**Department/Program Review Summary**

**2021-2022**

**Department: 0561 – Electronics Engineering Technology (EET) and 0572 – Engineering ACT (EGR)**

**Date of Review:** April 1, 2022

**Review Team Members and Titles:**

Anthony Ponder, Provost

Jared Cutler, Assistant Provost of Accreditation and Assessment

Cari Gigliotti, Faculty, Chemistry

David McFadden, Professor, Allied Health Instruction

Kia Nalls, Worksite Developer, Work-Based Learning

Melissa Grymin, Academic Advisor, Academic Advising

Rocky Belcher, Chair/Professor, Management & Marketing Instruction

Trish Burke-Williams, Manager, Academic Advising

**Department Members Present:**

Karl Hess, Interim Dean, Science, Mathematics and Engineering

John Pax, Chair, Automation & Control Technology and Electronics Engineering Technology

Faculty:

Dennis Hance, Faculty/Electronic Tech, Electronics Engineering Technology

Jake Fullard, Associate Professor/Automation & Controls Technology with Robotics

Jeffrey Weaver, Assistant Professor, Automation & Control Technology

Kenzie Grogean, Lab Tech, Electronics Engineering Technology

Michael Watkins, Assistant Professor, Automation & Control Technology

Tillie Watts-Brown, Professor, Electronics Engineering Technology

Victoria Collinsworth, Lab Tech, Automation & Control Technology

Wesley Evans, Program Coordinator, Automation & Control Technology

Staff:

Teri Hecht, Administrative Assistant, Automation & Control, Computer Aided, Electronics Engineering & Industrial Engineering Technology

**Commendations:**

* This is a department with a remarkable level of dedication and concern for students. Faculty in this department are engaged at an impressive level – engaged in promoting the department, engaged in creating new opportunities for students, and engaged in going to extra mile in everything they do. The Review Team was so impressed by the way faculty engaged in the discussion in the Program Review meeting, and their willingness to jump in to answer questions and share insights. There appear to be strong interrelationships among faculty, and a true spirit of teamwork in the department that the Review Team found refreshing.
* It is also a department that benefits from the solid leadership of the department chairperson, who had led the department in exciting, innovative directions during the past several years.
* The department should be especially commended for the development of the Integrated Services Technician Bachelor of Applied Science proposal. This was a heavy lift for the department. Because of their hard work, Sinclair had the first baccalaureate proposal it has had in years that moved past the first stage of the baccalaureate proposal process.
* Success rates in the courses in the department are exceptional, and appear to be due in large part to the support in learning that students receive from faculty.
* The Review Team wishes to commend the department for its excellent work bringing the ethics course into its programs. Related to that, the department’s involvement with REACH is outstanding. The approach of having a few students participate in REACH, then make presentations to other students is such an innovative, effective way of engendering student involvement.
* The Review Team was so impressed with the recruiting efforts that the department engages in. Recognizing that the support from the Marketing Department was not moving the department in the desired direction, the department increased its outreach activities, even visiting elementary schools. Their work on marketing and recruitment has been nothing short of extraordinary. The department has invested a tremendous amount of time in recruitment, but it appears to have paid off in terms of student enrollment. Well done!
* Faculty in the department truly have a willingness to innovate and improve. Too often, it is easy for academic department to simply do things the way they always have, but this department is not afraid to invest time and energy exploring bold, new approaches to overcoming barriers. It has the foresight to foster relationships through developing connections with other departments at Sinclair. Faculty willingly invest time in the development of new programs that will benefit its students in the workplace. This is a department that is not content to sit still, but is always moving forward.
* The faculty connections with industry in this department are amazing, and are invaluable in providing students with real world perspectives. Having instructors with decades of experience in industry is a huge benefit to students in the program. The connections to industry that faculty have brought with them have been important as well.
* The department deserves strong commendations for the relationships it has developed and maintained with other departments at Sinclair, particularly with Work-Based Learning and Academic Advising. The strong collaborative relationships it has developed allow for side-by-side work with other departments in seamless efforts to help remove barriers to students. One of the secrets to the success of the EET and ACT programs is when presentations need to be made to an employer, this department can always be counted on to show up. In all of their work with departments inside and outside of Sinclair, their work with others is extremely collaborative. The faculty’s commitment to finding the need and endeavoring to meet it is apparent in these efforts.
* The department’s work in setting up new facilities down in Mason deserves special mention. It was a heavy lift getting everything set up at a new location, and the department willingly stepped up to get it done quickly and efficiently.
* The IEEE student group on campus deserves special mention. This is one of the few student groups that are connected to an academic program on campus, rather than just being oriented toward student life. The department’s support of IEEE is highly praiseworthy.
* The development of articulation agreements with WSU, Central State, and other universities in recent years is also highly commendable. The department’s work at Butler Tech is also highly commendable.
* Connecting the ACMT.S.AAS with Sinclair’s EAGLE program provides excellent support for adult learners in the program.
* The Review Team was impressed with the department’s ability to obtain grants. This provides additional resources for the department, both increasing the funds available to the department, as well as increase the prestige of both the department and the College.
* The new student orientation guides are also exceptional. The department’s work around informing students about career opportunities, helping students understand what they will be doing in the workplace, why they are learning what they learn, and helping them understand what the end goals are all extremely helpful in motivating students to engage in courses in the program.
* The department’s training relationship with Mitsubishi is also highly commendable, and demonstrates the level of respect local manufacturers have for the department.
* The department’s work around apprenticeships and internships is outstanding.
* Students are used to pushing a button and things just happen for them – the department does a great job of teaching what happens on the back end, which helps excite students and attract them to the field. The department takes advantage of this powerful tool for attracting students.
* Faculty in the department obviously have a strong dedication to military veteran success, and a genuine concern for veterans.
* The department did a nice job of revising their program outcomes in EET because of the ABET findings report from 2016.
* The department also did an exceptional job with assessment of program outcomes as reported in the self-study.
* It was clear from the self-study that the department took the goals and recommendations from last Program Review seriously, and did a great job of prioritizing them, making excellent progress over the past five years.

