**Department/Program Review Summary**

**2016-17**

**Department:** Industrial Engineering Technology/Operations Technology (IET/OPT)

**Date of Review:** March 23, 2017

**Review Team Members and Titles:**

Dave Collins, Provost

Jim Badger, Senior Academic Advisor, Academic Advising

David Bodary, Professor, Communication

Jared Cutler, Assistant Provost of Accreditation and Assessment

Chuck Edmonson, Professor & Program Coordinator, Industrial Engineering Technology,

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Emily Garber, Chair/Associate Professor, Physical Therapist Assistant

Jim Hill, Ohio TechNet Project Manager, Workforce Development & Corporate Services

Larraine Kapka, Division Assessment Coordinator, Science, Math and Engineering

Mike Oaster, Associate Professor, Emergency Medical Services

Rena Shuchat, Dean, Health Sciences

Heather Stoner, Assistant Professor, Physical Therapist Assistant

Charlie Winarchick, IET/OPT Advisory Committee Member

Hanna Weldeselasse, Predictive Analytics Researcher, Research, Analytics & Reporting

**Department Members Present:**

Tony Ponder, Dean, Science, Math & Engineering

Shep Anderson, Chair/Professor, Operations Technology

Faculty and Staff:

Keith Bernheisel

Phil Garland

**COMMENDATIONS:**

* The Review Team was extremely impressed by what the Industrial Engineering Technology (IET) department is able to accomplish with such limited resources. With a chairperson split between overseeing two departments, an Annually Contracted Faculty member, and a lab technician who is also split between two departments, the department is able to offer high quality programs, interface with local employers, recruit students, and continually improve their curriculum and course activities. This is a testament to the hard work and dedication of the members of the department, and the commitment and able leadership of the department chairperson. While there are not as many faculty associated with this program as there once was, the current department members work hard to maintain the same level of quality this department is known for. Even though the department is no longer ABET accredited, the Review Team has no concerns that this will lead to a decrease in quality of the courses and programs they offer, because it is obvious that accreditation considerations were not the department’s motivations for maintaining high standards of quality – rather it was their commitment to their students.
* Along those lines, the Review Team was extremely impressed by this exemplary commitment to students. During the meeting with the Review Team, several stories were shared of department members spending hours working with students outside of work hours, on their own time. The one-on-one work that faculty do advising students appears to pay dividends in terms of the notably high success rates in the department. Faculty should feel extremely proud of what they are able to accomplish because of the strong mentoring relationships they forge with students.
* The high course success rates mentioned above merit additional commendation. Not only are the success rates high in the department, but noting that success rates were “low” in OPT 1100 – Tooling and Machining Metrology relative to other courses in the department (but still higher than the division average), the department carefully reviewed the course and its activities and made revisions that increased the success rates from 79% in 2014-15 to 89% in 2015-16. The department has justifiably earned high praise not just for having such high success rates, but also for avoiding complacency and working to improve them.
* During the meeting with the Review Team, the department noted that their courses contain far more hands-on activities and far less lecture than was the case in their own educational experiences. This was confirmed by a member of their Advisory Board. This focus on learning approaches that work best for students is highly commendable, and represents a great deal of additional work by the department to help improve student learning.
* The department does an outstanding job of preparing students. There is a strong articulation agreement with the University of Dayton (which is very commendable of itself), and faculty there report that Sinclair students do remarkably well after transferring into their program. Employers indicate that those graduates of the program who go straight into the workforce are very well-prepared.
* The department clearly took the goals and recommendations from the previous Program Review, and indeed the entire Program Review process, very seriously. Goals and recommendations from the previous review were prioritized, and largely completed. It was clear that the department had taken the feedback they had received to heart, and were determined to use that feedback to make improvements.
* The strong connections with local high schools, and with Ponitz High School in particular, are highly commendable. One of the department faculty teaches several sections at Ponitz, and while not all of them are IET sections, it helps inform and guide potential students to the program.
* As noted in the Program Review self-study, the department has higher than average gender and racial diversity in its programs. While the department was reluctant to attribute that to any strategies they had implemented, it was noted that their student-centric, highly-involved approach with students appears to be one factor that contributes to the diversity of their program. It is the Review Team’s hope that they continue doing what they are doing in this regard, because it is working in terms of attracting diverse students to its programs.
* The department has a reputation for working very well with Academic Advising, for being responsive to their needs and open to their suggestions. Given the unique insights our academic advisors have in terms of students and how they are impacted by the curriculum, more departments should follow the lead of this department in terms of having a strong, positive working relationship with Advising.
* The department shows evidence of a thoughtful, deliberative approach to decision making. Perhaps the best example of this is the decision to forgo maintenance of ABET accreditation. This was a decision of large import, and the department appears to have carefully weighed the pros and cons, getting input from their Advisory Board and local employers, and ensuring that the decision was well-informed by stakeholders and well-thought out by the department members. This careful weighing of factors involved and avoidance of snap decision-making speaks well of the department’s judgment and ability to carefully weigh decisions.
* It is common in Program Review for the Review Team to make recommendations for departments to improve General Education assessment. This department is one of a small number who need no such recommendation – the department is doing a masterful job of assessing both General Education and program outcomes. That particular section of the self-study was very strong.

