



School of Applied Technologies & Apprenticeship
Advisory Meeting Minutes for Electronics - **Biomedical**

Electronic Equipment Repair

November 18th, 2024 9am-9:45 am

College Faculty: Dr. Rad Khosrow, email: Rad.khosrow@norcocollege.edu

Note taker: Stephanie Karnes, CTE Projects Specialist

Attendees:

<i>Morgan Topper</i>	<i>COO, Universal Health Services, Inc. (Corona-Regional Medical Center)</i>	<i>Morgan.Topper@uhsinc.com</i>
<i>Armando Saldana</i>	<i>PWB/PCB Designer III, Panasonic Avionics Corp.</i>	<i>Armando.Saldana@Panasonic.Aero</i>
<i>Paula Barrera-Partida</i>	<i>Employment Placement Coordinator, Norco College</i>	<i>Paula.Barrera@norcocollege.edu</i>
<i>Stephanie Karnes</i>	<i>CTE Projects Specialist, Norco College</i>	<i>Stephanie.Karnes@norcocollege.edu</i>

1. Welcome and Introductions
2. Overview of Electronics Program presented by Dr. Rad Khosrow
 - a. Norco College currently offers a certificate in Digital Electronics and an associate degree.
 - b. Certificate in Electronics focuses on fundamentals of electronics, circuit design and prepares students for entry-level positions in electronics and related industries.
 - c. Norco College is building upon existing partnerships with Panasonic and looking to expand internship opportunities with Panasonic and other industry partners.
 - d. Associate Degree of Science in Electronics covers electromagnetic spectrum, integrated circuits, and transistors and is a more in-depth study of electronics engineering. Prepares students for roles like aerospace engineer, broadcast engineer, design engineer, and IT consultant.
 - e. Electronics program housed within the School of Applied Technologies and Apprenticeships at Norco College.
3. New curriculum for Biomedical Electronic Equipment Repair Certification program presented by Dr. Rad Khosrow
 - a. One year certificate and 2-year associate degree pathways proposed

- b. Statement of Need presented
 - i. The program meets the demand of healthcare industry for biomedical technicians as the growing demand for biomedical devices has increased and there is a shortage of technicians qualified to repair and maintain with advanced skill sets. (See PowerPoint for exact figures)
 - ii. Need for knowledge in safety regulations, cybersecurity, medical terminology, and advanced hands-on maintenance, troubleshooting, and repair with real medical devices.
 - 1. Norco College is looking for partnerships for donations of medical equipment that we can use for our labs.
 - iii. Inland Empire lacks Biomedical Technician certification programs at the Community College level.
 - iv. Core curriculum areas include biomedical instrumentation, healthcare compliance, advanced biomedical maintenance, and electronics and IT fundamentals. Instructional methods include hands-on lab, clinical internships and capstone projects for problem solving and opportunities for internships built into the capstone with employer partners. (See attached Power Point for course listings and proposed curriculum)
 - v. Planned enhancements include testing and calibration tools, medical devices, and laboratory and classroom resources including computers specialized with software for diagnostics and biomedical software, safety equipment, and lab equipment.
 - vi. Program will need funding support from CTE grants, donation of used equipment, and future grants.
- 4. Discussion on proposed new Biomedical Electronic Equipment Repair program
 - a. Morgan Topper provided crucial feedback confirming the need at Corona-Regional Medical Center and in the healthcare industry.
 - i. *Current position posted: Alaris Infusion pump technician. Corona-Regional Medical Center is looking to expand hiring as hospital regulatory environment created a robust cleaning process that exceeds in-house capabilities.*
 - ii. *Corona-Regional hospital needs to have a biomedical technician in the disciplines that are more challenging from an equipment perspective such as: laboratory, imaging, cath labs, and operating rooms.*
 - iii. *Looking to purchase new chemistry analyzers in January 2025 and would be great for students to learn on and how to troubleshoot and repair as well as the OR beds such as Jackson Pratt table, robot table.*
 - 1. *Hospital beds in general that biomedical technicians would need to understand how to fix*
 - iv. *Happy to partner with Norco College and the curriculum looks ideal*

for the needs of Corona-Regional hospital and perhaps in the future we can work together and create a capstone project into an internship, for student rotations in the hospital in some capacity. And if the capstone project is tied to a specific department or piece of equipment that students could get experience with would be great.

v. *Recommendations for Curriculum-Morgan Topper*

1. *Within imaging, the MRI and CT scan equipment is extremely important life saving and expensive equipment that can not go down. A lot of hospitals contract with GE for repairs for 1 year only and is a common career pathway for biomedical students but Corona Regional would be interested to have more in-house biomedical team members to focus on Cath Lab, MAT lab, Bi-plane, single plane*
2. *Hospitals look for imaging lab and procedural lab experts with expertise in those areas aforementioned as they are crucial to a hospital and patient care.*
3. *Question from Armando-Do we have any extra information about ELE-28 course?*
 - a. *Dr. Rad responded that he is currently updating ELE-28 curriculum and will get input from Armando on description once it's revamped.*

5. Labor Market Indicators Data update presented by Dr. Rad

- i. Data presented from Center of Excellence (COE) to support new program in Biomedical based on local job demand, job titles, job wage/salary info reinforces high wage high skilled jobs in the Inland Empire Desert Region (Report provided as attachment with minutes)

6. Review actions and next steps

- i. Dr. Rad expressed gratitude for the assistance provided by Morgan and Armando and the continued partnership with Corona-Regional Medical Center.
- ii. Dr. Rad to follow up with Josh, the Regional Director at Corona-Regional Medical Center who works with Morgan Topper and Morgan.
- iii. Save the date-March 28, 2025 next Industry Advisory meeting. Save the dates will be sent out soon.

7. Adjournment at 9:45am