**Department/Program Review Summary**

**2019-2020**

**Department:** 0567-Architectural Technology/0553-Civil Engineering Technology/0565-Construction Management Technology/0554-Energy Management Technology

**Date of Review:** October 1, 2020

**Review Team Members and Titles:**

Kathleen Cleary, Interim Provost

Jennifer Kostic, Associate Provost

Jared Cutler, Assistant Provost of Accreditation and Assessment

Cari Gigliotti, Associate Professor, Chemistry, Divisional Assessment Coordinator

Stephen L. Sharp, FAIA, NCARB, McCall Sharp Architecture

Janice Mains, Chair of Nursing and Assistant Dean of Health Sciences

John Porter, Professor, Automotive Technology

Cole Rodesky, Academic Advisor, Academic Advising

Karla Knepper, Director, Academic Advising

**Department Members Present:**

Anthony Ponder, Dean, Science, Mathematics, and Engineering

Eric Dunn, Assistant Dean of Science, Mathematics, and Engineering

Charlie Setterfield, Chair, Architectural Technology/Civil Engineering Technology/Construction Management Technology/Energy Management Technology

Rebecca Palen, Program Coordinator, Engineering Technology Design & Civil Engineering Technology

Faculty:

Steven Ford, Annual Contract Faculty, Built Environment

Robert Gilbert, Professor for Civil Architectural Technology

Staff:

Nina Allen, Administrative Assistant, Architectural Technology, Civil Architectural Technology, Engineering Technology Design, Environmental Engineering Technology and Mechanical Engineering Technology

