

# **AMERICAN COUNCIL FOR CONSTRUCTION EDUCATION**

## **DOCUMENT 103A**

### **STANDARDS AND CRITERIA FOR ACCREDITATION OF ASSOCIATE DEGREE CONSTRUCTION EDUCATION PROGRAMS**



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# STANDARD 1: INTRODUCTION

## INTENT

The purpose of this document is to define the standards and criteria by which those construction education programs seeking accreditation or re-accreditation by the American Council for Construction Education (ACCE) shall be assessed. Assessment shall be by peer educators from other construction education programs in concert with construction practitioners, representatives of the construction industry associations and organizations, and society at large. Assessment shall include an on-site visit by a designated team following the procedures specified in ACCE Document 101.

## Definitions

- **Assessment:** A process used to identify, collect, and prepare data to evaluate the achievement of Learning Outcomes and degree program objectives.
  - **Direct Assessment:** Evidence of student learning is in the form of a student product or performance that can be evaluated.
  - **Indirect Assessment:** Evidence of student learning is the perception, opinion, or attitude of students (or others).
- **Degree Program:** ACCE accredits post-secondary degree programs in construction. A degree program is an educational system with identified academic coursework, containing the body of knowledge necessary to obtain a college or university degree in that field of study. The degree program has objectives, learning outcomes, a curriculum, faculty, and facilities.
- **Degree Program Objectives:** Statements describing degree program desired accomplishments in support of its mission.
- **Educational Unit:** ACCE recognizes there are units at institutions of higher learning composed of faculty and staff capable of teaching or conducting research. These units typically offer degree programs with which they are affiliated. Operations may include budgets, faculty evaluations, promotion and tenure, scholarly activities, and determination of work assignments.
- **Educational Institution:** An institution of higher learning authorized to grant advanced degrees while providing the facilities for instruction or research (e.g. a university or college).
- **Evaluation:** A process of interpreting the meaning of the data accumulated through assessment practices. Evaluation determines the extent to which Learning Outcomes or degree program objectives are being achieved.

- **Learning Outcomes:** The set of knowledge, skills, and abilities to be attained by students upon completion of an event.
  - **Course Learning Outcomes (CLOs):** Learning Outcomes identified for a single course.
  - **Student Learning Outcomes (SLOs):** Learning Outcomes identified for graduation from an accredited degree program as defined by ACCE, herein. The SLOs establish the minimum level of learning and the body of knowledge to be addressed by the degree program.
  - **Program Learning Outcomes (PLOs):** Learning Outcomes identified for graduation as defined by the degree program. PLOs may differ from institution to institution as they may represent the individual character of the program and may place emphasis on specialized topical areas.
- **Performance Criteria:** Measurable achievements identifying required performance to meet the Learning Outcome such as an average score, a minimum rating, etc.
- **Shall:** Denotes a requirement that is mandatory.
- **Should:** Denotes a guideline or recommendation.
- **Standards:** Qualitative statements of minimum requirements upon which an accredited degree program shall be judged.

## **DEGREE PROGRAM NAME**

It is preferred that the formal title of the degree program contains the word "construction".

## **1.1 Requirements**

### **1.1.1 INSTITUTION AND DEGREE PROGRAM ELIGIBILITY**

To be considered for accreditation, a degree program in construction education shall:

- 1.1.1.1 Be located in an educational institution of higher learning that is legally authorized under applicable laws to provide a degree program of education beyond that of the secondary level. Furthermore, in the case of those institutions in the United States, be accredited by the appropriate regional accrediting agency, and in the case of other countries, be accredited by the accrediting agency appropriate for its locale, if such exists.

- 1.1.1.2 Have been in operation for sufficient time to have at least one (1) class of graduates receiving the degree for which accreditation is sought.
- 1.1.1.3 Offer an Associate Degree program with a major emphasis on professional construction education.
- 1.1.1.4 Have a designated administrator responsible for the leadership and management functions for the degree program under review.

### **1.1.2 Annual Fees**

- 1.1.2.1 A degree program accredited by ACCE shall pay the annual sustaining and other fees as required.

## **STANDARD 2: GOVERNANCE AND ADMINISTRATION**

### **INTENT**

It is intended that the manner in which the degree program is administered supports the concept that it is a distinct professional degree program and has sufficient institutional support, authority, and resources to enable the achievement of the degree program's stated mission, goals, and objectives.

