

ELECTRONICS

Skills Indicators

Student: _____
 Address: _____
 City, State Zip: _____
 Telephone: _____

COMPETENCY CERTIFICATION RATINGS GUIDE

- Mastered** - Independently meets the industry level standard for knowledge or performance
Assist - Requires some assistance to meet the industry level standard for knowledge or performance
Attempt - Unable to meet the industry standard standard for knowledge or performance without significant assistance
Blank - No exposure or experience to date

Mastered **Assist** **Attempt** **A: Safety**
 initials/date date date

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1. Demonstrate general lab/work site safety habits

Mastered **Assist** **Attempt** **B: Tools**

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1. Demonstrate safe use of hand tools and equipment

Mastered **Assist** **Attempt**

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- C: Analyze, design and perform measurements in a D.C. circuit.**
1. Identify components and ratings
 2. Identify schematic symbols
 3. Identify parts of an atom
 4. Identify four methods of generating D.C.
 5. Demonstrate proper use of multi-meters to measure voltage, current and resistance
 6. Demonstrate the use of resistor color code to determine the value of resistors
 7. Demonstrate the use of electronics algebraic equations to solve basic D.C. circuit problems
 8. Demonstrate the use of Ohm's Law
 9. Calculate series, parallel and complex resistance circuits

Mastered **Assist** **Attempt**
 initials/date date date

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D: Analyze, design and perform measurements in an A.C. circuit

1. Identify the rules of magnetism as applied to A.C. circuits
2. Convert A.C. voltage and current values
3. Measure A.C. frequency, period, and phase using the oscilloscope and frequency counter
4. Calculate the impedance of series and parallel tuned circuits
5. Calculate using mathematical applications to analyze complex A.C. and combination A.C./D.C. circuits

Mastered **Assist** **Attempt**

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E: Analyze, design and perform measurements on solid-state circuits

1. Identify semi-conductor materials
2. Define and use solid-state terms and symbols
3. Measure the relationship between NPN and PNP transistor
4. Build and measure rectifier circuits
5. Build and measure SCR control circuits
6. Construct and test LED indicator circuits



FREDERICK COUNTY PUBLIC SCHOOLS



Career & Technology Center
 7922 Opossumtown Pike
 Frederick, MD 21702
 301-694-6920

Mastered	Assist	Attempt	F: Analyze, build and perform measurements on digital circuits
/			1. Define and use digital terms and symbols
/			2. Identify digital components
/			3. Build binary logic circuits
/			4. Use logic probe to test digital circuits
/			5. Build and test codes, encoding and decoding circuits
/			6. Calculate mathematical circuits in digital applications
/			7. Build and test flip-flop circuits

Mastered	Assist	Attempt	G: Explain and demonstrate the use of a microprocesso
/			1. Define and use micro terminology
/			2. Convert decimal numbers into binary and hexadecimal numbers
/			3. Convert binary numbers to hexadecimal numbers
/			4. Convert hexadecimal numbers to binary numbers
/			5. Convert a binary and hexadecimal numbers into a decimal numbers
/			6. Calculate mathematical circuits in digital applications
/			7. Build and test flip-flop circuits

MASTERY OF CONTENT	
	# of skills mastered
36	# of total skills
0.0%	MASTERY

INTERNSHIPS/WORK STUDY		Employer:	
Employer:		Employer:	
Address:		Address:	
Contact/Supervisor:		Contact/Supervisor:	
Phone #:		Phone #:	:
Employment Dates:		Employment Dates:	
Job title/description:		Job title/description:	

ATTENDANCE & EMPLOYABILITY SKILLS
Dates of enrollment:
Attendance:
Ratings Scale
3 - Exemplary
2 - Good
1 - Fair
0 - Poor
RELATIONS WITH OTHERS
(effectiveness in working with students, instructors, and others: cooperation:show of respect)
DEPENDABILITY
(attendance, punctuality, adherence to schedules and deadlines consistency and results, perseverance)
WORK ATTITUDES
(willingness to learn, willingness to accept and profit from evaluation, enthusiasm, initiative, commitment, pride in work)
COMMUNICATIONS
(listening, speaking, and nonverbal skills; effectiveness in communicating with students, teachers, and others)
SAFETY
(follows safety guidelines for equipment and tool operations and considers the safety ramifications of all actions in the workplace)
Additional Comments:

RELATED STUDENT ACHEIVEMENT INFORMATION
Participation in SkillsUSA VICA (Activities/Events/Offices):

I certify that the ratings on this performance profile for **student name** are the result of personal observations and evaluations and further certify that **student name** has mastered **X** of the **Y** skills that were covered in the Electronics program.

Signature _____ Date _____
Instructors Name Date

I certify that the ratings included in this competency profile were completed by my Electronics instructor.

Signature _____ Date _____
Student's Name Date