**E403 Statement Writing Examples**

**EXAMPLES**

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**GENERAL REVIEW**

Institutional Summary

Sample University (SU) is a comprehensive state university comprised of seven colleges. The College of Engineering and Applied Science (CEAS) offers three engineering programs, all of which were evaluated during this visit. The college has 497 students, 48 full-time faculty members, and 14 adjunct faculty members. The college produced 104 graduates in the 2020-21 academic year. Faculty members are active in the scholarship of both teaching and research. SU students are largely in-state students, with about 10 percent enrolled from out-of-state and five percent from other countries. A substantial fraction of students transfer to the CEAS from local community colleges. Eight months before the EAC of ABET accreditation visit, the college leadership was assumed by a new dean who was hired after a two-year search.

The following units were reviewed and found to adequately support the engineering programs: mathematics, physics, library, career services, registrar, and admissions.

Institutional Strengths

1. The CEAS has exceptional computing facilities that are managed and maintained from within by the college's Office of Engineering Computing. These facilities provide state-of-the-art hardware and software that enhance student learning and faculty and student research. Graduates are able to enter the workforce with extensive computing experience, a quality desired by many employers.

2. The Office of Student Services and Career Development is highly successful in placing the graduates of the CEAS. Important services provided by this office include career counseling, workshops on interviewing readiness, and training in study skills. The office uses JOBTRAK to assist with referrals and job placement. These activities help the individual engineering programs achieve their objectives in the successful job placement of their graduates.

3. The institution recruits high-caliber students and is successful in helping these students sustain high levels of achievement. Sample University ranks high nationally in the number of its students who receive prestigious scholarships and fellowships (Rhodes, Goldwater, NSF, and others). The success of these students enhances the academic reputation of the institutions and the programs in which these students studied.

Civil Engineering

B.S. Program

Program Criteria for Civil and Similarly Named Engineering Programs

Introduction

The Civil Engineering (B.S.) program emphasizes the areas of transportation, structures, geotechnical engineering, environmental engineering, and pavements and related materials. An environmental engineering option is available as an elective. The program has 112 students, 12 faculty members, six adjunct faculty members, and two professional staff members who advise students from their sophomore year through graduation. The program produced 24 graduates in the 2020-21 academic year. Community college transfer students and part-time students comprise about 50 percent of the enrollment in the program.

Program Strengths

1. Faculty members have strong ties to local civil and environmental engineering firms. There is also close interaction with the State Department of Transportation, which is located in the same community as the university. These interactions have led to industry-sponsored student projects, involvement of practicing engineers as adjunct faculty members, consulting opportunities for the faculty, and active participation by industrial constituents in the program’s evaluation processes.

2. The student chapter of the ASCE is a strong, active group that allows students to participate in the concrete-canoe contest and steel bridge-building activities. A majority of students is involved in these activities; last year two concrete canoes represented the program at the regional contest.

3. Esprit de corps among faculty members and students is exceptional. All faculty members take turns hosting monthly “fireside chats” with the students. Practicing engineers often participate in these meetings, and industrial sponsorship provides refreshments. The faculty made use of this feedback over the last three years to improve the program.

Program Weaknesses

1. Criterion 4. Continuous Improvement This criterion requires that the program regularly use appropriate, documented processes for assessing and evaluating the extent to which the student outcomes are being attained. It further requires that the results of these evaluations be systematically utilized as input for the continuous improvement of the program. While the program has an appropriate process for assessing student outcomes, there appears to be very limited use of the results to improve the program. For example, it was noted in the evaluation of student outcome (1) that some students had a weak understanding of matrix mathematical operations at the beginning of the structures course, CE343, Structural Analysis. There is no documentation of an effort to strengthen the mathematical preparation for this course. Additionally, no evidence was presented that indicated there was a process to take actions to improve the program. When there is no systematic consideration of results from the evaluation of student outcomes to improve the program, continuous improvement of the program is uncertain. Thus, strength of compliance with this criterion is lacking.