**Commendations:**

* This is a department that maintains close relationships with local industry, and does an outstanding job of aligning its curriculum - and the learning experiences it provides to its students – with industry expectations. These relationships are absolutely crucial for the department’s students as they enter the work force, and the department really serves its students well in that respect.
* This is also a department with a remarkably student-centered orientation. It is a department that adapts its activities and processes to students, rather than expecting the reverse. For example, the department’s exceptional work identifying Math courses as a barrier to student completion and working to find a solution illustrates a willingness to be flexible and rely on student feedback and data in making decisions. This can also be seen in the department’s approach to course scheduling, and its willingness to change the sections meeting times based on student needs.
* The department’s most recent ABET accreditation results are particularly impressive, obtaining initial accreditation for Architectural Technology and Construction Management Technology getting the maximum accreditation period and no deficiencies, and Civil Engineering Technology getting the maximum accreditation period, no deficiencies, and a strength (the integrated capstone). Maintaining ABET accreditation is a heavy lift, and the fact that the department does it so well speaks to the hard work and dedication of the faculty and the high quality of the programs they have developed.
* The department’s Integrated Capstone provides a remarkable opportunity for its students to collaborate with students in other areas, address real world problems, and make connections with employers. Its interdisciplinary nature is one of the best examples of interdepartmental collaboration on campus, and helps prepare students for working in teams with professionals from other areas when they get in the workplace. The presence of employers at the Capstone expo and dinner provides a unique opportunity for students to make key connections. Moreover, it is especially impressive the department uses the Capstone expo as an opportunity to get assessment data from local employers – few sources are as informative as local employers in terms of helping us know how well our students are meeting program outcomes. There are many facets of the Integrated Capstone that are truly remarkable, and Sinclair can be proud that faculty in the department have been involved in this for over a decade.
* The Review Team was extremely impressed with the enrichment series events that the department offered for Sinclair students and community members. Giving students and members of the community the opportunity to hear local architects, contractors, Sinclair alumni, and Sinclair faculty can have a great impact on orienting them to their chosen field. The department displayed a great deal of foresight in making these events available to professionals seeking continuing education opportunities, both for continuing education opportunities for local employees and chances for students to network.
* Overall, the community outreach of this department is truly impressive in terms of the enrichment series events, service learning projects, involvement with professional organizations, and other community-focused efforts. The department also benefits from strong connections with local industry through its Advisory Committee. This is a department that builds connections outside of Sinclair, and recognizes how crucial those external connections are to the success of its students.
* The department has demonstrated a tremendous amount of vision in its K-12 outreach, recognizing the importance of maintaining a pipeline of incoming students. Not only has the department developed relationships with local public schools such as Stivers High School and Warren County ESC, it has also been very innovative in developing enrichment activities targeted at home school high school students. The department has really been thinking ahead in terms of recruitment by making these connections with K-12 schools and students, and no doubt has seen dividends in terms of enrollment.
* The Review Team was also impressed with the department’s participation in the NSF-funded Advanced technological Education (ATE) project: BEprep. Competitive grants are hard to come by, and it is a testament to the quality of the department’s programs that they were awarded this grant.
* The department does an outstanding job of collecting assessment data and closing the assessment loop. As noted earlier, few sources of assessment data are as powerful as local employers, and the department has done an outstanding job of leveraging the Capstone expo to get program assessment data from employees. In addition, the department displays a keen understanding of the true purpose of assessment as faculty meet at the end of each spring semester to review common assessments, identify trends, and formulate a strategy for improved common assessment. This approach to closing the assessment loop is remarkable, but the department appears to simply view it as part of what they do. This approach to the use of assessment data is more impressive – and less common - than they realize. Faculty in this department are excellent practitioners of assessment.
* The department also deserves commendation for its international partnership with a school in Denmark. At a time when understanding the importance of the global economy is more crucial than ever, the department is providing its students with a unique opportunity to develop relationships with and learn from colleagues in another country.
* Serving the adult population that is seeking additional education has become increasingly important in recent years, and the department has become extremely adept at accommodating the needs of this crucial population. The development of certificates tailored for mid-career professionals, with a flexible approach to scheduling to accommodate their schedules, is particularly praiseworthy.
* The Review Team was extremely impressed with the work the department is doing around transfer and articulation, working to develop new agreements, revamping curriculum to align with the transfer programs, and in general going the extra mile to make transfer for its students more seamless and efficient. The curriculum work that has been done to facilitate transfer of students to Miami University is particularly impressive.
* This department is continually reviewing course and program outcomes, course and program names, and other aspects of its programs to align with schools of architecture and trends in local industry. This is a department that does an exceptional job of keeping up in some ever-changing fields, and one that does a great job of keeping a finger on pulse of what is happening in industry.

**Recommendations for Action:**

* While COVID interrupted the monthly enrichment series events, the Review Team strongly encourages the department to find ways to resume this initiative, perhaps by Zoom if necessary. This is an excellent initiative that should be continued.
* The department does an outstanding job of closing the assessment loop, and is encouraged to work with the Division Assessment Coordinator to ensure that the excellent assessment work that is being done gets properly documented. The way the department uses assessment data should be shared as an example to other departments, and faculty should be prepared to present what they do with their assessment results in CTL workshops and other venues across campus. The department is strongly encouraged to meet with the Division Assessment Coordinator to discuss how the excellent work that they are doing can be captured and documented.
* The department has done some exploration on methods to retain students to credential completion. The department is strongly encouraged to continue this work, and move beyond exploratory research into implementation of strategies designed to help more students stay in their programs and reach credential completion. In the self-study the department discussed using a cohort approach, and is encouraged to continue moving in this direction. The department is also strongly encouraged to contact the Completion Office and explore whether the EAGLE program might be appropriate for its students.
* Along these same lines, since there is no minimum credential in some occupations in the Built Environments department, the department should continue to explore stackable credentials that allow students to complete short-term certificates to ensure that if students leave the program early they already have a short-term credential, which may also serve to encourage students to complete further credentials. Can the first term, or the most commonly completed courses before students leave for employment, be made into a short-term certificate, which can then build into a one-year certificate and eventually a degree? Is there already a short-term certificate that does this, and how many students earn it before dropping out of the program? What can we do to better ensure students who leave their program early have a credential of some kind?
* The department is also encouraged to continue to work on credentials and scheduling that address the needs of adult learners. Some excellent work has been initiated, and this recommendation is designed to encourage the department to continue to pursue the efforts it already has underway in this regard.
* The Review Team recommends that the department continue its work on transfer and articulation agreements, expanding the number of articulation agreements that will allow transfer for students who have that educational goal. The department should continue its curriculum modification work that will allow students better transfer opportunities.
* The department is also encouraged to look at more working/learning relationships like FESTO, to explore apprenticeship models and arrangements with companies where they help support employee training, an arrangement designed for upskilling employees for companies so there is guaranteed employment with credential completion. Are there additional contacts with Associated General Contractors and other industry groups that could be made to explore these relationships, and/or provide input into program offerings?

