**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 2024-25 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 section of the APPM 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 students 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 2024-25 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 2024-25 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 may be articulated by the program. It is not evident from the list of the program’s student outcomes that all components of Student Outcomes (1) through (7) required by this criterion 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) required by Criterion 3.

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 I.E.5.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. Consequently, there is a potential for injury to students, faculty, and staff. Thus, the program is not in compliance with the requirement implicit in APPM Section I.E.5.b.(1) that learning environments be safe for their intended purposes.

* 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 PHY131, 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 PHY131, 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, in preparation for professional practice, the curriculum include coverage of both thermal and mechanical systems. 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 sufficient to prepare students for professional practice. 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 2024-25 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 institutional 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 and five faculty members, and produced 15 graduates in the 2024-25 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. This information will be considered in due process.
* 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 RE101, 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 an ability to acquire and apply new knowledge [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. Thirty-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, 2023, 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, 2024, 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 (FE) Examination 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 FE exam. 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 Outcomes (1), (4), and (5). Similarly, student results from the dynamics, statics, mechanics of materials, and electricity and magnetism sections of the FE exam 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 FE 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 student outcomes, particularly Student Outcome (4) which requires each student to attain, among other things, an ability to recognize ethical and professional responsibilities in engineering situations. The program emphasized engineering ethics 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.

**EXAMPLES BY CRITERION**

*The following are examples of statements for shortcomings for several criteria and the APPM. While many of the shortcomings may describe common circumstances found during a visit, these examples should not be copied and used verbatim, but instead used as a guide for structure and language for writing your own statements, modifying the examples to reflect the actual observations made by the team during the visit and potential negative impact a shortcoming may have on the program.*

Criterion1 – Students

*Concern:*

* This criterion requires that students must be advised regarding curriculum and career matters. Currently, the program employs only two professional advisors who advise more than 500 students each semester. The advisors and students report that scheduling meetings is difficult, particularly near the time that enrollment opens for the next semester. Although the criterion is presently satisfied, with student enrollment continuing to grow, the potential exists that the advisors will be unable to regularly schedule meetings with all students. Thus, future compliance with this criterion may be jeopardized.

*Weakness:*

* This criterion requires that student progress be monitored to foster success in attaining student outcomes, thereby enabling graduates to attain program educational objectives. A review of transcripts showed that students took multiple courses out of sequence without having satisfied prerequisite requirements. No documentation of approved waivers was provided. Students who enroll in a course without the proper preparation are less likely to succeed in the course. Thus, the program lacks strength of compliance with this criterion.

*Deficiency:*

* This criterion requires the program to have and enforce procedures to ensure and document that students who graduate meet all graduation requirements. A review of six transcripts revealed that two students graduated without having successfully completed all required courses. One student graduated without passing ENGR430, Advanced Engineering Mechanics, and the other student did not take ENGR393, Engineering Circuits. Both courses are degree requirements, and no evidence was provided that substitutions were made. Unless students successfully complete all required courses before graduating, graduates may not be fully prepared for engineering practice. Thus, the program is not in compliance with this criterion.

Criterion 2 – Program Educational Objectives

*Concern:*

* This criterion requires the program to have a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of the program educational objectives that ensures they remain consistent with the program’s constituents’ needs. Alumni are identified as one of the program's constituencies, and the alumni review of the educational objectives has typically been obtained through a small group of individuals who serve on the industrial advisory board. While this criterion is currently satisfied, the absence of only a few individuals from an industrial advisory board meeting may result in this constituency's input being missed, thereby reducing the effectiveness of the review process. Thus, future compliance with this criterion may be jeopardized.

*Weakness:*

* This criterion requires the program to have a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of the educational objectives that ensures they remain consistent with the program’s constituents’ needs. The program has identified current students as a program constituency, but has not documented how students are involved in the review of the program educational objectives. Without the involvement of all program constituencies in the periodic review process, the program cannot ensure that the program educational objectives remain consistent with the needs of its constituents. Thus, strength of compliance with this criterion is lacking.
* 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. Program educational objectives are defined as broad statements that describe what graduates are expected to attain within a few years after graduation. Two of the four educational objectives listed by the program describe what students are expected to know or be able to do at the time of graduation, and therefore do not meet the definition of a program educational objective. Without appropriate program educational objectives, the program may miss opportunities to prepare students to meet the needs of the program's constituents. Thus, strength of compliance with this criterion is lacking.
* This criterion requires that there by a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of the program educational objectives that ensure they remain consistent with the institutional mission, the program’s constituents’ needs, and the engineering criteria. The program provided evidence of only one review of its program educational objectives that occurred five years ago, thus not establishing that the reviews are periodic. Without a periodic review of its program educational objectives involving all its constituencies, the program cannot ensure that the program educational objectives remain consistent with the institutional mission, the program’s constituents’ needs, and the engineering accreditation criteria. Thus, the program lacks strength of compliance with this criterion.

