CRITERIA FOR ACCREDITING APPLIED SCIENCE PROGRAMS

Effective for Evaluations During the
2005-2006 Accreditation Cycle

Incorporates all changes
approved by the
ABET
Board of Directors
as of
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Applied Science Accreditation Commission

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Criteria for Accrediting Applied Science Programs

Effective for Evaluations during the 2005-2006 Accreditation Cycle

I. GENERAL CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

It is the responsibility of the institution seeking accreditation of applied science programs to demonstrate clearly that the programs meet the following criteria.

Criterion 1. Students

The quality and performance of the students and graduates are important considerations in the evaluation of an applied science program. The institution must evaluate, advise, and monitor students to determine its success in meeting program objectives. The institution must have and enforce policies for the acceptance of transfer students and for the validation of courses taken for credit elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements.

Criterion 2. Program Educational Objectives

The applied science program for which an institution seeks accreditation or reaccreditation must have in place:

(a) detailed published educational objectives that are consistent with the mission of the institution and these criteria
(b) a process based on the needs of the program's various constituencies in which the objectives are determined and periodically evaluated
(c) a curriculum and processes that ensure the achievement of these objectives
(d) a system of ongoing evaluation that demonstrates achievement of these objectives and uses the results to improve the effectiveness of the program.

Criterion 3. Program Outcomes and Assessment

Applied science programs must demonstrate that graduates have:

(a) an ability to apply knowledge of mathematics, science, and applied sciences
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to formulate or design a system, process or program to meet desired needs
(d) an ability to function on multi-disciplinary teams
(e) an ability to identify and solve applied science problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of solutions in a global and societal context
(i) a recognition of the need for, and an ability to engage in life-long learning
(j) a knowledge of contemporary issues

(k) an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

Each program must have an assessment process with documented results. Evidence must be given that the results are applied to the further development and improvement of the program. The assessment process must demonstrate that the outcomes important to the mission of the institution and the objectives of the program, including those listed above, are being measured. Evidence that may be used includes, but is not limited to, the following: student portfolios, including graded assignments and/or projects; nationally-normed subject content examinations; alumni surveys that document professional accomplishments and career development activities; placement data of graduates; and employer surveys.

Criterion 4. Professional Component

The professional component requirements specify subject areas appropriate to applied science programs, but do not prescribe specific courses. The program's faculty must assure that the applied science curriculum devotes adequate attention and time to each component, consistent with the objectives of the program and institution. Students must be prepared for applied science practice through the curriculum culminating in comprehensive projects or experiences based on the cumulative knowledge and skills acquired in earlier course work. The professional component must include:

(a) a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline
(b) applied science topics appropriate to the program
(c) a general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives.

Criterion 5. Faculty

The faculty is the heart of any educational program. The faculty must be of sufficient number as determined by student enrollment and the expected outcome competencies of the program. There must be sufficient faculty to accommodate adequate levels of student-faculty interaction, including classroom teaching, laboratory and field supervision, student advising and counseling, and research, as well as, non-student interactions in university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students.

The faculty must have sufficient qualifications and must ensure the proper guidance of the program and its evaluation and development. The overall competence of the faculty may be judged by such factors as education, diversity of backgrounds, applicable experience, teaching performance, ability to communicate, enthusiasm for developing more effective programs, level of scholarship, participation in professional societies, and applicable certifications, registrations, or licensures.

Criterion 6. Facilities

Classrooms, laboratories, and associated equipment must be adequate to accomplish the program objectives and provide an atmosphere conducive to learning. Appropriate facilities must be available to foster faculty-student interaction and to create a climate that encourages professional

development and professional activities. Programs must provide opportunities for students to learn the use of modern applicable instruments and equipment. Computing and information infrastructures must be in place to support the scholarly activities of the students and faculty and the educational objectives of the institution.

Criterion 7. Institutional Support and Financial Resources

Institutional support, financial resources, and constructive leadership must be adequate to assure the quality and continuity of the applied science program. Resources must be sufficient to attract, retain, and provide for the continued professional development of a well-qualified faculty. Resources also must be sufficient to acquire, maintain, and operate facilities and equipment appropriate for the applied science program. In addition, support personnel and institutional services must be adequate to meet program needs.

Criterion 8. Program Criteria

Each program must satisfy applicable Program Criteria. Program Criteria provide the specificity needed for interpretation of the basic level criteria as applicable to a given discipline. If a program, by virtue of its title, becomes subject to two or more sets of Program Criteria, then that program must satisfy each set of Program Criteria; however, overlapping requirements need to be satisfied only once.

