1.3 - Academic Program Design

Academic Program Design focuses on developing and revising programs to meet stakeholders' needs. The institution should provide evidence for Core Components 1.C. and 4.A. in this section.

1P3: PROCESSES

Describe the processes for ensuring new and current programs meet the needs of the institution and its diverse stakeholders. This includes, but is not limited to, descriptions of key processes for the following:

- Identifying student stakeholder groups and determining their educational needs (1.C.1, 1.C.2)
- Identifying other key stakeholder groups and determining their needs (1.C.1, 1.C.2)
- Developing and improving responsive programming to meet all stakeholders' needs (1.C.1, 1.C.2)
- Selecting the tools, methods and instruments used to assess the currency and effectiveness of academic programs
- Reviewing the viability of courses and programs and changing or discontinuing when necessary (4.A.1)

1R3: RESULTS

What are the results for determining if programs are current and meet the needs of the institution's diverse stakeholders? The results presented should be for the processes identified in 1P3. All data presented should include the population studied, response rate and sample size. All results should also include a brief explanation of how often the data is collected, who is involved in collecting the data and how the results are shared. These results might include:

- Summary results of assessments (include tables and figures when possible)
- Comparison of results with internal targets and external benchmarks
- Interpretation of results and insights gained

1I3: IMPROVEMENT

Based on 1R3, what process improvements have been implemented or will be implemented in the next one to three years?

Responses

1P3a. Identifying student stakeholder groups and determining their educational needs

The College's primary process for identifying student stakeholder groups and determining their educational needs is its onboarding process. Beginning with the admissions application, student

needs are determined through indicators such as high school grade point average, ACT test scores, program-specific requirements, and placement exams for mathematics and reading/writing courses. Advisors assist students in choosing a program of study that meets their educational needs and goals. Students may self-identify statuses (such as first-generation, low income, veteran, or disabled) to determine additional educational needs during the onboarding process or at any time during their LCCC enrollment. Secondarily, the scholarship application process also identifies student groups and determines students' educational needs, based on such indicators as single parent status, athletic recruitment, and residency status. Finally, the College employs a variety of processes designed to determine and meet students' educational needs based on enrollment status (full-time, part-time, online, etc.) and stakeholder subgroups. Figure 1P3-1 shows different student stakeholder sub-groups, their expectations, and methods to determine their educational needs.

These processes result in the College serving diverse student groups, as befits an open-access institution. LCCC students represent a wide spectrum of socio-economic status, age, cultural background, parenthood status, race, employment status and educational attainment. LCCC actively seeks to engage diverse groups of prospective students through recruiting events hosted by state and local agencies, including Wyoming Department of Workforce Services, F.E. Warren Air Force Base Education Center, and the City of Cheyenne (**1.C.1, 1.C.2**).

Student educational needs information is communicated and evaluated through a collaborative process to ensure that relevant areas (e.g., program faculty, advisors, and student services staff) have the resources to meet those needs. The College is in the process of selecting a student success technology solution, such as Civitas or EAB Navigate, to facilitate information-sharing, to provide predictive analytics to strengthen stakeholder need determination, and to establish a systematic process to analyze student need information.

1P3b. Identifying other key stakeholder groups and determining their needs (1.C.1, 1.C.2)

LCCC's process to identify other key stakeholder groups and determine their needs aligns with and promotes the College's mission, which is, in part, "to enrich the communities we serve through activities that stimulate and sustain a healthy society and economy." (**1.C.1**) Through its mission components, LCCC has identified three primary stakeholder groups: other educational institutions, the external community, and governmental entities.

The key process for determining stakeholder needs uses their input through a variety of mechanisms, including articulation meetings and agreements with regional higher educational institutions. Stakeholder input is also gathered through program advisory boards, comprised of community and educational partners, business and industry representatives, and/or external subject matter experts (SMEs); accrediting bodies; and professional and community organizations. Additionally, the College hosts a variety of forums, including face-to-face needs analysis meetings, focus groups, community events, and participation in state and local community development initiatives. Figure 1P3-2 summarizes other key stakeholder groups, their expectations, and the processes used to determine their needs (**1.C.2**).