## **2.1 Requirements**

### **2.1.1 INSTITUTIONAL ORGANIZATIONAL STRUCTURE**

- 2.1.1.1 The organizational structure of the educational institution shall provide a basis for establishing authority and responsibility, utilizing resources, and achieving the degree program's mission, goals, and objectives.
- 2.1.1.2 The degree program and its relationship to the overall organizational structure of the institution shall be documented, well-defined, and publicly accessible.

### **2.1.2 EDUCATIONAL UNIT AUTONOMY, STRUCTURE, AND LEADERSHIP**

- 2.1.2.1 The educational unit shall be a distinct and identifiable entity within the educational institution.
- 2.1.2.2 The degree program or educational unit shall be headed by a qualified administrator who is knowledgeable in and committed to the construction discipline.
- 2.1.2.3 The organizational structure of the educational unit shall be designed to encourage communication, coordination, and interaction between

administrative officers, faculty, and students involved with the degree program, other disciplines, and other educational institutions.

2.1.2.4 The educational unit and leadership structure shall be well-defined and publicly accessible.

### **2.1.3 FACULTY PARTICIPATION**

2.1.3.1 The faculty shall participate in the educational unit's governance and administration in accordance with the educational institution's guidelines.

2.1.3.2 The faculty shall participate in degree program maintenance and administration in accordance with the educational institution's guidelines.

### **2.1.4 CONTRIBUTION TO THE INSTITUTION**

2.1.4.1 The educational unit and degree program shall contribute to the mission of the institution.

## **STANDARD 3: CURRICULUM**

### **INTENT**

#### **Purpose of the Curriculum**

The purpose of curriculum is to ensure that upon graduation students are able to fulfill minimum expectations in terms of Learning Outcomes specified for Associate Degree programs. These expectations are in addition to the institutional requirements based on respective institutional mission and policies. The goal of ACCE is to prepare graduates who can provide leadership roles in construction in addition to being a responsible member of society. The curriculum should be responsive to social, economic, and technical developments and should reflect the application of evolving knowledge in construction and in the behavioral and quantitative sciences.

#### **General Guidelines**

The ACCE recognizes the autonomy of educational institutions in the matter of curriculum development and the levels and designations of the degrees awarded upon completion of the various programs. It also recognizes the autonomy of educational institutions in establishing standards and policies pursuant to acceptance of transfer credits for educational courses from either accredited or non-accredited institutions.

Furthermore, no degree program can offer every course or experience that could be suggested for the education of a student. In addition, it may be desirable in some instances to develop curriculum in one or more areas of construction specialization. Such specialties may be developed as a stand-alone degree program or as part of a

multi-option degree program. It is assumed that each educational unit will develop its own degree program goals, objectives, and particular emphasis and will prescribe the number of courses for graduation, sequencing of study, course numbers, and titles.

The ACCE encourages accredited degree programs to regularly evaluate current curriculum and develop new curriculum that reflect changing construction technologies and management trends. The curriculum should be designed to accommodate continually expanding requirements of the profession, advancements in knowledge, and the contributions of related disciplines. Degree programs seeking accreditation should strive to provide offerings that exceed the ACCE standards and criteria for accreditation. Curriculum planning flexibility in the following subject areas recognizes and encourages differing emphases by educational units.

### **Guidelines for General Education, Business, and Management**

The ACCE recognizes that the content and validity of courses taught outside the educational unit are established by the various specialty and regional accreditations of the institution. Such courses will be accepted by ACCE at face value as presented in course titles, descriptions, etc.

It is important that every student's education include appropriate courses in communications, mathematics, science, business and management.

Construction is concerned with people and their relationships. Thus, the ability to communicate, both orally and in writing are essential assets to the student.

It is essential that every student possess a well-developed concept of mathematics. Construction is in part a technical process that can be best controlled by applying the principles of mathematics and statistics.

An understanding of the behavior of the materials, equipment, and methods used in construction requires knowledge of the physical and environmental sciences.

To be an effective manager, the student should know how to manage the principal resources of the industry and the business environment in which construction occurs.

### **Guidelines for Construction**

Coverage of both office and field activities that include the effective management of personnel, materials, equipment, costs, and time are essential.

Inclusion of topics that provide an appropriate combination of breadth and depth in current construction industry practice are needed. These topics develop skills, which will facilitate advancement of the individual in the construction profession.

Present construction courses in a manner that encourages problem definition and solution, creativity, communication, evaluation, and continuous learning. Integrate and utilize the knowledge, understanding, and skills gained from prerequisite courses in

subsequent courses. Inclusion of industry contemporary topics and technology in curriculum is crucial.