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

The most important message that the Review Team could pass on to this department would be to keep doing what you are doing. Overall enrollment and completion numbers need to rise, but the department is working hard to try to make this happen. This is a relatively small department with a large number of very impressive accomplishments – it is not clear to the Review Team exactly how so much gets done, but the department is commended for its current level of dedication and commitment to its students and the local community. The department’s commitment to its students is truly exemplary – throughout the self-study it was apparent that the department keeps students at the heart of all of the decisions it makes, and it is hoped that the department will continue its student-centered orientation in the future.

While there was some discussion of marketing needs with the Review Team, there was a much greater focus on the way that the department works to market itself through a multitude of outreach activities, including monthly enrichment series events, various outreach activities to local high schools and home schooled high school students, and through its heavy involvement with professional organizations. The department is doing an effective job of making sure it is visible – and highly valued – by the community and local employers. The department does an exceptional job of maintaining strong ties to local industry, and this is invaluable to its students.

The department also does an outstanding job of providing students with opportunities to work and learn with internships, apprenticeships, and service learning – and in particular with the interdisciplinary capstone. All of these efforts aid students in developing a resume/portfolio that goes beyond simply having a degree, and produces students who are more effectively prepared than they would otherwise be.

This is a department that does a great job of staying current, and knowing exactly what is happening in the many fields they oversee. It is helped in this regard by having strong connection with its Advisory Committee. ABET accreditation also plays a role in helping this department stay current and maintain a strong reputation for quality. It is also a department with an exemplary assessment program, one that reviews assessment on a regular basis and appears to understand what the purpose of assessment truly is – to better serve students. In fact, that appears to be the overriding consideration in all that the department does. Because above all else, what the Review Team took away from the self-study and the meeting with the department is that its faculty are truly dedicated to its students, and invested in providing them with the best education and preparation possible.

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

**Accomplish Its Goals, if any:**

* The department mentioned space as an issue, with concerns about faculty not having offices in close proximity to each other, and concerns about redeployment of the space in the Energy Lab. The department should work with the dean to be sure these concerns are known to college leadership and can be addressed.
* The department’s concerns with the Eaker Street facilities should be mentioned in particular. Leadership at Sinclair is aware of issues surrounding this building, and are seeking resolution to the degree that current circumstances permit.
* There is probably work that should be done in terms of building awareness of the Built Environment department throughout campus – it is only relatively recently that this department was carved out of a larger one and became a separate entity. It is important for the department to raise awareness of its existence and forge an identity here on campus. The department should consider doing a covideo presentation highlighting the field and program, which could be shared on social media.
* Succession planning as faculty retire is an issue all departments face, and one that requires forethought in terms of departments making the case for future faculty resource allocation as their faculty retire.
* Like many departments at Sinclair, this one must be continuously mindful of how employment trends impact its enrollment and prospects for its graduates – what kind of forecasting might help them? What college resources can assist departments in this area? Sinclair has economic modeling and occupational projection resources – how can these be better shared with departments such as this one?