1P3c. Developing and improving responsive programming to meet all stakeholders' needs (1.C.1, 1.C.2)

LCCC's process for developing responsive programming to meet all stakeholders' needs is established by its [Program Development and Approval Procedure](). LCCC's process adheres to the Wyoming Community College Commission (WCCC) program criteria. (The WCCC has statutory responsibility to approve all programs at Wyoming community colleges and ensure that programs align with the interests of the State of Wyoming). The program development process includes (1) the identification of the stakeholder need to be addressed through the processes described above, (2) the establishment of program goals and student learning outcomes (competencies), (3) research on similar programs in the region as well as across the nation to inform the structure and operation of the proposed program, (4) the identification of resources that will be required in the program, (5) submission of the program proposal to internal and external groups for approval, and (6) implementation of the program.

The College's processes for evaluating and improving programming to meet stakeholder needs are embedded in the related program review process, which is governed by [Academic Program Review Procedure 10.2P](). Through this process, faculty demonstrate their program's [Response to Stakeholder Needs]() and describe relevant continuous improvement strategies. The evidence derived from, and actions taken as a result of program review, ensure that academic programs remain relevant and effective towards meeting the stakeholder needs and contribute to the long-term sustainability of the College.

As an open access, comprehensive community, LCCC's role is to meet the needs of its service area, while ensuring its students can successfully navigate an ever-changing, diversifying community. Through the engagement of stakeholders, in both program development and improvement as described above, LCCC ensures that its programming provides equitable opportunities for all to participate, and more importantly to succeed, both in the classroom and after graduation. For specific examples of this in action, please see section 1P2e, designing co-curricular activities (**1.C.1, 1.C.2**).

1P3d. Selecting the tools, methods and instruments used to assess the currency and effectiveness of academic programs

LCCC's processes for selecting the methods and instruments used to assess the currency and effectiveness of academic programs incorporate best practices, the College's Key Performance Indicators (KPIs), and the program review process, while leveraging tools and systems adopted at the state level. These processes support the College's strategic plan, which includes the development of technology-based mechanisms to capture and analyze assessment data to inform continuous improvement of teaching practices.

Best practices are adhered to in the collaborative processes used to choose other tools to assess the currency and effectiveness of academic programs. Subject Matter Experts (SMEs) are consulted to identify effective tools, and faculty and staff participate in professional development opportunities to stay current with tools, methods, and instruments that are available for academic effectiveness assessment. Current tools include Canvas and Campus Labs modules (referenced

above) for data collection and Tableau dashboards that enable LCCC to make impactful, evidence-based decisions.

Each KPI has multiple performance measures. Measure results are analyzed annually to produce an institutional report card grading the College's annual performance. The companion annual program analysis incorporates applicable KPI measures (e.g., graduation and course success rates) disaggregated at the program level to evaluate individual program performance. Each program-level measure result is assigned a quintile ranking; measure rankings are aggregated to produce overall performance rankings for each program.

Through the program review process, faculty must articulate their program's processes for designing and maintaining curriculum, including how they maintain currency. Faculty also analyze the program analysis results (KPIs) and develop improvement strategies. Peer-reviewers rate these sections using a rubric that provides program-specific scores on sustaining currency and effectiveness of programs (**4.A.1**).

1P3e. Reviewing the viability of courses and programs and changing or discontinuing when necessary (4.A.1)

LCCC's process to review the viability of courses and programs and to change or discontinue when necessary is established by the Academic Standards Committee (ASC) Procedure. This predominately faculty committee promotes and maintains high academic standards that lead to student success in courses and programs at LCCC consistent with its overall mission. Specifically, the ASC oversees the development, review, modification and discontinuation of programs and curricula, as well as the assessment of student learning in a manner that recognizes the interconnected nature of these functions within the college.

Additionally, the College uses a combination of evaluative processes, program review and annual program analysis data, to test the viability of programs. For example, in 2017-2018, the dean of Business, Agriculture, and Technical Studies discontinued the Homeland Security and Process Technology programs based on weak performance on program review and the Academic Program Prioritization Method. The prioritization method relies heavily on program-level KPI measures and produces a scatter plot to represent overall program health. The discontinued programs were in the lower left quadrant of the scatter plot, indicating low value (program demand) and low efficacy (effectiveness and efficiency). Included in the decision to discontinue these programs was a review of industry trends, consultations with industry partners and a large local employer, as well as an analysis of enrollment numbers (**4.A.1**).