## **3.1 Requirements**

### **3.1.1 DEGREE PROGRAMS**

It is the degree program's responsibility to develop its own goals, objectives, and particular emphasis, and prescribe the number of courses for graduation, sequencing of study, course numbers, and titles. The degree program shall be consistent with the teaching philosophy and the purposes of both the educational unit and the institution. The degree program curriculum shall be related to the needs of society and the construction profession.

*A minimum of 60 semester hours (quarter hours) is required for accreditation of associate degree program in the U.S.*

*An equivalent minimum, as determined by ACCE, is required for accreditation of associate degree programs outside of the United States.*

Additional credits to meet graduation may be required by the educational unit or the institution.

The curriculum shall include academic coverage of specific core subject areas that are essential for a graduate to function effectively in the construction environment. These core subject areas are general education and business and management as listed below.

The following requirements of semester hours (quarter hours) in core subject areas shall serve as partial fulfillment of a minimum total of 18 semester hours (27 quarter hours) for associate degree programs. These minimum semester hours (quarter hours) shall be taught outside the degree program to enhance the interdisciplinary nature of the degree program.

### **3.1.2 GENERAL EDUCATION**

#### **3.1.2.1 Communications**

*A minimum of 3 semester hours (4 quarter hours) is required in the communications core subject area.*

#### **3.1.2.2 Mathematics**

Associate Degree programs shall incorporate topics in mathematics covering algebra, trigonometry, analytic geometry, pre-calculus, or statistics.

*A minimum of 3 semester hours (4 quarter hours) is required in the mathematics core subject area.*

### 3.1.2.3 Physical or Environmental Science

Physical and environmental sciences shall be analytically based and not descriptive.

*A minimum of 3 semester hours (4 quarter hours) is required in the physical or environmental science core subject area.*

### 3.1.3 BUSINESS AND MANAGEMENT

Only general and fundamental business topics can be used for this requirement and are intended as foundational knowledge for construction business practices. These topics are typically taught outside of the degree program. They shall be separate and distinct and are not to be confused or intermingled with the construction business and management topics.

Graduates of Associate Degree programs shall have an understanding of the fundamentals of:

- Accounting, or
- Economics, or
- Business law, or
- Principles of management.

*A minimum of 3 semester hours (4 quarter hours) is required in the business and management core subject area.*

### 3.1.4 CONSTRUCTION

Courses counted in the core subject area of construction shall address the construction-specific Student Learning Outcomes listed in section 3.1.5.

*A minimum of 33 semester hours (48 quarter hours) is required in the construction core subject area.*

Table 3.1.1 Summary of Category Semester (Quarter) Hour Requirements

Curriculum Categories	Associate Degree	
	SH*	QH**
A Communications	3	4
B Mathematics	3	4
C Physical Science	3	4
3.1.3 Business & Management	3	4
<b>Total Combined A, B, C, and 3.1.3 ***</b>	18	27
3.1.4 Construction	33	48
<b>Subtotal prescribed category</b>	51	75
Other credits ****	9	15
<b>Total ACCE Accreditation Requirements</b>	60	90

\* Semester Hour

\*\* Quarter Hour

\*\*\* The total shown for A, B, C, and 3.1.3 is 12 semester hours for Associate Degree. These semester hours fulfill a portion of the Total Combined required minimum of 18 semester hours for an associate degree. Six additional semester hours are therefore necessary to meet the Total Combined hours for an associate degree and may come from any combination of courses within these core areas. All 18 required semester hours for associate degree programs generated within these core areas shall be taught outside the degree program to enhance the interdisciplinary nature.

\*\*\*\* These semester (quarter) hours shall be used by the degree programs in any way it desires to meet ACCE Student Learning Outcomes, degree program-specific focus or specialization, and other institutional requirements.

### 3.1.5 STUDENT LEARNING OUTCOMES

**Note:** In defining the Learning Outcomes for associate degree programs, the following verbs consistent with Bloom's taxonomy are used:

- Apply:** At this level, students begin to put the information they are learning into context. Here they are able to interpret ideas across multiple situations, or utilize the content in a new way.
- Understand:** At this level, students demonstrate that they understand the content by explaining, summarizing, classifying, or translating the given information.

