



# EMPLOYABILITY PROFILE

## Semiconductor 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
<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. tools such as torque wrench, hex wrench, pliers, clamping devices, screwdrivers, chisels, saws, and wire cutters, and connectors.					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.				

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



# EMPLOYABILITY PROFILE

## Semiconductor Technology



			ENG 104 Freshman Composition and Literature II	3		Y	N
			<b>Technical Assessment</b>		<b>Passed</b>		
				Y		N	
				Y		N	
				Y		N	
			<b>CERTIFICATIONS, ENDORSEMENTS, LICENSES</b>				
			<b>Title</b>		<b>Date Obtained</b>		
			ELECTROMECHANICAL CERTIFICATE				
<b>TOTAL</b>							

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: \_\_\_\_\_



# EMPLOYABILITY PROFILE

## Semiconductor Technology

CTE Instructor: \_\_\_\_\_ Industry Partner: \_\_\_\_\_



DRAFT