**RECOMMENDATIONS FOR ACTION:**

* First and foremost, the Review Team is taking the unusual step of recommending that the department review the recommendations that follow, and prioritize two that will have the greatest impact on increasing enrollment, leaving work on the others until after these two have been largely accomplished. The Review Team was very concerned that with the already stretched resources of the department, asking them to further focus on several recommendations would tax already-stretched resources to an even greater extent. The department should not feel that it needs to work on all of the following recommendations immediately, but should prioritize two of them and report progress on just those in the next Annual Update report. In that Annual Update, the department should be specific about which two recommendations have been prioritized.
* Sinclair’s Grants Office is outstanding, widely recognized as one of the best among the nation’s community colleges. The department is encouraged to reach out to the Grants office and explore whether there are grants available that might supplement the resources currently available to the department.
* The Review Team noted that the mission statement of the department did not adequately describe the programs that the department offers. The layman reading the mission statement would come away with no understanding of what Industrial Engineering Technology entails. The department is encouraged to develop a crisp, concise mission statement that conveys an understanding of what IET is all about, helping potential students understand the field and its applications.
* It appears that some Academic Advisors may not have a thorough understanding of what Industrial Engineering Technology is, and thus may not be well positioned to refer students into the department’s programs. A thorough training with Academic Advisors from the appropriate Career Community is recommended. One suggestion was that Advisors be invited to attend the first few hours of OPT 1100. While this may not be the approach that is taken, some way of educating Advisors and providing an informative overview of the department’s programs is needed.
* Not all Engineering technology students succeed in their program of study – is there an opportunity for the department to recruit students who are struggling or have failed in other Engineering technology programs at Sinclair? Could outreach to undecided students perhaps yield increased enrollments in the department’s programs?
* In the discussion with the Review Team, there was talk of students who never intend to complete a credential, who take a limited number of courses and then leave and find work. Is there an opportunity to identify these courses, bundle them into a short-term certificate, and then scaffold that STC into a one-year certificate which leads into an associate degree program? How can we credentialize the courses that students take before leaving, and provide a pathway and incentive for further credential attainment?
* The department is encouraged to review the MAT requirements in its programs – there was some discussion with the Review Team that students who are in the programs planning to find work immediately after graduating may not need the same MAT course as those who are planning to transfer. Should some flexibility in MAT requirements be built in the degree program curricula?
* The benefits of the internship course are clear, but it is only an elective. The department is encouraged to investigate the possibility of allowing students to choose either the capstone or the internship at the end of their program, or look at other ways of more fully incorporating the internship course into the degree program.
* Finally, Sinclair has recently begun to more fully exploit social media with informative, entertaining videos that have attracted a great deal of attention. Could this be an option for the department to recruit more students? What other self-marketing approaches can the department develop, given the scarcity of traditional marketing resources at Sinclair?

**OVERALL ASSESSMENT OF DEPARTMENT’S PROGRESS AND GOALS:**

While this department is not resourced at the level it once was, members of the department have ensured that the high level of quality and commitment to students is maintained. The commitment to students, the willingness to go the extra mile, the investment of time and effort in advising and mentoring students, the intentionality behind the hands-on approach in the department’s courses, all are highly indicative of a laser beam focus on preparing students to the highest degree possible for transfer or employment. Strong leadership and extra effort by all in the department make a tremendous difference in the lives of the students they serve.

This is a reflective department, one that is always examining its practices to improve the learning of its students. The efforts to increase already-high success rates in OPT 1100 are just one example of this. The general education and program outcome assessment work this department is doing is superb, and can serve as an example to other departments.

Declining enrollment is a challenge for this department – but this is also a thoughtful, deliberative group of faculty who are already implementing strategies to generate enrollment. Recruitment of students will need to be a priority – no small task for a department already stretched somewhat thin. The department’s characteristic thoughtful, deliberative approach will need to be employed to focus resources on those strategies most likely to recruit additional students, while maintaining the high level of quality and strong relationships with existing students that the department has always had.

The Review Team would like to thank this department for all that it does for its students in the face of sometimes substantial challenges, and publicly express its admiration for the work it has done in the past and will continue to do in the future.

**INSTITUTIONAL OR RESOURCE BARRIERS TO THE DEPARTMENT’S ABILIYT TO ACCOMPLISH ITS GOALS, IF ANY:**

* The local perception that there isn’t a future in jobs related to manufacturing is a challenge several departments at Sinclair face, and is something that will not be solved by marketing efforts by Sinclair alone. What opportunities are there for Sinclair to collaborate with local industry and organizations such as the Dayton Development Coalition to develop a comprehensive, wide-ranging strategy for changing this perception in the Dayton region?
* The lack of full-time tenure track faculty in this department is a challenge – what other faculty from other departments could be re-purposed to help not only teach courses in this department, but also to help with outreach to recruit students to this department? Are there faculty outside the department who could be given reassigned time or otherwise incented to help increase the resources available to this department?
* This is not the only department where there may be a communication gap between Academic Advising and the department – while the department works well with Academic Advising, there appears to be a lack of understanding regarding what its programs are about. How can we as an institution encourage more shared understanding between departments and the Advisors who work with their students, and in many cases direct students into their programs?
* Marketing is a challenge for many departments, but Sinclair’s resources are limited in this regard. How can Sinclair help its academic departments to learn to market themselves? How can social media be employed in ways that are effective without flooding the internet with excessive amounts of Sinclair-related material? What training and direction can we give departments in developing their own marketing approaches? Can the Grants Office play a role in helping departments secure additional resources that could be used to market programs?