computers to manipulate a robotic or automated system and describe the fundamentals of computer numeric control (CNC).					Creates hand drawn designs and schematics. Translates a hand drawn design to a 2D and 3D CAD program to create designs.				
Robotic Systems					Career Development Portfolio				
Uses a VEX Robotic system equipment to program and manipulate a robot, using a teach pendant and a PC host computer.					Creates a career development portfolio using appropriate writing skills to create cover letter, resumes, samples of work, and career plan to be used in the job seeking process.				

WORK-BASED LEARNING			POSTSECONDARY CREDIT				
Type of WBL Experience	Year	Hours	College Course	Possible Cr.	Attained		
			CIS 100 Information and Computer Literacy	3		Y	N
			ENG 103 Freshman Composition and Literature I	3		Y	N
			ENG 104 Freshman Composition and Literature II	3		Y	N
			MET 150 Introduction to Engineering	3		Y	N
			MET 161 Engineering Drawing I	3		Y	N
			Technical Assessment		Passed		
					Y		N
					Y		N
					Y		N
			CERTIFICATIONS, ENDORSEMENTS, LICENSES				
			Title	Date Obtained			
			FANUC HandlingTool Operation and Programming				
			FANUC 2D iRVision Operation & Programming				



EMPLOYABILITY PROFILE

Robotics Automation



			FANUC CRX Collaborative Robot Operation & Programming	
			Rockwell Automation / Allen-Bradley PLCs	
			STUDIO 5000™ LOGIX DESIGNER LEVEL 1	
TOTAL				

AWARDS, SPECIAL RECOGNITION, SCHOLARSHIPS	DIPLOMA	Date Obtained	
	Diploma Earned: Insert diploma type here		
	Technical Endorsement on Diploma?	Y	N
		Y	N
		Y	N

Approval Date: _____ Principal: _____

CTE Instructor: _____ Industry Partner: _____