* 30-day due-process response: The EAC acknowledges receipt of documentation describing plans to strengthen the prerequisite math course, MA245, Differential Equations, to improve student preparation for the structures course CE343, Structural Analysis. However, the planned course improvements were not yet implemented. In addition, it was not clear that the program has established a systematic process for using assessment and evaluation data as input for the continuous improvement of the program.
* Post 30-day due-process information: The EAC acknowledges receipt of documentation demonstrating that planned improvements to MA245, Differential Equations, the prerequisite math course to CE343, Structural Analysis, were implemented during the previous academic term. However, the documentation did not include evidence that the program has implemented a systematic process that uses evaluation of assessment data for continuous improvement.
* The program weakness is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation that evaluation of assessment data is systematically utilized as input for the continuous improvement of the program.

2. Accreditation Policy and Procedure Manual The Accreditation Policy and Procedure Manual (APPM) Section I.A.4 requires that programs represent their accreditation status accurately and without ambiguity. The statement on the departmental website is inconsistent with that contained in Section I.A.6 of the APPM and is associated with multiple programs offered by the department that are not accredited by the EAC. Review of the current university catalog indicates that publication of accredited status found in that document is in compliance with Section I.A.6. By not appropriately and consistently identifying the accreditation status of the program in all of its publications as accredited by the EAC of ABET as required by the APPM, the program is unable to clearly represent its accreditation status accurately and without ambiguity. Thus, strength of compliance with this policy is lacking.

* Seven-day response: The EAC acknowledges documentation of changes made to the departmental website related to accreditation status. This information will be considered in due process.
* 30-day due-process response: The EAC acknowledges receipt of documentation indicating that the website has been updated to reflect the appropriate statement concerning the program’s accreditation status and to remove the implication that other programs are accredited.
* The weakness is resolved. (Automatically generated by AMS)

Program Concerns

1. Criterion 1. Students This criterion requires that student performance be evaluated and that student progress be monitored to foster success in attaining student outcomes, thereby enabling graduates to attain program educational objectives. Student enrollments are increasing and a large percentage of the student population consists of transfer or part-time students. Since most of the core curriculum courses are offered only once per academic year, these students must be carefully advised to ensure that they stay on track to graduate. This is particularly problematic during the fall semester of the junior year. This issue was raised during both of the student interview sessions with the program evaluator. With such limited course offerings each academic year, successful student progress is attainable only through advising that takes into account each student’s prior record. The program has an advisor who handles advising of transfer students and part-time students, and there is no evidence that students have been adversely affected, the transfer and part time student advisor carries a heavy advising load and there is the potential that student advising could be affected by increased student enrollment.

This criterion also requires that student progress be monitored to foster success in attaining student outcomes. The computerized system currently used for course selection enrolls students in their courses for the upcoming term prior to the time they complete the courses in the current term. In some cases, students are taking courses in one term that are prerequisite to those for which they enroll in the following one. Thus there is the potential that students may not have passed courses that are prerequisite to the ones in which they have pre-enrolled and there is no process in place to notify the students’ advisors when this occurs. Although advisors are diligent in their efforts to properly advise students, there is the possibility that students may not have passed prerequisite courses for courses in which they are enrolled.

Because there is a single person advising all part-time and transfer students at a critical time in their academic careers and because there is the potential that students may in some cases fail prerequisite courses and remain enrolled in the subsequent courses, there is the potential that future compliance with this criterion could be jeopardized.