Upon graduation from an accredited ACCE associate degree program, graduates shall be able to:

1. *Apply effective communication, both orally and in writing.*
2. *Apply the skills to estimate quantities and costs for the bidding process in a construction project.*
3. *Apply the aptitude to schedule a basic construction project*
4. *Apply current technology related to the construction process.*
5. *Apply the interpretation of construction documents (contracts, specifications, and drawings) used in managing a construction project.*
6. *Apply basic principles of construction accounting.*
7. *Apply basic surveying techniques used in building layout.*
8. *Understand basic principles of ethics in the construction industry.*
9. *Understand the fundamentals of contracts, codes, and regulations that govern a construction project.*
10. *Understand basic construction methods, materials and equipment.*
11. *Understand basic safety hazards on a construction site and standard prevention measures.*
12. *Understand the basic principles of structural design.*
13. *Understand the basic principles of mechanical, electrical and piping systems.*

### 3.1.6 DETERMINATION OF ACHIEVEMENT OF STUDENT LEARNING OUTCOMES

- To accurately determine the inclusion of Student Learning Outcomes listed in 3.1.5 above, the degree program shall:
- 3.1.6.1 Provide an index, cross-tab, curriculum map, or other form of summary relating courses used to meet the 33 semester hours (48 quarter hours) construction core requirements to Student Learning Outcomes.
- 3.1.6.2 Provide a syllabus for each course used to support the Student Learning Outcomes. Syllabi for the courses taught by the program shall include the following:
- Course Learning Outcomes in relation to the Student Learning Outcomes,

- Instructional methods,
  - Topical outline,
  - Method of assessment of Course Learning Outcomes, and
  - Grade performance criteria.
- 3.1.6.3 Evaluate each Student Learning Outcome by a minimum of two assessment methods, at least one of which must be direct, and provide a table identifying the specific assessment methods used for each Student Learning Outcome. Note: If student teams or group projects are used for assessment, there must also be a process in this team/group environment to assess individual student learning.
- 3.1.6.4 Produce evidence in the form of assessment tools, any associated grading rubrics, and one example of graded student work to prove adequacy of the assessment tool in evaluating individual student's ability to meet each Student Learning Outcome. Programs using third-party certifications shall provide comprehensive results for each Student Learning Outcome where such assessment is applied.
- 3.1.6.5 Provide evidence that the results obtained from the formal assessment of the Student Learning Outcomes have been included as part of the quality improvement plan.
- 3.1.6.6 Provide a report of the methods of assessment for each Student Learning Outcome, and the most recently reported evaluation of the results, resulting actions, and a follow-up of these actions on student performance including the dates of each of these.

## **3.2 Courses Delivered by Alternative Forms of Delivery**

Courses delivered by alternative forms of delivery to the traditional face-to-face classroom (e.g., distance learning or online courses via synchronous or asynchronous delivery) may be incorporated in an accredited degree program's curriculum under the following conditions:

- 3.2.1** The alternative courses will be accepted for transfer credit as reviewed and accepted by the accredited educational institution programs.
- 3.2.2** The degree program shall display the same kind of course material for evaluation of alternative courses as set forth in this document for a traditionally offered classroom lecture or laboratory course. Online course materials, including examples of student work, may be presented for review in online format as long as they are readily accessible to the Visiting Team and are accurately identified with course number and semester (or quarter).
- 3.2.3** Construction-specific courses shall be evaluated for content as set forth in this document, regardless of delivery format.
- 3.2.4** Programs that offer the same course via two or more forms of delivery (e.g., live classroom and online) shall demonstrate that courses with the same course number have consistent content and Course Learning Outcomes.

### **3.3 Multiple Campus Degree Program Delivery**

It is possible for split or dual institutional campuses to be accredited as a single degree program as long as the following conditions exist:

- 3.3.1** There is a single institution authorized to grant the degree. The institution is to provide evidence through student diplomas and transcripts from all campuses.
- 3.3.2** The degree program is led by a single qualified administrator from the home campus.
- 3.3.3** The degree program administrator has sufficient authority and experience to be able to provide the required leadership and supervision that allows the development of a strong academic degree program.
- 3.3.4** There are adequate faculty and staff to successfully facilitate the degree program at different geographic campus locations.
- 3.3.5** Degree program curriculum, Student Learning Outcomes, and the degree requirements are the same on all campuses.
- 3.3.6** If multiple educational units are involved to support the degree program:
  - 3.3.6.1** All educational units shall use only one academic quality plan identifying the process used for the continuous improvement of the degree program.
  - 3.3.6.2** The goals and objectives of the educational units need to be aligned to facilitate the success of the degree program and its continual improvement.
- 3.3.7** One educational unit shall be identified as the home for the degree program. This unit shall be responsible for the successful delivery of the degree program and is the geographical base for degree program operations.
- 3.3.8** Dual programs not meeting all of these conditions shall be accredited independently.

