

AMERICAN COUNCIL FOR CONSTRUCTION EDUCATION

DOCUMENT 103M

STANDARDS AND CRITERIA FOR ACCREDITATION OF MASTER'S 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 master's degree 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 a master's 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 master's 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.

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.

At the master level, research communication, critical thinking, complex decision-making, professional ethics, and advanced construction management practices become important to the student's education.

Prior to entering the program, it is essential that the student demonstrate a high level of knowledge and understanding of the use and application of construction principles and technology required to be successful in the degree program especially in the areas of estimating, scheduling and project management.

3.1 Requirements

3.1.1 PRELIMINARY STUDENT LEARNING OUTCOMES FOR THE MASTER'S DEGREE

Applicants to an accredited ACCE master's degree program must demonstrate a high level of knowledge and understanding of the use and application of construction principles and technology required to be successful in the program including core competencies of cost estimating, scheduling and project management. Master's degree programs seeking accreditation must:

1. Identify the minimum acceptable preliminary learning outcomes required of applicants.
2. Describe how achievement of the preliminary learning outcomes are assessed by the master's degree program.
3. Explain what actions are taken for students who do not meet the minimum preliminary learning outcomes necessary for acceptance into the master's degree program.

3.1.2 STUDENT LEARNING OUTCOMES

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

- Create:** At the highest level, students are producing new ideas or products that integrate the knowledge they have gained. When students are involved in creating new artifacts, they are actively engaged in the subject matter.
- Apply:** At this level, students begin to put the information they are learning into context. Here they are able to integrate 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.

The development of professional skills and knowledge is a central requirement of an ACCE accredited master's degree program. ACCE requires that all graduates accredited master's degree programs be able to demonstrate mastery of the following:

1. *Create effective and professional written communications*
2. *Apply critical thinking.*
3. *Apply problem solving techniques.*
4. *Apply decision making techniques.*
5. *Apply research methods.*
6. *Apply advanced communication technology.*
7. *Apply professional ethics.*
8. *Apply advanced construction management practices.*
9. *Understand risk management.*
10. *Understand the principles of leadership in business.*

3.1.3 DETERMINATION OF ACHIEVEMENT OF STUDENT LEARNING OUTCOMES

To accurately determine the inclusion of Student Learning Outcomes listed in 3.1.2 above, the degree program shall:

- 3.1.3.1 Provide an index, cross-tab, curriculum map, or other form of summary relating courses to the Student Learning Outcomes.
- 3.1.3.2 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
- 3.1.3.3 Evaluate each Student Learning Outcome by 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.

- 3.1.3.4 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.
- 3.1.3.5 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.
- 3.1.3.6 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 master's 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, second, or a subsequent master's 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's, 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 pursue scholarly and creative activities essential to the successful conduct of an academic master's degree program of construction, and in compliance with the regional accreditation organizations. If required by the institution, faculty members will be accorded status as a member of the Graduate Faculty.
- 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 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 and research 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 master's 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 and research. 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, and/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

It is recognized that not every master's degree program is able to provide the opportunity for student participation in 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

- 7.1.1.1 Adequate funding of the degree program is an important indicator of institutional support. Budgeted funds are annual recurring funds from the state, foundation, or revenue accounts. It is essential that the construction educational unit 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 master's degree program in construction shall be accorded status comparable to other degree programs of similar size and function within the educational unit with regard to finance.
- 7.1.1.2 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.
- 7.1.1.3 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. Additionally, there should be an active program of continuing education and research (where required by the institution) directly applicable to and in support of the construction industry. The master's degree program should maintain continuous liaison with the various constituencies it serves for the purpose of establishing educational and professional development activities for 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 master's degree program 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.
- 8.5.1.2 No ranking shall be implied through linkage to ACCE accreditation.
- 8.5.1.3 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 MASTER'S DEGREE PROGRAM ASSESSMENT PLAN

The master's degree program shall provide evidence of its effectiveness in preparing construction practitioners and researchers based on the results of surveys of the graduates, employers of the graduates, industry advisory board, exit interviews, comprehensive exams, capstone projects, thesis 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 3.1.2) 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 assessment plan of the degree program.

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.