* 30-day due-process response: The program did not provide a response to the part of this shortcoming that addresses advising issues for transfer and part-time students. For the second part of the shortcoming, the EAC acknowledges receipt of a letter and attached university administrative forms indicating that changes in advisor notification software have been implemented and tested. These changes are fully implemented and the updated software is ready for use in the fall term. The part of the concern related to advising of transfer and part-time students remains unresolved.
* Post 30-day due-process information: The EAC acknowledges receipt of post due-process documentation that one additional advisor for part-time and transfer student has been hired to provide effective advising to these students.
* The program concern is resolved. (Automatically generated by AMS)

2. Criterion 6. Faculty This criterion requires that there be sufficient faculty to accommodate adequate levels of student-faculty interaction. The program has several adjunct faculty members who participate in teaching the culminating major design course. Students commented that they valued the contributions that these faculty members made to the course but found it difficult to contact them outside of class for questions. Lack of access to the adjunct faculty members outside the classroom has the potential to impact the adequacy of the program’s level of interaction with its students. Thus, future compliance with this criterion may be jeopardized.

* 30-day due-process response: The EAC acknowledges documentation that the program chairperson has reserved a small office for off-campus adjunct faculty members that will be used for scheduled office hours. The office will be open from 8:00 a.m. to 8:00 p.m. Adjunct faculty members will be requested to schedule at least two office hours per week. It was not clear from documentation provided that adjunct faculty established office hours as requested.
* The program concern is unresolved. (Automatically generated by AMS)

Electrical Engineering

BS Program

Program Criteria for Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs

Introduction

The Electrical Engineering (BS) program is the oldest and largest engineering program in the college. The program has 224 students, 20 faculty members, four adjunct faculty members, and two professional staff members who advise students from their sophomore year through graduation. The program produced 47 graduates in the 2020-21 academic year. Almost 60 percent of the electrical engineering students participate in the cooperative education program.

Program Strengths

1. The program has an outstanding faculty that is committed to developing a high-quality undergraduate program. Several faculty members have published textbooks that are widely used in electrical engineering curricula across the country. The faculty also demonstrates significant engagement in contemporary teaching methods in the classroom. Multimedia presentations are common in the electrical engineering courses. These various teaching strategies enhance learning opportunities for all students since students have different learning styles.

2. The program makes excellent use of the cooperative education program for assessment of student skills and abilities. Involvement by cooperative education program sponsors in providing feedback to the program on student skills and abilities is extraordinary. Assessment and evaluation of student outcomes are enhanced by including feedback from the cooperative education experience.

Program Weaknesses

1. Criterion 2. Program Educational Objectives This criterion requires the program to have published program educational objectives that are consistent with the mission of the institution, the needs of the program’s various constituencies, and the engineering accreditation criteria. It also requires that there be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program’s constituents’ needs, and the engineering accreditation criteria. It was not clear from the documentation provided that the program educational objectives are consistent with the needs of the constituencies of the program. The program lists its students, faculty, industrial advisory board, major employers, and alumni as constituencies. There is no evidence that any of these groups, aside from the faculty members, participated in the periodic review of the program educational objectives. Without involvement on the part of the program constituents in reviewing the program educational objectives, the program is unable to ensure its program educational objectives are consistent with the needs of its various constituencies. Thus, strength of compliance with this criterion is lacking.

* 30-day due-process response: The EAC acknowledges receipt of a plan to include students and alumni in industrial advisory board meetings during which program educational objectives are to be discussed. This process has apparently not yet been implemented.
* Post 30-day due-process information: The EAC acknowledges receipt of minutes of a recent industrial advisory board meeting. While the minutes note an agenda item related to the program educational objectives, there were no details of any discussion about whether or not the program educational objectives actually met the need of the program’s constituents.
* The program weakness is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates further documentation indicating that the program educational objectives reflect the needs of the program’s various constituencies and that the process for their periodic review involves program constituencies.

2. Criterion 5. Curriculum This criterion requires the curriculum to culminate in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints. While the major design projects developed in EE480, Senior Design, are significant and require a high level of knowledge and synthesis, they appear to be lacking in the consideration of multiple realistic constraints. With no intentional exposure to incorporating multiple realistic constraints in the culminating design experience, student preparation for engineering practice is uncertain. Thus, strength of compliance with this criterion is lacking.