### **3.4 Dual or Second Degrees**

ACCE accredited degree programs that accept credits from other degree programs (second degrees, dual credit, and the like) or in any other way modify curriculum shall demonstrate that the modified degree path for those students fulfills the required curriculum standards. The degree program shall meet all stated requirements regardless of whether the degree earned is first or second degree. This also applies to existing, accredited degree programs that modify the curriculum for specific tracks, areas of specialization, or emphasis. Modified degree paths that do not meet ACCE standards shall be specifically identified within their marketing materials (e.g., website, brochures, etc.) that they are not included in the ACCE accreditation.

## **STANDARD 4: FACULTY AND STAFF**

### **INTENT**

This section describes the requirements that degree programs need to establish for the recruitment, retention, promotion, and development of qualified faculty conducting teaching, research and creative activity, and service for the degree program. Faculty participation in professional organizations and community services is encouraged. Defining a plan for professional development of faculty to maintain their high level of professional competence is desirable.

### **4.1 Requirements**

In determining the qualitative and quantitative adequacy of the faculty and staff for the degree program, various criteria are applied. Significant emphasis is placed on the qualifications and responsibilities of the degree program's faculty.

#### **4.1.1 FACULTY QUALIFICATIONS**

- 4.1.1.1 The faculty shall possess appropriate academic qualifications, professional experience, and where applicable pursue scholarly and creative activities essential to the successful conduct of an academic degree program of construction, and in compliance with the regional accreditation organizations.
- 4.1.1.2 The faculty shall have demonstrated expertise in the areas for which they have teaching responsibilities and possess adequate background in the supporting disciplines from which their area of specialty draws major concepts and principles.
- 4.1.1.3 Evaluation of faculty competence shall recognize appropriate professional experience as being equally as important as formal educational background.

#### **4.1.2 FACULTY SIZE**

- 4.1.2.1 The size of the construction faculty shall be commensurate with the number of courses offered, the number of students enrolled, and the other responsibilities of the faculty.
- 4.1.2.2 The faculty size shall be appropriate to the type of instruction (face-to-face vs. online, lab vs. lecture, studio, etc.) and comparable to that of the other academic degree programs of similar size and function within the institution.
- 4.1.2.3 The institution shall recognize the total professional responsibilities and services (in addition to the teaching assignments) of each faculty member in allocating faculty lines to the degree program.

### **4.1.3 FACULTY WORKLOAD**

- 4.1.3.1 Faculty workload shall be distributed fairly.
- 4.1.3.2 It is recognized that workload assignment is a difficult process and requires the qualitative judgment of the administrator. The following factors shall be considered in the determination of a workload: number of lecture hours, number of laboratory hours, number of separate preparations, class size, availability of teaching assistants, counseling and advising activities, administrative activities, committee assignments, extension or continuing education commitments, and research activities.

### **4.1.4 ADMINISTRATIVE AND TECHNICAL STAFF SUPPORT**

Administrative and technical staff support shall be adequate to sustain fulfillment of the degree program's mission and be consistent with the level of support enjoyed by other degree programs of similar size and function within the institution.

### **4.1.5 EMPLOYMENT POLICIES**

- 4.1.5.1 Faculty compensation shall be competitive with comparable positions within the institution to ensure that quality faculty and high morale exist.
- 4.1.5.2 To ensure that the construction unit is competitive in seeking faculty members, the educational institution shall provide the faculty with rank, status, salary, and benefits commensurate with their educational background and professional experience.

### **4.1.6 PROFESSIONAL POLICIES**

- 4.1.6.1 Continuing professional growth of the faculty is a prerequisite to effective teaching. Administrative policy shall plan and ensure that opportunities for professional development are made available to faculty.
- 4.1.6.2 Consulting work is desirable and shall be encouraged, provided such activities do not conflict with normally assigned duties and responsibilities of the faculty member.

### **4.1.7 FACULTY EVALUATION**

- 4.1.7.1 The educational unit shall have a clearly defined program of faculty evaluation, in compliance with the educational institution's general policy and practices, to assure the maintenance of high quality instruction.
- 4.1.7.2 These evaluations shall be made on a cycle determined appropriate by the educational institution, and may include student, peer, or administrator evaluations.

