

# EMPLOYABILITY PROFILE

## Computer Chip Technology and Production

### 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
<b>Safety in the Work Environment</b>					<b>Applied Physics: Light</b>				
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.				
<b>Hand Tools</b>					<b>Industrial Electricity</b>				
Identify and demonstrate the safe use of common hand and power tools: Torque wrench, hex wrench, pliers, clamping devices, screwdrivers, chisels, saws, wire cutters, and connectors, power drill.					Demonstrate use of a multimeter, ohmmeter and ammeter.				
<b>Technical Drawing</b>					<b>Vacuum</b>				
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.				
<b>Digital Literacy</b>					<b>Programming Fundamentals</b>				
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.				
<b>Sand to Semiconductor</b>					<b>Fluid Power</b>				
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 system.				
<b>Cleanroom</b>					<b>Programmable Logic Controls</b>				
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.				
					<b>Career Development Portfolio</b>				
					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.				

Approval Date: \_\_\_\_\_ Principal: \_\_\_\_\_

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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
			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	