* 30-day due-process response: The EAC acknowledges receipt of a description of a design project incorporating realistic constraints that has been proposed by members of the Industrial Advisory Board. A subcommittee of the advisory board will advise the design instructor on future design projects. No samples of student design projects that include multiple realistic constraints as described for new projects were provided to demonstrate implementation of the more robust projects.
* The program weakness is unresolved (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation of student work demonstrating that realistic constraints are incorporated in the major design experience.

3. Criterion 7. Facilities This criterion requires that laboratories be adequate to support attainment of the student outcomes and to provide an atmosphere conducive to learning. It further requires that modern tools, equipment, computing resources, and laboratories appropriate to the program be available, accessible, and systematically maintained and upgraded to enable students to attain the student outcomes and to support program needs. A tour of the junior-level laboratory indicated a general shortage of modern digital equipment. The students interviewed indicated that some of the equipment called for in two of the experiments in EE363, Signals Processing, had to be "borrowed" from one of the faculty research laboratories. Laboratories that lack all required equipment to support required student work degrade an atmosphere conducive to learning and hinder full attainment of student outcomes. Thus, strength of compliance with this criterion is lacking.

* 30-day due-process response: The program did not provide a response to this shortcoming.
* The program weakness is unresolved (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates evidence that sufficient modern equipment has been provided to support the laboratory experiments.

Program Concern

1. Criterion 8. Institutional Support This criterion requires that resources be sufficient to acquire, maintain, and operate infrastructures, facilities, and equipment appropriate for the program. Equipment maintenance and modernization do not appear to be accomplished on a routine and proactive basis. As a result, laboratory facilities are not always functional. Students often work in laboratory teams that may be too large for each student to have a consistently meaningful hands-on learning experience. Although it appears that the criterion is currently satisfied, there is the potential that laboratory facilities may degrade so that future compliance with the criterion may be jeopardized.

* 30-day due-process response: The program did not provide a response to this shortcoming.
* The program concern is unresolved. (Automatically generated by AMS)

Mechanical Engineering

B.Eng. Program

Program Criteria for Mechanical and Similarly Named Engineering Programs

Introduction

The Mechanical Engineering (B.Eng.) program is a traditional program that prepares its undergraduates for careers in the thermal, manufacturing, and mechanical systems areas. The program has 161 students, 16 faculty members, four adjunct faculty members, and two professional staff members who advise students from their sophomore year through graduation. The program produced 33 graduates in the 2020-21 academic year.

Program Strengths

1. The program has a large endowment that provides discretionary funds for curriculum and research development both for department faculty members and for visiting scholars. A portion of this endowment has been used to support the Research Program for Undergraduates through the purchase of research equipment and for financial support of the student and faculty participants. This endowment has contributed to student participation in research.

2. The program’s students are recruited from the top five percent of their high school classes and have exceptional SAT and ACT test scores. They demonstrate an exceptional work ethic and are enthusiastic about their program. Many of these students’ senior projects have been nationally recognized thus enhancing the reputation of the mechanical engineering program.

Program Deficiencies

1. Criterion 3. Student Outcomes This criterion requires that the program have documented student outcomes that prepare graduates to attain the program educational objectives. The engineering accreditation criteria define student outcomes as outcomes (1) through (7) plus any additional outcomes that maybe articulated by the program. It is not evident from the list of the program’s student outcomes that all components of the (1) through (7) student outcomes are included in the program-defined outcomes. In addition, there was no information provided in the self-study report describing how the program’s student outcomes prepare graduates to attain the program educational objectives. Thus, the program is not in compliance with this criterion.

* 30-day due-process response: The EAC acknowledges receipt of a document describing a plan to map the program-defined student outcomes to student outcomes (1) to (7) and develop documentation to demonstrate that the student outcomes are preparing graduates to attain the program educational objectives.
* The program deficiency is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates information demonstrating that the program has documented student outcomes that prepare graduates to attain the program educational objectives and that these student outcomes include all components of student outcomes (1) through (7).

