Owens Community College

Biomedical Electronics Technology Advisory Meeting
Date: Friday, April 1, 2016
Location: Room 130, Industrial & Engineering Technologies Building
Industrial Attendees: Steve Hanenkrath, Scott Loehrke, Nathan Miles, Jacob Morrison, Mike Sparks
Student Attendees:
Owens Attendees: Jacey Parks, Glenn Rettig, Diana Stachowiak, Paul Svatik

Topic	Discussion/Rationale	Recommendation/Decision/Action
Call to Order and Review of Previous Minutes	• The meeting was called to order at 12:15 p.m. • Introductions were made.	• Minutes from the spring 2015 meeting were reviewed and approved with no corrections.
Enrollment and Retention Report	• The overall School of STEM enrollment, that includes Toledo and Findlay, is 4,190 students compared to 4,251 last year at this time. This is an increase of 15%. • The Biomedical Electronics program combined Toledo and Findlay enrollment is down 6 students to 34 or 15%. Toledo Campus is down 6 students or 15% and Findlay Campus is holding steady with 2 students. • People's perception of what an engineering technician does is part of the problem. Students who graduate from Owens who go on to a four-year university or have their employer pay for their continuing education do just as well as those high school graduates that go right to a four-year institution.	• Enrollments are down all over the United States. The decline in population means fewer students are coming out of the high schools. • School of STEM advisors direct students that want to continue their education at four-year institutions into the appropriate courses needed to transfer. These students have a big advantage by taking Owens' hands-on courses. There are a number of people with Engineering Science degrees coming to Owens to get their associate's because they cannot find a job.
Faculty Report	• Paul Svatik reported that students from the Toledo Technology Academy (TTA) visited Owens last fall, but they were only given a five minute presentation. EJ Smith from Toledo Hospital and Steve Hanenkrath from UTMC were willing to host students from TTA. UTMC hosted six students from TTA in February of 2016. Bowsher High School is also working with UTMC. • Mike Sparks has a very wonderful group of five students this semester. All is going well at the internship sites. These students are focused and have direction -- they know where they want to go.	• Positive responses were received from the UTMC and Toledo Hospital Biomedical Department tours. • Paul Svatik stated that more recruiting needs to happen to get students into the program. • Student feedback on the internship program is very good. They like the hands-on experience.
Student Report	• The student was unable to attend, so there is nothing to report.	
Outcomes Assessment Status Report	• Every spring, Diana Stachowiak shares the results of how students are doing in individual courses with advisory members. She was unable to do it this spring, due to the College dropping the TaskStream database where all the information was stored. With the College being on fiscal watch, the software became cost prohibitive and was	• Diana Stachowiak stated she is collecting outcome data, but it will take a little longer for her to build the reports as she will have to create new templates. This information should be available for the fall meeting.

	discontinued.	
Outcomes Competency Validation	• There are industry competencies in all areas of the Biomedical Electronics field.	• There is state-of-the art learning validation for this program and competencies are based on active industry feedback and curriculum updates.
Professional Development, Partnerships and Articulation	• The State is emphasizing that representatives from colleges, universities and high schools meet to agree on common material and standards for each program. These standards are called Transfer Assurance Guides (TAG) courses. • The benefit of having courses TAG'd is that all schools with a corresponding TAG'd course would automatically accept our TAG'd course for credit as long as the student has passed the course with a C or better. If the student gets a C and wants to transfer the credit to Owens, Diana Stachowiak will look at it a little closer and meet with the student to see how solid they are to ensure the student's success in the class.	• EET TAG courses include EET 101, EET 102, EET 110, EET 201 and EET 205. • TTA's level of outcomes does not match EET 101. It is more likely their outcomes for PLC's will match with our PLC I and II courses. There are nine courses over all the Owens STEM technologies that TTA does match. • Owens and the home high school both get funding for students who are participating in the College Credit Plus program. Owens does have the highest number of College Credit Plus students in the State of Ohio. • Paul Svatik will be holding an informational meeting for next fall's interns later in April.
Program and Curriculum Enhancements	• Diana Stachowiak reported that companies that have been contacting her are looking for employees with "new technology" (knows the priciples of electronics and knows how to program PICAXE chips, Raspberry Pi boards, and other microprocessor boards). • Diana asked if Biomedical technicians need to have training on these mobile boards. Scott Loehrke, Nathan Miles, and Jake Morrison said that the Biomeds do not need to focus on programming microprocessor boards, rather they need to study operating systems and CISCO CCNA courses. Scott, Nate, and Jake concurred that networking, knowledge of various operating systems, and virtualization (cloud technology) are the keys to moving up in the company. • Diana asked if members felt there was a need for robotics in the Biomedical program. To this the committee members said not now, maybe in the future, network technologies are more important. Advisor Jacey and Paul Svatik mentioned robotic surgery and the committee acknowledged that that is coming, but it is not an immediate need.	• The "new technology" is being included in the upper level programming courses. • Advisory members present felt that staying with networking in the Biomedical program was important. Graduates need to be savvy in a number of operating systems and have soft skills as well. • Committee members felt that having students start building a LinkedIn page in their first semester is good because most industry positions are filled through LinkedIn. Developing the pages should be continued as the students progress through the program. May need to consider having a "networking" social event that is mandatory for students, to help them develop soft skills and connect with other people in their field. Also may need to have course projects that require teamwork to help develop soft skills. • Curriculum issues will be discussed further at individual advisory meetings in the fall. • Paul Svatik proposed that maybe the Biomed program could have two paths, one for network technology and

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	• Nate Miles, Steve Hanenkrath, and Jake Morrison commented that the students need to develop more soft skills as they will need to work on teams with others.	the other for robotics. The committee thought this is a good possibility that should be considered.
Equipment, Facilities, and Staffing	• Owens currently has some of the lowest lab fees in the state, so department heads were told to adjust them where needed. A portion of lab fees will be available to be spent now and a percentage will be put aside for future needs.	• Funds to replace equipment and software are being sought from the Owens Foundation, company donations, grants and lab fees.
Accreditation Status	• Full six year ATMAE accreditation was awarded to all 11 programs that were reviewed. Partial compliance was given in the area of tracking alumni.	• Getting student's personal email addresses in the first year classes is being discussed as well as having students set up a LinkedIn page. Instructors can have students update their pages as an assignment in various courses throughout the curriculum.
Other	• Diana Stachowiak thanked everyone in attendance for their time and commitment to the program. • Meeting adjourned at 1:25 p.m.	• Mike Sparks informed everyone that he will be retiring. Working at St. Vincent's and Owens has been a wonderful career for him. Nate Burks will possibly be taking over for him. • Paul Svatik was commended for being one of the EECT Department's most tech savvy instructors.