Criterion 4 – Continuous Improvement

*Weakness:*

* 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. Further, it requires that the results of these evaluations be used as input to the program’s continuous improvement actions. Although the program assesses student outcomes and determines the extent to which they are achieved, evidence was not provided that would demonstrate that the program utilizes the evaluation results as input to its continuous improvement actions. By not using the evaluation results as input to its continuous improvement activities, the program may miss opportunities for improvement. Thus, the program lacks strength of compliance with this criterion.
* 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. A summary of assessment data and evaluation results was provided; however, the data was often collected in courses that included students in multiple programs and the data was not disaggregated by program. Unless assessment data is disaggregated by program, the program cannot determine the extent to which the student outcomes are being achieved specifically by students in the program. Thus, the program lacks strength of compliance with this criterion.
* 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. In some courses, the program uses course assignment grades to assess multiple student outcomes. The evaluation instruments that were employed for grading and assessment purposes were not each sufficiently tailored to a single student outcome. Thus, a single grade conflated the results from across multiple outcomes or with other matters unrelated to the specific student outcome. Without an appropriate process for assessing student outcomes, the program cannot accurately determine the extent to which the student outcomes are being attained. Thus, the program lacks strength of compliance with this criterion.

Student Outcome 5 – Curriculum

*Weakness:*

* This criterion requires the program to have a culminating major engineering design experience that incorporates appropriate engineering standards and multiple constraints. The design deliverables and presentation reviews revealed that several of the projects did not incorporate appropriate engineering standards and multiple constraints. By not considering appropriate engineering standards and multiple constraints in the culminating design experience, students may not be prepared for engineering practice. Thus, the program lacks strength of compliance with this criterion.

*Deficiency:*

* This criterion requires that the program curriculum include a minimum of 30 semester credit hours (or equivalent) of a combination of college-level mathematics and basic sciences with experimental experience appropriate to the program. The program’s curriculum includes only 27 semester credit hours of mathematics and basic sciences as defined by the criteria. The program identifies an additional three semester credit hours of science in ENG3161, Materials Science, however a review of the course syllabus and student work shows that the course’s content does not meet the definition of basic sciences. Without including the minimal amount of mathematics and basic sciences in the program curriculum, students may not have the fundamental mathematical and scientific background to succeed in more advanced engineering courses. Thus, the program is not in compliance with this criterion.
* This criterion requires that the program include a minimum of 30 semester credit hours (or equivalent) of a combination of college-level mathematics and basic sciences with experimental experience appropriate to the program. The admission requirements of the program establish that students entering the program must have achieved a degree of mathematical sophistication at least equivalent to that of introductory calculus, and the program employs a different credit system than the semester credit hours referenced in this criterion. However, a review of the course syllabi, the student work, and the entrance requirements does not establish that the students will have achieved the equivalence of the 30 semester credit hours required by this criterion. Without ensuring that the students have covered the minimal amount of mathematics and basic sciences, they may not have the fundamental mathematical and scientific background to succeed in more advanced engineering courses. Thus, the program is not in compliance with this criterion.

Criterion 6 – Faculty

*Concern:*

* This criterion requires that the program have sufficient faculty to accommodate adequate levels of student-faculty interaction, student advising and counseling, university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students. While the faculty numbers are currently sufficient, program enrollment has trended higher in recent years, and thus class sizes are increasing and advising loads are also increasing. Although this criterion is presently satisfied, continued enrollment growth may reduce student-faculty interaction and the ability to adequately advise all students below acceptable levels. Thus, future compliance with this criterion may be jeopardized.
* This criterion requires that the program demonstrate that the faculty members are of sufficient number and they have the competencies to cover all of the curricular areas of the program. While the faculty numbers are currently sufficient, multiple retirements are imminent. Program constituents expressed concerns about anticipated retirements over the next few years and potential impacts on the program's ability to maintain its current curricular coverage and level of student-faculty interactions. Unless an adequate level of curricular coverage and student-faculty interaction is maintained, students in the program may be delayed in their progress toward graduation. Thus, future compliance with this criterion may be jeopardized.

*Weakness:*

* This criterion requires that the program demonstrate that the faculty members are of sufficient number and they have the competencies to cover all of the curricular areas of the program. The one faculty member with expertise in control systems retired in summer 2022. The program has not yet hired a full-time replacement faculty member, and has had difficulty finding part-time faculty members to regularly cover the curricular area. This has occasionally resulted in offerings of required courses being delayed. Without a sufficient number of faculty members with the competencies to cover all of the curricular areas of the program, students may be delayed in graduation or lack instruction on core topics within the program. Thus, the program lacks strength of compliance with this criterion.