2. Criterion 7. Facilities This criterion requires that laboratories and associated equipment be adequate to support attainment of the student outcomes and to provide an atmosphere conducive to learning. It also requires that modern tools, equipment, computing resources, and laboratories appropriate to the program be available, accessible, and systematically maintained and upgraded to enable students to attain the student outcomes and to support program needs. The mechanical engineering laboratories were found to be lacking in this regard. Inspection of laboratory facilities showed a general inadequacy and disrepair of equipment. The laboratory equipment for the thermal systems area is dated, insufficient, and, from the students’ perspective, lacks industrial relevance and the ability to provide sufficient intellectual challenges. General clutter was evident throughout the laboratories. This issue was cited as a concern during the previous accreditation visit, and substantial degradation in conditions since the previous review was evident. Without adequate facilities and without systematic maintenance of the laboratories to provide an atmosphere conducive to learning, the program cannot enable students to attain the student outcomes. Thus, the program is not in compliance with this criterion.

* 30-day due-process response: The EAC acknowledges receipt of a letter from the program chair indicating that the laboratory in question is being scheduled for maintenance work and repairs. The program chair has submitted a proposal describing the use of endowment funds to hire a temporary laboratory manager to supervise renovations and installation of new equipment. Endowment funds will be re-directed to the purchase of the necessary equipment for the thermal-systems experiments.
* The program deficiency is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation demonstrating the laboratory facilities have been improved, including actions taken to eliminate clutter and to update the equipment for the thermal-systems experiments.

3. Accreditation Policy and Procedure Manual Section II.G.6.b(1) of the APPM requires an examination of the facilities by the review team to ensure that the learning environments are adequate and safe for the intended purposes. Inspection of the facilities revealed safety hazards associated with unprotected rotating machinery and major leaks in the fluid mechanics experiments. Thus, the program is not in compliance with this section of the APPM.

* 30-day due-process response: The EAC acknowledges receipt of a letter from the program chair describing a consultation with the University Safety Office. The unprotected rotating machinery has been removed from the laboratory. A planned renovation will correct the leaks in the fluid mechanics experiments.
* The program deficiency is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation demonstrating that the safety hazards have been eliminated from the laboratory facilities.

Program Weaknesses

1. Criterion 1. Students This criterion requires that student progress be monitored to foster success in attaining student outcomes. The program must have and enforce procedures to ensure and document that students who graduate meet all graduation requirements. A review of the six student transcripts provided by the program indicated that two of the six students did not complete the required second course in calculus-based physics but took the non-calculus based PHY-131, College Physics, instead. These students apparently graduated without fulfilling all the program curricular requirements. Students who graduate from the program without fulfilling all program curricular requirements may do so without attaining the student outcomes that enable graduates to attain program educational objectives.

In addition, the computerized system currently used for course scheduling does not allow many freshman and sophomore-level students in the CEAS to complete their class schedules until two weeks prior to the beginning of the fall semester. The classes they need are often filled by that time. As a result, some students must take core courses out of sequence and/or on an overload basis, potentially jeopardizing their ability to successfully achieve some outcomes or meet all graduation requirements.

Because it is not clear that the program has in place an effective procedure for ensuring that students who graduate meet all graduation requirements, strength of compliance with this criterion is lacking.

* Seven-day response: The EAC acknowledges documentation from the institution that student schedules are completed three weeks prior to the fall semester, not two weeks as read in the exit statement.
* 30-day due-process response: The EAC acknowledges documentation, in the form of academic action forms, indicating a change has been made in course prerequisites that restricts enrollment in PHY-131, College Physics, so as to exclude mechanical engineering students. The necessary revision in the computerized registration system has already taken effect as documented by the program’s Description of Courses brochure. The EAC also acknowledges receipt of a letter and attached university administrative forms indicating that changes in class scheduling software have been implemented and tested. These changes are fully implemented and the updated scheduling software is ready for the fall registration process.
* The program weakness is resolved. (Automatically generated by AMS)

2. Program Criteria Program criteria for mechanical engineering programs require that the curriculum prepare students to work professionally in either thermal or mechanical systems while requiring topics in each area. The self-study report gave no evidence of coursework related to the thermal systems area. A review of course documentation and interviews with seniors revealed that only a very limited number of thermal topics are covered in the program’s curriculum. With only a limited amount of coursework related to the thermal area, the program is unable to provide exposure to thermal topics in a manner that meets the program criteria. Thus, strength of compliance with this criterion is lacking.