II. GENERAL CRITERIA FOR MASTER'S LEVEL PROGRAMS

Criteria for master's level applied science programs are inclusive of those for baccalaureate level applied science programs with the following additions: one year of study beyond the baccalaureate level and a project or research activity resulting in a report that demonstrates both mastery of the subject matter and a high level of communication skills.

III. GENERAL CRITERIA FOR TECHNICIAN LEVEL ASSOCIATE DEGREE PROGRAMS

It is the responsibility of the institution seeking accreditation of an academic applied science program to demonstrate clearly that the program meets the following criteria.

Criterion 1. Students

The quality and performance of the students and graduates is an important consideration in the evaluation of an applied science program. The institution must evaluate, advise, and monitor students to determine its success in meeting program objectives.

The institution must have and enforce policies for the acceptance of transfer students and for the validation of credit courses taken elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements.

Criterion 2. Program Educational Objectives

Each applied science program for which an institution seeks accreditation or reaccreditation must have in place:

(a) detailed published educational objectives that are consistent with the mission of the institution and these criteria

(b) a process based on the needs of the program's various constituencies in which the objectives are determined and periodically evaluated
(c) a curriculum and process that ensures the achievement of these objectives
(d) a system of ongoing evaluation that demonstrates achievement of these objectives and uses the results to improve the effectiveness of the program

Criterion 3. Program Outcomes and Assessment

Applied science technician level associate degree programs must demonstrate that their graduates have

(a) an ability to apply knowledge of mathematics, sciences, and other related disciplines
(b) an ability to conduct experiments, as well as to analyze and interpret data
(c) an ability to identify, formulate, and solve applied science problems
(d) an ability to function on teams
(e) an understanding of professional and ethical responsibility
(f) an ability to communicate effectively
(g) a recognition of the need for, and an ability to engage in life-long learning
(h) a knowledge of contemporary issues
(i) an ability to use the techniques, skills, and modern applied science tools necessary for professional practice

Each program must have an assessment process with documented results. Evidence must be given that the results are applied to the further development and improvement of the program. The assessment process must demonstrate that the outcomes important to the mission of the institution and the objectives of the program, including those listed above, are being measured. Evidence that may be used includes, but is not limited to the following: student portfolios and projects; nationally-normed subject content examinations; alumni surveys that document professional accomplishments and career development activities; employer surveys; and placement data of graduates.

Criterion 4. Curriculum

The curriculum requirements specify subject areas appropriate to applied science subjects but do not prescribe specific courses. The faculty must assure that the program curriculum devotes adequate attention and time to each component, consistent with the objectives of the program and institution. The technical component must include the equivalent of:

(a) a combination of college level mathematics and basic sciences (with experimental experience) appropriate to the discipline
(b) applied science topics
(c) a general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives

Criterion 5. Faculty

The faculty is the heart of any educational program. The faculty must be of sufficient number as determined by student enrollment and the expected outcome competencies of the program. There must be sufficient faculty to accommodate adequate levels of student-faculty interaction, including classroom teaching, laboratory and field supervision, student advising and counseling, and research, as well as non-student interactions in university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students.

The faculty must have sufficient qualifications and must ensure the proper guidance of the program and its evaluation and development. The overall competence of the faculty may be judged by such factors as education, diversity of backgrounds, applicable experience, teaching performance, ability to communicate, enthusiasm for developing more effective programs, level of scholarship, participation in professional societies, and applicable certifications, registrations, or licensures.

Criterion 6. Facilities

Classrooms, laboratories, and associated equipment must be adequate to accomplish the program objectives and provide an atmosphere conducive to learning. Appropriate facilities must be available to foster faculty-student interaction and to create a climate that encourages professional development and professional activities. Programs must provide opportunities for students to learn the use of modern applicable instruments and equipment. Computing and information infrastructures must be in place to support the scholarly activities of the students and faculty and the educational objectives of the institution.

Criterion 7. Institutional Support and Financial Resources

Institutional support, financial resources, and constructive leadership must be adequate to assure the quality and continuity of the applied science technician level associate degree program. Resources must be sufficient to attract, retain, and provide for continued professional development of a well-qualified faculty. Resources also must be sufficient to acquire, maintain, and operate facilities and equipment appropriate for the program. In addition, support personnel and institutional services must be adequate to meet program needs.

Criterion 8. Program Criteria

Each program must satisfy applicable Program Criteria. Program Criteria provide the specificity needed for interpretation of the technician level associate degree program criteria as applicable to a given discipline.

