

**Franklin County Career and Technology Center
FALL OCCUPATIONAL ADVISORY COMMITTEE REPORTING FORM**

PROGRAM AREA: **ELECTRONICS**

MEETING DATE: 10/5/2017 **START:** 6:00 PM **ADJOURN:** 8: 00 PM

COMMITTEE CHAIRPERSON: Ben Coleman

COMMITTEE MEMBERS/GUESTS ATTENDING:

Ben Coleman
Shawn Eckenrode
Justin Divelbiss
Josh Holtry
Casey Highlands
Steven Wilmot

BRIEF MEETING SUMMARY

Overall goals of the meeting were to discuss last years' recommendations, facilities, equipment and supplies (including the five-year equipment list), and general comments, recommendations, and suggestions. Members confirmed the need for a basic electronics program in Franklin County. They are all currently employed in the field and expressed a continued need for electronics technicians. The need may come and go in spurts but a continuous supply of certified or post-secondary educated technicians helps their companies meet their missions. The greatest need is at the Letterkenny Army Depot where much of the workforce continues to approach retirement age and the federal government and contractors continue to hire electronics technicians.

ADMINISTRATIVE RESPONSE:

The administration supports the continued update of equipment and agrees with the need that exists in the workplace, particularly LEAD. We are working with LEAD as they revitalize potential Coop opportunities through their pathways program and hope to see more students being introduced to entry-level federal employment. We will once again explore the possibility of installing an emergency stop button in the classroom through our Maintenance Department.

Shawn Eckenrode

SECRETARY/CHAIRPERSONS SIGNATURE

SECTION 1: APPROVAL OF MINUTES OF LAST MEETING

PLEASE CHECK ONE OF THE ITEMS LISTED BELOW:

- The minutes of the last meeting are approved as presented.
- The minutes of the last meeting are approved with the following changes.

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SECTION 2: REVIEW OF RECOMMENDATIONS FROM LAST MEETING

- An **Emergency Stop** button has still not been installed in any area of the shop or classroom!

SECTION 3: FACILITIES

FACILITIES REPORTING FORM:

	<u>Satisfactory</u>	<u>Unsatisfactory</u>
1. The room provides the most advantageous use of space available	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Room lighting is adequate for the the health and safety of the students.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The room/lab areas are clean	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Tools and equipment are arranged in an orderly and task-appropriate manner	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. The area has adequate storage facilities for permanent and consumable supplies	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Panic buttons are in operating condition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Strategic floor areas are properly lined	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Strategic floor areas are free of obstructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. There are adequate storage facilities for flammable and toxic materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. There is adequate ventilation for flammable and toxic materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Fire extinguishers are visible, accessible, properly maintained and adequate in number	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Classroom space for instruction in related theory is adequate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. The classroom/shop/laboratory temperature is comfortable	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | |
|--|-------------------------------------|--------------------------|
| 14. The classroom/shop/laboratory is large enough for the number of students served | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 15. Persons with disabilities are accommodated in the classroom/shops/laboratory | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 16. Students have appropriate access to to equipment and supplies | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 17. As much as possible, the laboratory area mirrors the accommodations found in the workplace | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMITTEE SUGGESTIONS/RECOMMENDATIONS FOR UNSATISFACTORY ITEMS:

- 1.

SECTION 4: EQUIPMENT AND SUPPLIES

A. EQUIPMENT AND SUPPLIES REPORTING FORM:

- | | <u>Satisfactory</u> | <u>Unsatisfactory</u> |
|--|-------------------------------------|--------------------------|
| 1. The supply of tools and equipment is adequate to implement the curriculum | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Equipment and tools meet current industry standards and are appropriate for teaching the occupational skills for that business/industry | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. The condition of the equipment indicates proper care and maintenance | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Equipment should meet OSHA safety standards with respect to guards, shields, grounding, etc | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Safety protection (safety glasses, shields, etc.) is provided and instruction in the proper use of them is provided | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Supplies are adequate to implement program objectives | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. An inventory of equipment is maintained by the teacher or other staff member | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. A schedule for repair and replacement of equipment, tools and supplies is maintained | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. A security system for the use of tools, equipment and supplies is maintained | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Material Safety Data Sheets (MSDS) are provided for each flammable, toxic or explosive material as recommended by OSHA | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMITTEE SUGGESTIONS/RECOMMENDATIONS FOR UNSATISFACTORY ITEMS:

1.

B. RECOMMENDATIONS ON EQUIPMENT AND SUPPLIES

- 1.) What additional equipment is recommended to meet current industrial/occupational skill standards?
 - Equipment calibration is still being worked out with Acucal in Manassas.
- 2.) What equipment is recommended for replacement within the next two years?
 - Additional surface mount rework equipment is needed. Shawn will upgrade current equipment and expand SMT capability. Casey is willing to come in and help with SMT techniques. Also add additional tips for “resistweez” handpieces.
 - Ben recommended having outside trainers come in to train in SMT since Shawn does not have extensive SMT experience.
- 3.) What equipment is recommended for replacement within the next five years?
 - Shawn will buy more soldering stations this year...three were purchased last year and at least three more will be purchased this year.

COMMITTEE SUGGESTIONS/RECOMMENDATIONS/COMMENTS:

1. See above.

C. UPDATE FIVE YEAR EQUIPMENT LIST FROM DISCUSSION AND ATTACH TO THIS DOCUMENT:

SECTION 5: GENERAL DISCUSSION

LIST ITEMS FOR DISCUSSION NOT COVERED IN OTHER AREAS:

- See below

COMMITTEE SUGGESTIONS/RECOMMENDATIONS/COMMENTS:

1. Shawn introduced fiber optic circuits and continues to develop the lessons.
2. Added additional training on AC amp analysis and RLC circuits. NOCTI scores improved on AC Circuit analysis.
3. MOSFET lessons and circuits/projects added.
4. Josh recommended more troubleshooting. Dean recommended using commercial “solder projects” to use for troubleshooting. Ben will look into getting some equipment to repair.
5. Justin recommends teaching that flux residue be cleaned from PCBs.

FIVE YEAR EQUIPMENT LIST

	<u>Item</u>	<u>Justification/Why is it needed?</u>	<u>QTY</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Current 2017-18	Surface mount rework equipment	Most electronics products are now made with surface mount technology. We have some surface mount assembly equipment in the program but more is needed.	1		
	1				
	2				
	3				
	4				
2018-19	1 Install Emergency Stop button in lab	OAC has been recommending that this is needed for safety reasons even though it may not be required by state regulations	1	<u>\$6000-</u> <u>\$8000</u>	<u>\$6000-</u> <u>\$8000</u>
	2				
	3				
	4				
	5				
2019-20	1 Spectrum analyzer	Analyze RF signals and filter operation.	1		
	2				
	3				
	4				
	5				

Item

Justification/Why is it needed?

QTY

Unit
Cost

Total
Cost