* 30-day due-process response: The EAC acknowledges receipt of a plan describing the development of three new courses related to thermal systems. Syllabi and proposed texts were provided. The courses are to be first offered in the coming spring semester.
* The program weakness is unresolved. (Automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation describing the improvements made to strengthen the curriculum in the thermal systems area.

**INTERIM VISIT**

Institutional Summary

Sample-IV University (SU) is a public, comprehensive state university comprised of seven colleges. The College of Engineering offers three engineering programs. The rocket engineering program was the only program evaluated during this interim visit. The college has 297 students, 20 full-time faculty members, and six adjunct faculty members. The college produced 60 graduates in the 2020-21 academic year. Faculty members are active in the scholarship of both teaching and research.

The following units were reviewed and found to adequately support the engineering programs: library, registrar, and admissions.

Institutional Strengths

**NOTE:**  The inclusion of strengths is not applicable for an Interim Report or Interim Visit.

Rocket Engineering

BS Program

No Applicable Program Criteria

Introduction

The Rocket Engineering (BS) program is housed in the Department of Aerospace Engineering. The program has 85 undergraduates, five faculty members and produced 15 graduates in the 2020-21 academic year. With positive results after a recent enrollment campaign, the program anticipates growth in the future.

Program Strength **(Note: strengths can be, but do not need to be, included)**

1. The program has a large endowment that provides discretionary funds for curriculum and research development both for department faculty members and for visiting scholars. A portion of this endowment has been used to support the Research Program for Undergraduates through the purchase of research equipment and for financial support of the student and faculty participants. This endowment has contributed to student participation in research.

Program Weaknesses

1. Criterion 1. Students *The previous review cited that the program lacked strength of compliance related to student advising concerning curricular advising and advisor accessibility. A transcript review showed that courses were often taken out of sequence and, in a few cases; a required course was not taken. These curricular variances were attributed to inadequate communication between the advisors and students*.

Advising support is now provided by five full-time faculty members, and the program has recently hired a professional advisor to improve the accessibility and operation of student advising. Transcript analysis showed that students took all prerequisite courses in the appropriate order. In addition, survey results showed that students find advisors readily accessible and advising communications helpful.

* The program weakness is resolved. (automatically generated by AMS)

2. Criterion 2. Program Educational Objectives *The previous review noted that the program had published program educational objectives that were based on the input of the program constituencies. However, the program’s process of periodic review of these objectives did not involve constituencies other than current faculty members*.

During the campus visit, the program director described a revised process that will, once executed, include all constituencies in the program educational objective review process. However, the revised process has not yet been implemented.

* Seven-day response: The EAC acknowledges documentation that a meeting of representatives from each of the program’s constituencies has been scheduled.
* 30-day due-process response: The EAC acknowledges receipt of a report describing results from the latest program educational objectives review. Representatives from all constituencies were involved in the review that resulted in revision of one of the objectives.
* The weakness is resolved. (automatically generated by AMS)

3. Criterion 4. Continuous Improvement *The previous review identified the absence of documented assessment results for student outcomes (4) and (7).. Although student grades in RE 101, Introduction to the Profession, were claimed as documentation and assessment of student outcome (4), no clear links between the student grades and the student outcome were established. No evidence was available that student grades used in this manner were an effective tool for identifying areas for improvement*.

The program has implemented an evaluation process in which student reports and presentations in two courses are scored for attributes demonstrating lifelong-learning skills (student outcome 7) and recognizing professional and ethical responsibility (student outcome 4). Faculty members and an industrial advisor do the scoring. The program has established a baseline for expectations on student performance in future evaluations.