## **STANDARD 5: STUDENT POLICIES**

### **INTENT**

This section describes the requirements that degree programs need to establish for recruitment, admission, and academic and professional development of students as well as their capabilities and motivation for entering the degree program. Qualifications of students admitted to the degree program are appropriate to the respective institution, motivation, and career orientation to ensure students' successful completion of the curriculum.

### **5.1 Requirements**

#### **5.1.1 ACADEMIC POLICIES**

Policies pertaining to academic requirements shall be in writing and shall be developed with input from faculty, students, and other degree program stakeholders. Such policies shall clearly indicate required courses and acceptable elective courses that meet degree program objectives and the Student Learning Outcomes.

#### **5.1.2 TEACHING QUALITY**

The degree program shall have a clearly established process for ensuring quality of teaching by full-time and part-time faculty that is consistent with the degree program's mission and objectives. A mechanism shall be in place through which there is a systematic assessment and clear set of metrics to verify improvement of the quality of teaching within the degree program.

#### **5.1.3 ADMISSIONS AND ENROLLMENT**

The degree program's requirements for admission shall reflect standards supportive of students' potential for success in studies and in professional practice, while also reflecting institution-wide policies and the degree program's mission, goals and objectives.

#### **5.1.4 RECRUITMENT AND COMPOSITION**

The degree program shall undertake creative and appropriate recruitment and retention mechanisms to achieve its aspirations regarding student composition. Recruitment shall be directed toward those individuals with high academic achievement and community involvement as well as those with defined career goals in construction. Recruitment and publicity for the degree program shall be comparable to other programs of the institution.

### **5.1.5 ACADEMIC ADVISING AND MENTORING**

The degree program shall make available to students an organized system of academic advising and counseling and professional guidance. The process shall be clearly outlined and include competent, continuous, and consistent program advising, progress appraisal, and career guidance.

### **5.1.6 COURSE SCHEDULING**

Courses shall be offered in formats and times to ensure appropriate student access and timely completion of degree program requirements.

### **5.1.7 STUDENT PLACEMENT**

The degree program or its institution shall provide a student placement service that can effectively assist students in entering the job market. The degree program shall ensure that students are well informed about and have adequate access to placement services and opportunities that are or may be available.

### **5.1.8 EXTRACURRICULAR ACTIVITIES**

Extracurricular activities provide valuable interpersonal and leadership experience. Thus, students shall be encouraged to participate in activities that complement their academic studies. Such activities shall include involvement with industry-based professional and trade organizations. Students who are participating in courses via alternative delivery methods and who are not able to participate in campus-centered extracurricular activities shall be encouraged to become involved with industry-based professional and trade organizations and other related volunteer activities in their local area. The extent of participation by students in extracurricular activities is an indication of the unity of the student body and promotes interest in citizenship and professional societies after graduation.

### **5.1.9 STUDENT FEEDBACK**

The degree program shall use an assessment strategy that systematically uses student feedback and input as an integral part of the decision making and continuous improvement processes.

### **5.1.10 FINANCIAL AID AND SCHOLARSHIPS**

The institution shall keep students informed about the availability of financial aid and shall have published criteria for its allocation. The degree program shall keep students informed of scholarship opportunities.

## **STANDARD 6: PHYSICAL RESOURCES**

### **INTENT**

The intent of this section is to ensure the availability of safe and appropriate facilities (on and off-campus), equipment, and services necessary to accommodate all activities in support of the degree program's mission, goals, and objectives.

### **6.1 Requirements**

Adequate physical resources for the degree program is an important indicator of institutional support, as such the degree program shall be accorded minimum resources comparable to other degree programs of similar function within the institution, and commensurate with educational objectives.

#### **6.1.1 OFFICES, CLASSROOMS AND LABORATORY SPACES**

Physical facilities, such as offices, classrooms, laboratories, and associated equipment shall be available and maintained to adequately support the degree program's mission, goals, and objectives; to enable students to attain required Learning Outcomes; and provide faculty and staff with adequate space.

#### **6.1.2 LIBRARY RESOURCES**

Students shall have access to adequate library services to enable attainment of required Learning Outcomes and support the scholarly and professional activities of the faculty.

#### **6.1.3 INFORMATION SYSTEMS AND TECHNOLOGICAL EQUIPMENT**

Students and faculty shall have access to adequate computational equipment and software to enable students to attain required Learning Outcomes and support the scholarly and professional activities of the faculty.