Transfer Programs

There are few discipline-specific core courses in a transfer associate degree program. Most of the professional core courses are taken after transferring to a baccalaureate degree program. Therefore, transfer programs will not be evaluated for accreditation.

IV. PROGRAM CRITERIA

PROGRAM CRITERIA FOR ENVIRONMENTAL, HEALTH, AND SAFETY AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Societies: American Industrial Hygiene Association or
American Society of Safety Engineers

These program criteria apply to applied science programs having environmental, health, and safety in their program titles. Each program evaluated under these Program Criteria must designate which society is to serve as Lead Society for that program.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Program Criteria presented herein provide the specificity needed to interpret the General Criteria with respect to the discipline of Environmental, Health, and Safety and furnish a framework upon which a given program may develop the more general Outcomes and Assessment requirements of Criteria 3.(a) through (k). In all cases, the program must demonstrate that graduates possess the knowledge, skills, and attitudes necessary to competently and ethically practice the applicable scientific, technical, and regulatory aspects of this discipline.

The basic level criteria as applied to the field of Environmental, Health, and Safety should be interpreted with respect to the following curricular content areas:

(a) environmental, health, and safety fundamentals;
(b) physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body;
(c) anticipation, identification, and evaluation of potentially hazardous agents, conditions and practices;
(d) fundamental exposure assessment techniques (both qualitative and quantitative);
(e) environmental, health, and safety data interpretation including statistical and epidemiological principles;
(f) development of hazard control designs, methods, procedures and programs;
(g) accident/incident investigation and analysis;
(h) industrial and construction safety;
(i) legal aspects of environmental, health, and safety practices;
(j) environmental, health and safety program management;
(k) hazardous materials/waste recognition, control, and remediation;
(l) air pollution fundamentals and control technologies;
(m) water pollution fundamentals and control technologies;
(n) environmental regulations and permitting processes;
(o) environmental sampling and measurement methodologies.

Note: In this context, the terms hazard and hazardous incorporate issues related to the broad context of occupational environmental, health, and safety.

Environmental, Health, and Safety programs are expected to provide breadth across the range of topics implied by the title. Thus, these curricular content areas are considered to be minimum requirements.

Other areas may be added as dictated by the Mission and Program Educational Objectives of the specific program. Additionally, the extent to which each content area is developed and emphasized in a given program must also be consistent with the program's mission and objectives. Depending on the program, a given area may be addressed in a devoted course, a portion of a course, or in an appropriate extracurricular experience. Based upon this content, program faculty are free to develop unique outcomes at appropriate functional levels that embrace Criterion 3.(a) through (k) of the General Criteria.

Baccalaureate-level Faculty

The majority of core Environmental, Health, and Safety and other supporting faculty must hold an earned doctorate. ("Core faculty" pertains to those who are teaching Environmental, Health, and Safety courses and does not include faculty members teaching courses such as epidemiology, statistics, etc.). The majority of core faculty should hold certifications issued by nationally accredited credentialing bodies such as Certified Industrial Hygienist or Certified Safety Professional. Faculty must also demonstrate external professional activity, including, but not limited to, participation on national, regional, state, and/or local committees and advisory boards, professional practice, and/or editorial reviews of professional publications.

A full-time faculty member must be identified as administratively in charge of the program.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Master's-level Admission Requirements

Admitted students must hold an earned baccalaureate that prepares them to apply the basic principles of college-level mathematics, chemistry, physics, and biology. Exceptions may be admitted with an individually documented plan of study to compensate for any deficiencies.

Master's-level Curriculum

Criteria for master's-level programs require the following additions beyond the baccalaureate level: (i) minimum of one year of study beyond the basic-level, consisting of courses with increased depth and rigor; (ii) an applied science project or research activity resulting in a report that demonstrates both mastery of the subject matter and a high level of professional and public communication skills; (iii) an adequate foundation in statistics, applied sciences, and/or related professional practice; and, (iv) advanced qualitative and quantitative problem-solving skills.

Master's-level Faculty

In addition to the general qualifications specified above for baccalaureate-level faculty, master-level faculty are expected to have demonstrated research activity appropriate to their institution's mission.

A full-time faculty member must be identified as administratively in charge of the program.