1R3a. Summary results of assessments (include tables and figures when possible)

Results of the 2016-17 program analysis (the most recent available) ranked 48 programs based on their performance against four key performance areas: participation, success, learning environment, and efficiency. The analysis produces percentile scores for each program. The IR program analysis dashboard (Figure 1R3a-1) shows specific measure results at the institutional level (filterable by program). A review of these results indicates that 79.10% of students were successful overall in all courses during academic year 2017-2018, a 0.56% increase over 2016-

2017. The number of declared majors during 2017-2018 was 6,152, an increase of 60 over the 2016-2017. The average number of credits to completion decreased by 1.99 credits for 2017-18 graduates compared to 2016-17; the average time to completion in years remained level for the last three academic years with little variation for the same cohort.

The [Academic Program Review Rubric](#) presents the overall average peer-review ratings of the eight programs that were reviewed during for the 2017-2018 program review cycle. The eight programs averaged 3.02 on a four-point scale for section II.A.2a, which addresses how programs sustain rigor and relevancy in the curriculum and respond to stakeholder needs. The institutional target for the program review rubric is 3.00. In section II.C.3a, which addresses how programs use stakeholder feedback to adjust curriculum, the average score was 2.97. Finally, in section II.C.3b, examples of how gathered stakeholder feedback was used to improve or revise the program's curriculum since the previous review, the average rating was 3.28.

1R3b. Comparison of results with internal targets and external benchmarks

The 2017-2018 program analysis dashboard (tableau) reveals some comparative data for the seven Wyoming community colleges (see example [number of completions by college](#)). LCCC had the most completions among the colleges in 2017-18 with 812.

For the 2016-2017 academic year, [eight programs were analyzed](#) using the program review process. Performance is based on program analysis using the KPI indicators, which uses a five-point scale where one is the lowest quintile rating and five is the highest. Programs that have section averages below three, typically are expected to analyze those areas for improvement.

Regarding peer-review rubric ratings for program review, an overall average of 3 is the internal target for each program review section. Based on the results presented above (2017-18), the College met this target for sections II.A.2a and II.C.3b but fell short for section II.C.3a.

The peer-review rating system is locally developed, so external benchmarks are unavailable. The College will incorporate additional applicable benchmarks from the institutional KPI system in the future.

1R3c. Interpretation of results and insights gained

LCCC's annual program review process measures the effectiveness of its academic programs against four overall objectives:

1. Generate data to measure how well academic programs are contributing to the achievement of the college's mission.
2. Establish a cycle of planning and reassessment to ensure continuous improvement in the College's programming.
3. Collect objective input and processes to guide future planning for improvement.
4. Develop actionable plans for program improvement.

In December 2017, the third [Academic Program Review Annual Report](#) (pg. 3) was released to the Board of Trustees (BOT). The report confirmed the College was making strong progress toward its program review objectives. The faculty's capacity to provide meaningful self-evaluation has increased, and the feedback given to the program review process is becoming more robust with each cycle. In addition, faculty have embraced the relationship between assessment planning, strategic data gathering, and action planning, and now see these processes as mutually supportive in achieving the College's mission.

1I3. Based on 1R3, what process improvements have been implemented or will be implemented in the next one to three years?

One of the more significant improvements for processes to manage academic program design was the implementation of a new LCCC program review process in 2014-15 and a subsequent revision of the self-study template by faculty in spring 2016. The template includes academic standards expected of all programs that include how responsive programs are to stakeholders when designing their curriculum and how programs relate to their stakeholders to sustain currency and rigor of the curriculum. When programs discover program weaknesses from reviews, they establish action plan goals that strengthen service to stakeholders for added viability. A 2015 Program Development and Approval Procedure, 2.3.1P formalized program responsiveness to stakeholder needs in the design of new programs. The 2017 scatter plot data presentation improved the evaluative analysis of all academic programs to better determine their viability; it relies on the characteristics of effectiveness, efficacy, and value. The College has recently reviewed two vendors (Education Advisory Board-EAB and Civitas) and is considering purchasing a student-facing platform offering scalable guidance to each student with online advising that offers real time interactions with students and early alert data. These data would provide another access point for learning stakeholder needs and improve the timeliness of responding to those needs by adjusting programming accordingly.