## **STANDARD 7: FINANCIAL RESOURCES**

### **INTENT**

Financing for the degree program is an indication of administrative support for the degree program. Sufficient funding from recurring accounts is paramount to the success of any educational degree program.

## **7.1 Requirements**

### **7.1.1 BUDGETED FUNDS**

Adequate funding of the degree program is an important indicator of institutional support. The construction educational unit shall be accorded status comparable to other educational units of similar size and function within the institution with regard to finance. If the educational unit administers other degree programs, the construction degree program shall be accorded status comparable to other degree programs of similar size and function within the educational unit with regard to finance.

- 7.1.1.1 Sufficient funds shall be budgeted for the following items: competitive salaries for faculty and support staff, educational materials and supplies, and equipment that are necessary for the program to achieve its stated mission, goals, and objectives and enable students to attain the required Learning Outcomes.
- 7.1.1.2 Projected resources shall be adequate to ensure the capacity of the degree program to achieve its planned growth, future goals, and objectives.

### **7.1.2 NON RECURRING FUNDS**

- 7.1.2.1 The source, amount, and use of nonrecurring funds (soft monies, annual gifts, donations, etc.) for the degree program shall be identified and recorded.
- 7.1.2.2 Nonrecurring funds shall be used to supplement budgeted funds allocated by the administration rather than to replace those funds described in 7.1.1.2, above.

## **STANDARD 8: INDUSTRY, ALUMNI, AND PUBLIC RELATIONS**

### **INTENT**

Construction is a practice-oriented profession. Therefore, the degree program should establish an effective relationship with the industry and its alumni to provide a source of internships for students, scholarly development for faculty, and professional guidance and financial support for the degree program. These interactions advance faculty competence, maintain the currency of faculty and students relative to construction practice, and provide continuing education opportunities for industry practitioners.

## **8.1 Requirements**

### **8.1.1 SUPPORT FROM INDUSTRY**

An advisory committee with representation from the construction industry shall be utilized to periodically review the degree program curriculum and advise the educational unit on the establishment, review, and revision of its degree program educational objectives.

- 8.1.1.1 The composition of the committee shall be representative of the potential employers of the graduates of the degree program and other industry professionals.
- 8.1.1.2 The committee shall meet at least once a year for the purpose of advising and assisting the development and enhancement of the degree program.
- 8.1.1.3 Minutes of such meetings shall be kept on record.

### **8.1.2 SUPPORT FOR INDUSTRY**

The degree program shall maintain continuous liaison with the various constituencies it serves via active participation by faculty in associations and other professional organizations for the purpose of serving the construction industry.

### **8.1.3 STUDENT-INDUSTRY RELATIONS**

- 8.1.3.1 The degree program shall actively encourage and facilitate participation of students in activities of construction related organizations, internships, and cooperative education programs.
- 8.1.3.2 Construction-related work experience is equally important for students who are enrolled in online classes or are participating in the program via distance education. These students shall have access to information about internships and cooperative education programs and activities of construction related organizations in their local area.

### **8.1.4 ALUMNI RELATIONS AND FEEDBACK**

The degree program shall maintain a current registry of alumni and seek their feedback in its improvement process. It shall engage the alumni in activities such as a formal advisory board, student career advising, potential employment, curriculum review and development, fund raising, and continuing education.

### **8.1.5 PUBLIC DISCLOSURES**

The educational unit shall demonstrate accountable behavior by providing information about its accredited degree programs to the general public.

- 8.1.5.1 Institutions shall broadly and accurately publish the objectives of the degree program, admission requirements, degree program assessment

- measures employed, the information obtained through these assessment measures and actions taken as a result of the feedback, student achievement, the rate and types of employment of graduates, and any data supporting the qualitative claims made by the degree program.
- 8.1.5.2 No ranking shall be implied through linkage to ACCE accreditation.
  - 8.1.5.3 Indication of accreditation status is authorized during any defined term of accreditation.

## **STANDARD 9: ACADEMIC QUALITY PLANNING PROCESS AND OUTCOME ASSESSMENT**

### **INTENT**

Students should be prepared—through educational programs, advising, and other academic and professional opportunities—to pursue a career in construction upon graduation. Students should have demonstrated knowledge and skills in creative problem solving; critical thinking; communications; and the effective management of personnel, materials, equipment, costs, and time to allow entry into the construction profession. Outcomes assessment is a systematic process of gathering and interpreting information to discover if a program is meeting established objectives and then in using that information to enhance the program.