PROGRAM CRITERIA FOR HEALTH PHYSICS AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: Health Physics Society
Cooperating Society: American Nuclear Society

These criteria apply to health physics and similarly named applied science programs.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Curriculum:

The program must demonstrate that graduates possess the necessary knowledge, skills, and attitudes to competently and ethically implement and practice applicable scientific, technical, and regulatory aspects of Health Physics. More specifically, graduates must produce a culminating senior project and demonstrate competency in the following curricular areas:

a. radiation physics
b. radiation biology
c. radiation detection and measurements with laboratory experience
d. internal and external radiation dosimetry
e. principles of radiation safety and health physics
f. contemporary issues in health physics

Faculty:

The faculty must have sufficient qualifications and must ensure proper guidance of the program and its evaluation and development. The faculty primarily committed to the program must demonstrate current knowledge of health physics through education and experience. The overall competence of the faculty may be judged by such factors as education, teaching experience, diversity of backgrounds, professional experience, ability to communicate, enthusiasm for developing more effective programs, level of scholarship, participation in professional societies, and certification by the American Board of Health Physics.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Master's-Level Admission Requirements

Admitted students must hold an earned baccalaureate that prepares them to apply the basic principles of college-level mathematics, physics and biology. Exceptions may be admitted with an individually documented plan of study to compensate for any deficiencies.

Master's-Level Curriculum

Criteria for master's-level programs require the following additions beyond the baccalaureate level:

a. A minimum of one year of study beyond the basic-level, consisting of courses with increased

depth and rigor;
b. An applied science project or research activity resulting in a report that demonstrates both mastery of the subject matter and a high level of professional and public communication skills;
c. An adequate foundation in statistics, applied sciences, and/or related professional practice; and,
d. Advanced qualitative and quantitative problem-solving skills.
e. Other academic areas or specialties considered important to the program.

Master's-Level Faculty

In addition to the general qualifications specified above for baccalaureate-level faculty, master's-level faculty are expected to have demonstrated research activity appropriate to their institution's mission.

A full-time faculty member must be identified as administratively in charge of the program.

PROGRAM CRITERIA FOR INDUSTRIAL HYGIENE AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: American Industrial Hygiene Association
Cooperating Society: American Academy of Environmental Engineers

These criteria apply to industrial hygiene and similarly named applied science programs.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Curriculum

The program must demonstrate that graduates have necessary knowledge, skills, and attitudes to competently and ethically implement and practice applicable scientific, technical, and regulatory aspects of Industrial Hygiene. To this end, graduates will be prepared to anticipate, recognize, evaluate, and control exposures of workers and others to physical, chemical, biological, ergonomic, and psychosocial factors, agents, and/or stressors that can potentially cause related diseases and/or dysfunctions. More specifically, graduates must be able to:

(a) identify agents, factors, and stressors generated by and/or associated with defined sources, unit operations, and/or processes;
(b) describe qualitative and quantitative aspects of generation of agents, factors, and stressors;
(c) understand physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body;
(d) assess qualitative and quantitative aspects of exposure assessment, dose-response, and risk characterization based on applicable pathways and modes of entry;
(e) calculate, interpret, and apply statistical and epidemiological data;
(f) recommend and evaluate engineering, administrative, and personal protective equipment controls and/or other interventions to reduce or eliminate hazards;
(g) demonstrate an understanding of applicable business and managerial practices;
(h) interpret and apply applicable occupational and environmental regulations;
(i) understand fundamental aspects of safety and environmental health
(j) attain recognized professional certification

Baccalaureate-level Faculty

The majority of core Industrial Hygiene and other supporting faculty must hold an earned doctorate. ("Core Industrial Hygiene faculty" pertains to those who are teaching industrial hygiene courses and does not include faculty members teaching courses such as epidemiology, statistics, etc.). The majority of core Industrial Hygiene faculty should be Certified Industrial Hygienists. Faculty must also demonstrate external professional activity, including, but not limited to, participation on national, regional, state, and/or local committees and advisory boards, professional practice, and/or editorial reviews of professional publications.

A full-time faculty member must be identified as administratively in charge of the program.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Master's-level Admission Requirements

Admitted students must hold an earned baccalaureate that prepares them to apply the basic principles of college-level mathematics, inorganic and organic chemistry, physics, and biology. Exceptions may be admitted with an individually documented plan of study to compensate for any deficiencies.

Master's-level Curriculum

Criteria for master's-level programs require the following additions beyond the baccalaureate level: (i) minimum of one year of study beyond the basic-level, consisting of courses with increased depth and rigor; (ii) an applied science project or research activity resulting in a report that demonstrates both mastery of the subject matter and a high level of professional and public communication skills; (iii) an adequate foundation in statistics, applied sciences, and/or related professional practice; and, (iv) advanced qualitative and quantitative problem-solving skills.

Master's-level Faculty

In addition to the general qualifications specified above for baccalaureate-level faculty, master-level faculty are expected to have demonstrated research activity appropriate to their institution's mission.