* The program weakness is resolved. (automatically generated by AMS)

4. Criterion 5. Curriculum *The previous review cited that the major design experience was not clearly based on knowledge and skills acquired in earlier course work. Therefore, the students may not have been adequately prepared for professional practice. 30-day due-process information provided by the institution demonstrated that the program had developed strengthened guidelines for the major design experience to more thoroughly incorporate knowledge and skills from prior course work. However, the program did not provide evidence that these changes had been implemented. The program therefore lacked strength of compliance with this criterion.*

Review of student work on the major design projects provided evidence that students are incorporating knowledge and skills from earlier course work. However, the major design projects did not consistently incorporate appropriate engineering standards and multiple realistic constraints. Without adequate experience in application of design constraints and engineering standards, students in the program may not be adequately prepared for engineering practice. The program therefore lacks strength of compliance with this criterion.

* 30-day due-process response: The EAC acknowledges documentation indicating that major design project guidelines have been revised to incorporate appropriate engineering standards and multiple realistic constraints. However, the program did not provide evidence that these changes have been implemented.
* Post 30-day due-process information: The EAC acknowledges receiving plans to expand the major design project to a two-term course sequence which will allow students to address design activities in greater detail. However, these plans have not yet been implemented.
* The program weakness is unresolved. (automatically generated by AMS)
* [Add under Status Details] In preparation for the next review, the EAC anticipates documentation that will demonstrate incorporation of appropriate engineering standards and multiple realistic constraints in the major design experience.

Program Concerns

1. Criterion 6. Faculty This criterion requires that there be sufficient faculty to accommodate adequate levels of student-faculty interaction. The program has several adjunct faculty members who participate in teaching the culminating major design course. Students commented that they valued the contributions that these faculty members made to the course but found it difficult to contact them outside of class for questions. Lack of access to the adjunct faculty members outside the classroom has the potential to impact the adequacy of the program’s level of interaction with its students. Thus, future compliance with this criterion may be jeopardized.

* 30-day due-process response: The EAC acknowledges documentation that the program chairperson has reserved a small office for off-campus adjunct faculty members that will be used for scheduled office hours. The office will be open from 8:00 a.m. to 8:00 p.m. Adjunct faculty members will be requested to schedule at least two office hours per week. It was not clear from documentation provided that adjunct faculty established office hours as requested.
* The program concern is unresolved. (automatically generated by AMS)

2. Criterion 7. Facilities *The previous review cited the cramped conditions of the rocket engine lab. The lab appeared to be safe with all state and federally required safety devices in place. However, the space itself was not conducive to good teaching. With anticipated growth in the program, this space may not be suitable for future classes.*

Inspections of the space during the visit revealed that one wall had been moved back a few feet to make more room for students to view experiments with the rocket engines. However, the space is still quite cramped and not all students can see the experiments clearly.

* 30-day due-process response: The program did not respond to this concern.
* The program concern is unresolved. (automatically generated by AMS)

**INTERIM REPORT**

Institutional Summary

Sample-IR University (SU) is a land-grant public university with a mission of providing high-quality undergraduate and graduate programs. The university is organized into 12 colleges and schools. The College of Engineering and Science offers nine accredited undergraduate programs. The Widget Engineering program was the only program evaluated during this interim review. At the time of the previous review, the college had a total enrollment of 2,546 students, 103 full-time faculty members, and produced 487 graduates in the prior academic year.

**NOTE:**  The inclusion of strengths is not applicable for an Interim Report or Interim Visit.

**Widget Engineering**

B.S. Program

No Applicable Program Criteria

Introduction

The Widget Engineering (B.S.) program is housed in the Department of Widget and Gadget Engineering. The program had 183 undergraduates, eight full-time faculty members, and produced 30 graduates at the time of the previous review.