Criterion 7 – Facilities

*Concern:*

* This criterion requires that classrooms, offices, laboratories, and associated equipment be adequate to support attainment of the student outcomes and to provide an atmosphere conducive to learning. Due to increased enrollment, laboratory class sizes have increased by approximately 25 percent over the last four years. While this currently appears to have minimal impact on student learning, if enrollment control measures recently implemented are not effective, the potential exists that further increases in laboratory course enrollment may reduce the ability of students to effectively attain the student outcomes. Thus, future compliance with this criterion may be jeopardized.
* This criterion requires that modern tools, equipment, and 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 program relies on old equipment to conduct experiments, and the program chair indicated there are no immediate plans to update the laboratories. Given the age of the equipment, spare parts and replacement units may be difficult to procure. Although the current equipment is maintained and appears to be adequate, any unexpected equipment malfunction or failure may result in a disruption to the impacted laboratory courses. Thus, future compliance with this criterion may be jeopardized.

*Weakness:*

* This criterion requires that modern tools, equipment, computing resources, and laboratories appropriate to the program must be available, accessible, and systematically maintained and upgraded to enable students to attain the student outcomes and to support program needs. A tour of laboratory facilities revealed that much of the equipment required for the program is outdated. No evidence of a plan to upgrade the laboratories was provided. Students commented that the laboratory equipment frequently failed, and the faculty and teaching assistants struggle to fix and make the equipment work. Without modern, functional equipment, students may be unable to attain the student outcomes and may not acquire the experimental skills necessary for engineering practice. Thus, strength of compliance with this criterion is lacking.

Criterion 8 – Institutional Support

*Concern:*

* This criterion requires that institutional support and leadership be adequate to ensure the quality and continuity of the program. Further, resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. From the information provided, resource allocation is sufficient to satisfy current program needs. However, budget trends at the university and for the program have been on the decline. The university’s budget has decreased significantly from 2020 to 2023. Across the same timeframe, the program’s materials and supplies budget decreased by 50%. While an adverse impact to the program was not found as a result of these budget reductions, continued funding reductions could negatively affect the program’s ability to provide an environment in which student outcomes can be attained. Thus, future compliance with this criterion may be jeopardized.
* This criterion requires that institutional support and leadership be adequate to ensure the quality and continuity of the program. Further, resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. From the information provided, resource allocation is sufficient to satisfy current program needs; however, the program has been experiencing significant enrollment growth, and that growth is expected to continue over the next three to five years. Interviews with the program leadership indicated that the current faculty staffing level will not be able to sustain the expected program growth, and more laboratory resources will be needed. While resources are sufficient for current needs, continued enrollment growth will likely require additional resources to avoid negatively affecting the program’s ability to provide an environment in which student outcomes can be attained. Thus, future compliance with this criterion may be jeopardized.

*Weakness:*

* This criterion requires that the resources available to the program be sufficient to acquire, maintain, and operate infrastructures, facilities, and equipment appropriate for the program, and to provide an environment in which the student outcomes can be attained. The one laboratory manager responsible for maintaining the program’s teaching laboratories left the institution more than a year ago. The institution plans to hire a replacement, but this has yet to occur. A faculty member has been doing her best to maintain the laboratories, but has been unable to dedicate the time needed to attend to the needs of the teaching laboratories. Without sufficient support to maintain these laboratories, laboratory safety and equipment cannot be adequately ensured, jeopardizing student attainment of the student outcomes. Thus, the program lacks strength of compliance with this criterion.
* This criterion requires that resources available to the program must be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. The program reports experiencing difficulties in recruiting full-time faculty members to fill open positions, caused in large part by its inability to offer competitive compensation packages. Due to the lack of faculty members, some required courses are not offered sufficiently frequently, causing delays in student completion of graduation requirements. These ongoing faculty vacancies result in an adverse impact on course offerings and lead to compromising the attainment of student outcomes. Thus, the program lacks strength of compliance with this criterion.

Accreditation Policy and Procedure Manual

*Deficiency:*

* Section I.E.5.b.(1) of the Accreditation Policy and Procedure Manual (APPM) states that the team will examine the facilities to assure that the instructional and learning environments are adequate and are safe for the intended purposes. Inspection of the laboratory areas revealed safety hazards associated with: (1) lack of safety signage or appropriate safety communication displays to laboratory personnel and users, (2) lack of safety warning notices specific to devices, (3) failure to provide materials safety data sheets, and (4) independent student access to hazardous equipment (such as the band-saw) without appropriate guidance and supervision. Consequently, there is a potential for injury to students, faculty, and staff due to inadequate safety information and protections. Thus, the program is not in compliance with the requirement implicit in APPM Section I.E.5.b.(1) that learning environments be safe for their intended purposes.
* Section I.A.6.a. of the Accreditation Policy and Procedure Manual (APPM) states that in at least one location readily accessible by the public (such as program home page or institution catalog), written media referring to accreditation must provide the following details for each specific ABET-accredited program: “accredited by the Engineering Accreditation Commission of ABET, under the commission’s General Criteria and Program Criteria for Mechanical and Similarly Named Programs.” The accreditation statement posted on the program’s website and in the institution’s catalog does not contain the required language, omitting that the program was accredited under the commission’s General Criteria and the appropriate program criteria. By not using the appropriate language to denote the program’s accreditation status, the public may be confused as to the program’s accreditation status and under what criteria the program has been accredited. Thus, the program is not in compliance with the APPM.