**Recommendations for Action:**

* The department has really done a great job of developing connections that are beneficial to their students and should be sure that these connections are publicized. For example, while the department has worked with the EAGLE program, AMCT does not show up on the EAGLE website. The department should also be sure that articulation agreements are well publicized for students who might be considering transfer – how can an awareness of these agreements among students be cultivated?
* The Review Team recommends that the department work with the Division Assessment Coordinator to incorporate General Education assessment rubrics for both Critical Thinking and Information Literacy into their courses in order to gather data on program students, as well as to contribute to institution wide assessment of these outcomes. The Division Assessment Coordinator can also help the department develop insights on how to glean data from General Education rubrics where the data was collected outside of courses in the department.
* The department’s recruitment outreach has been remarkable, and can serve as an example to other departments. The Review Team strongly recommends that faculty in the department develop a presentation on best practices for recruiting students for Fall Faculty Professional Development Day and/or the Center for Teaching and Learning.
* Given the faculty’s obvious concern for veterans, the Review Team recommends outreach to Sinclair’s Military Family Education Center (MFEC) to determine how veteran students can be better served. Much of the department’s knowledge base aligns with skill sets are used in the military, and capitalizing on this alignment seems natural. The department may also have the opportunity to share ideas about how improvements can be made in working with veterans in terms of communication and collaboration.

**Overall Assessment of Department’s Progress and Goals:**

This is an exceptional department, one that benefits from strong leadership, and faculty that go well above and beyond their job descriptions to create exceptional learning opportunities both inside and outside the classroom. It is a department that is steeped in cutting edge technology and emerging trends in manufacturing. Sinclair could not ask for a department with stronger connections to industry.

It is also a department that engages in systemic change, one that takes a very strategic approach to improving services to students and local businesses. It has taken steps to establish itself in the community, developing an enduring reputation that will persist for years to come. Not only do local employers attest to the quality of this department, but ABET accreditation further documents the high standards that the department meets (and often exceeds). The department’s support of the IEEE student group, one of the more prestigious groups in engineering, is a further illustration of its high quality.

This is also a department with a strong focus on continuous improvement, one that is willing to accept external feedback and act on it. Faculty in the department clearly take processes like Program Review, program accreditation, and Advisory Board feedback seriously – interactions with these processes is not just an empty exercise for them, but an opportunity to help move the department forward. The department sets goals based on feedback received from these kinds of external sources, which speaks to their commitment to ever improving their ability to provide students with the best learning experiences possible.

**Institutional or Resource Barriers to the Department’s Ability to**

**Accomplish Its Goals, if any:**

* In the meeting with the Review Team, the department expressed concern regarding lack of appropriate space. The department will want to partner with the Division Dean to advocate for space needs in the Backfill process.
* Marketing is a challenge for many departments. This department responded by increasing outreach activities – but this can be challenging given the demands of teaching and other department activities. Are there supports that could be offered to help departments with outreach activities such as these?
* Programs such as the ones in EET and ACT are capital intensive – in order for them to grow, Sinclair will need to remember that the benefit to local industry and the community is worth the capital investment that is entailed.
* Given the hands-on nature of the programs the department offers, the College will need to continue to be sensitive to class sizes that facilitate a high level of interaction in its courses.