Program Weaknesses

1. Criterion 2. Program Educational Objectives *The previous review cited that the process used to determine the program educational objectives had not included the input of constituencies of the program. The program lists its students, faculty, industrial advisory board, major employers, and alumni as constituencies. There is no evidence that any of these groups, aside from the faculty themselves, were involved in setting program educational objectives.*

The interim report included a copy of the minutes of the Industrial Advisory Board meeting dated April 17, 2020, that indicates that the board approved the program educational objectives at that meeting. While the Industrial Advisory Board did approve the objectives, it is not clear how their needs were considered in the creation of the program educational objectives, or that the needs of the constituencies not represented on the board were considered in the process.

* 30-day due-process response: The EAC acknowledges receipt of a planning document that indicates that students and alumni would participate in Industrial Advisory Board meetings in which program educational objectives are to be discussed and that the program would include all constituencies in the review and revision of the program educational objectives. Evidence is lacking that this plan has been implemented.
* Post 30-day due-process information: The EAC acknowledges post 30-day due-process documentation that provides minutes from of the Industrial Advisory Board meeting dated March 19, 2018, during which the program educational objectives were discussed and reaffirmed. Representatives from all of the program’s constituencies participated in this meeting.
* The program weakness is resolved. (automatically generated by AMS)

2. Criterion 4. Continuous Improvement *The previous review cited that there was not a complete, documented process for successfully assessing and evaluating the degree to which student outcomes were attained. The results of the Fundamentals of Engineering exam were being used to assess some student outcomes. However, the assessment process did not address attainment of all outcomes or a continuous improvement plan to suggest and implement any changes.*

The program provided information indicating that at least three tools are now used to assess the attainment of each student outcome. The assessment process has been implemented and systematically used for continuous improvement. Although the program cited six different assessment tools that are used across the program, results were only provided for the “primary” assessment tool used for each student outcome. These primary assessments results are all associated with either the culminating design course or the Fundamentals of Engineering examination. It is not clear how some of these primary assessment results relate to the outcome being measured. For instance a table containing “mean percentage scores earned by students on items assessing understanding of professional and ethical responsibility” was used to demonstrate attainment of student outcome (1), (4), and (5). Similarly, student results from the dynamics, statics, mechanics of materials, and electricity and magnetism sections of the Fundamentals of Engineering examination were used to demonstrate attainment of the ability to design a system, component, or a process. Because the assessment tools used are not clearly appropriate for the outcome, the program lacks strength of compliance with this criterion.

* 30-day due-process response: The EAC acknowledges receipt of documentation including a detailed mapping of assessment instrument to student outcomes. The EAC also acknowledges receipt of summary information describing the assessment method, associated outcome, assessment frequency, and evaluation of assessment data for each student outcome. It is still not clear, however, if some instruments used for assessment provide appropriate data for evaluating student attainment of related outcomes. For example, it is not clear how results from the Fundamentals of Engineering exam sections related to probability and statistics, chemistry, and materials properties provide appropriate data for assessing a student’s ability to design and conduct experiments. Similarly, it is not evident how final team scores on the major design project were disaggregated to facilitate assessment of individual student outcomes including the ability to design a system and function on multidisciplinary teams.
* The program weakness is unresolved. (automatically generated by AMS)
* In preparation for the next review, the EAC anticipates documentation of the use of appropriate, documented processes for assessing and evaluating the extent to which student outcomes are attained and that the results of these evaluations are systematically used as input for continuous improvement of the program.

Program Concern

1. Criterion 5. Curriculum *The previous review cited that there was a risk that the program might not consistently devote adequate attention and time to each curricular component consistent with the outcomes, particularly student outcome (i) which requires each student to attain a recognition of the need for and an ability to engage in life-long learning. The program emphasized life-long learning in a freshman engineering seminar that is required for all students. However, the speakers slated to address this topic were invited guests that changed from year to year, and there appeared to be opportunity for this topic to be overlooked. There was therefore a risk that future compliance with this criterion might be jeopardized.*

The program did not address this concern in its report.

* 30-day due-process response: The program did not provide a response to this shortcoming.
* The program concern is unresolved.