### **9.1 Requirements**

While ACCE recognizes the obligation of degree programs to use assessment terminology congruent with their institutions, it is necessary for ACCE Visiting Teams to have a consistent understanding of terminology used in the assessment process. With that purpose in mind, the ACCE will use the definitions in Standard 1 as the preferred terminology in assessment documentation.

If degree programs cannot use this terminology because of institutional constraints, they shall provide a glossary of compatible terminology at the beginning of Section 9 in the self-study document.

#### **9.1.1 CONTINUOUS IMPROVEMENT**

The educational unit shall have a Quality Improvement Plan (QIP) that shall serve as the basis for the continuous improvement of the degree program. The QIP shall have three major components: Strategic Plan for the educational unit, Assessment Plan for the degree program, and Assessment Implementation Plan for the degree program.

These documents shall be included in the Self-Study and made available for the Visiting Team's review and discussion.

## **9.1.2 EDUCATIONAL UNIT STRATEGIC PLAN**

- 9.1.2.1 The educational unit responsible for the degree program shall have a comprehensive Strategic Plan that describes the systematic and sustained effort to enable the degree program to fulfill its mission.
- 9.1.2.2 This Strategic Plan shall review the internal status of the degree program resources as well as the external factors that influence the operation of the degree program.
- 9.1.2.3 The Strategic Plan shall be updated periodically and represent the collective input from all of the degree program constituencies.

## **9.1.3 DEGREE PROGRAM ASSESSMENT PLAN**

The degree program shall provide evidence of its effectiveness in preparing construction practitioners based on the results of surveys of the graduates, employers of the graduates, industry advisory board, exit interviews, comprehensive exams, capstone projects, or other systematically structured information.

The mission, goals, and objectives shall reflect both short-range and long-range considerations and shall be clear as to the educational and institutional results expected.

At a minimum, the degree program Assessment Plan shall include the following:

- 9.1.3.1 **Mission Statement of the Degree Program.**  
The mission statement expresses the underlying purposes and values of the degree program.
- 9.1.3.2 **Degree Program Objectives.**  
The Degree Program Objectives shall be clearly defined and stated in a manner that permits an assessment of achievement.
- 9.1.3.3 **Program Learning Outcomes.**  
These Program Learning Outcomes shall meet or exceed the ACCE Student Learning Outcomes (section 3.1.5) and be regularly formulated, evaluated, and reviewed with the appropriate participation of faculty, students, industry advisory board, and other pertinent parties.
- 9.1.3.4 **Assessment Tools.**  
These tools shall measure achievement of Degree Program Objectives and student achievement of Program Learning Outcomes as stated in 9.1.3.2 and 9.1.3.3. The frequency for using the tools and procedures for data collection shall also be stated.
- 9.1.3.5 **Performance Criteria.**  
There must be at least one performance criteria for each assessment tool. These criteria shall be used to measure the achievement of the Degree Program Objectives and Program Learning Outcomes as stated in 9.1.3.2 and 9.1.3.3.
- 9.1.3.6 **Evaluation Methodology.**  
This methodology shall be followed for data collection.

Degree programs shall comprehensively describe their assessment plan and document the results for review by the Visiting Team.

#### **9.1.4 DEGREE PROGRAM ASSESSMENT IMPLEMENTATION PLAN**

It shall be clearly evident that the degree program is making progress in achieving its mission, objectives, and Learning Outcomes, and that it takes the outcomes assessment results into consideration in degree program development.

- 9.1.4.1 Degree program shall conduct a comprehensive assessment of its objectives and Program Learning Outcomes. Data collection to measure achievement of goals and Program Learning Outcomes shall occur at least annually.
- 9.1.4.2 The results of each assessment cycle shall be documented in a systematic manner. A complete cycle is defined as an assessment of all ACCE Student Learning Outcomes. The cycle shall not exceed three years.
- 9.1.4.3 Evaluation of the Degree Program Objectives and Program Learning Outcomes shall be compared to the stated performance criteria to determine whether stated objectives and Program Learning Outcomes were achieved and if there is a validated need for improvement in any areas.
- 9.1.4.4 After each complete assessment cycle, the entire process shall be reviewed and updated with plans for improvement including any revisions to the degree program's assessment plan.

### **STANDARD 10: REVIEW OF LAST VISITING TEAM'S WEAKNESSES AND CONCERNS**

#### **10.1 Previous Accreditation Actions**

There shall be significant progress in removing any deficiencies identified by the ACCE in previous accreditation actions.