



EMPLOYABILITY PROFILE

Semiconductor Microchip Technology

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
Safety in the Work Environment					Applied Physics: Light				
Demonstrate the use and care of appropriate personal protective equipment, and identify safe handling, labeling and storage protocols for hazardous (chemicals) materials used in semiconductor technology.					Demonstrate reading of a spectrometer and spectrophotometer.				
Hand Tools					Industrial Electricity				
Identify and demonstrate the safe use of common hand and power tools. Tools such as torque wrench, hex wrench, pliers, clamping devices, screwdrivers, chisels, saws, soldering, wire cutters, and connectors.					Demonstrate use of a multimeter, ohmmeter and ammeter.				
Technical Drawing					Vacuum				
Demonstrate proficiency in creating and interpreting electrical/electronic drawings or schematics.					Demonstrate the process of creating a small vacuum and explain why and when a vacuum environment is used during semiconductor manufacturing.				
Digital Literacy					Programming Fundamentals				
Demonstrate safety in personal use and information when using technology and summarize strategies to check validity of internet sources.					Translate logical expressions into schematic or symbolic representation and design a program, using an algorithm, pseudocode, a flowchart, and/or a decision table.				
Sand to Semiconductor					Fluid Power				
Demonstrate and describe how wafers are handled, cleaned after cutting, and are finished.					Demonstrate calculation of flow rate, flow velocity and mechanical advantage in a hydraulic steam.				
Cleanroom					Programmable Logic Controls				
Demonstrate how to enter and exit a cleanroom. Describe the process and procedure for maintaining a cleanroom environment.					Identify components of a PLC and demonstrate functions of the components.				
					Career Development Portfolio				
					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		
			ELM-100 Intro. To Problem Solving	2		Y	N
			ELM-101 Technical Drawing Interpretation	1		Y	N
			ELM-102 Safety in Industry	1		Y	N
			MAT-103 Tech. Math Fundamentals	2		Y	N
			ELM-104 Industrial Electricity I	2		Y	N
			ELM-105 Programming Fundamentals	2		Y	N
			ELM-106 Intro To Industrial Tools	2		Y	N
			ELM-107 Intro to Fluid Power	2		Y	N
			MAT-108 Intro to Statistical Process Control	2		Y	N
			ELM-109 Introduction to Mechanisms	2		Y	N
			ENG 103 Freshman Composition and Literature I	3		Y	N



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		ENG 104 Freshman Composition and Literature II	3		Y	N
Technical Assessment			Passed			
			Y		N	
			Y		N	
			Y		N	
CERTIFICATIONS, ENDORSEMENTS, LICENSES						
Title			Date Obtained			
		ELECTROMECHANICAL CERTIFICATE				
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: _____