A full-time faculty member must be identified as administratively in charge of the program.

PROGRAM CRITERIA FOR INDUSTRIAL MANAGEMENT OR QUALITY MANAGEMENT AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: Institute of Industrial Engineers
Cooperating Society: Society of Manufacturing Engineers

These program criteria apply to industrial management, quality management, or similarly named applied science programs that prepare college students for management roles in industry.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Curriculum

Graduates must have demonstrated:

(a) a working knowledge of algebra, calculus, physics, probability, and statistics including design of experiments;

(b) understanding of uses of management information systems, cost accounting methodology, economic analysis, principles of industrial psychology, and human resource control;

(c) and proficiency in data analysis using computer software and hardware.

Faculty

Evidence must be provided that the program faculty understand professional practice and maintain currency in their respective professional areas.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Criteria for masters level programs are the same as for basic level programs with the following additions: one year of study beyond the basic level and an applied science project or research activity resulting in a report that demonstrates both mastery of the subject matter and a high level of communication skills. Such a program must have an adequate foundation in statistics, applied sciences and/or professional practice.

PROGRAM CRITERIA FOR SAFETY AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: American Society of Safety Engineers

These program criteria apply to safety, occupational safety, industrial safety, and similarly named applied science programs.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

I.A. Program Outcomes and Assessment

Safety programs shall demonstrate that their graduates have:

1. an ability to anticipate, identify, and evaluate hazardous conditions and practices
2. an ability to develop hazard control designs, methods, procedures and programs.

Each program must have an assessment process with documented results. Evidence includes nationally-normed subject content examinations administered by nationally-accredited credentialing bodies.

The institution must have and enforce policies for the acceptance of transfer students and for the validation of credit courses taken elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements.

I.B. Curriculum

1. Graduates shall demonstrate proficiency in college algebra and statistics.
2. Graduates shall demonstrate proficiency in the application of chemistry (including organic), physics, and physiology or biology as it pertains to the practice of safety.
3. Graduates shall demonstrate proficiency in written composition and oral communications.
4. Graduates shall demonstrate knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety.
5. Safety graduates shall demonstrate knowledge of:
    a. safety and health fundamentals
    b. industrial hygiene including toxicology
    c. systems safety and associated analytical techniques
    d. legal aspects of safety, health and environmental practice
    e. environmental aspects of safety and health
    f. product safety
    g. fire prevention and protection
    h. construction safety
    i. industrial or manufacturing processes
    j. applied mechanics for safety
6. Safety graduates shall demonstrate competency in:
    a. laboratory techniques associated with industrial hygiene and basic sciences
    b. safety and health program management
    c. ergonomics

d. accident/incident investigation and analysis
e. the performance of education and training for safety
f. fundamental exposure measurement techniques
g. measurement of safety performance

7. Students shall apply principles of safety and health in a non-academic setting through an intern, cooperative, or supervised experience.

I.C. Faculty Qualifications

Programs must demonstrate that faculty members are qualified to teach the subject matter. This competence is further evidenced by participation in professional societies and applicable certifications issued by nationally-accredited credentialing bodies.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Criteria for masters-level programs are beyond those of basic baccalaureate programs, typically in the research area. Graduates of a master's level safety program must also have demonstrated knowledge of and demonstrated competencies in the same subject areas defined in the baccalaureate program requirements. They must also exhibit a high level of communication skills.

III. PROGRAM CRITERIA FOR TECHNICIAN LEVEL ASSOCIATE DEGREE PROGRAMS

III.A. Curriculum

1. Graduates shall demonstrate proficiency in the application of the foundation mathematics, including college algebra, by solving problems in technical course work.
2. Graduates shall demonstrate proficiency in the application of the basic sciences, which may include physics, chemistry and life sciences as they pertain to the practice of safety.
3. Graduates shall demonstrate proficiency in written composition and oral communications.
4. Graduates shall demonstrate technician level knowledge of modern safety practices.
5. Safety graduates shall demonstrate technician level knowledge of:

   a. safety and health fundamentals
   b. fundamentals of industrial hygiene including toxicology
   c. legal aspects of safety and health practice
   d. safety and health program management
   e. ergonomics
   f. fire prevention and protection
   g. construction safety
   h. industrial/manufacturing processes
   i. multi-disciplinary team work
   j. accident/incident investigation and analysis
   k. fundamental exposure measurement techniques
   l. measurement of safety performance

6. Safety graduates shall demonstrate:
   a. an ability to anticipate, identify, and evaluate hazardous conditions and practices
   b. an ability to implement hazard control designs, methods, procedures and programs
7. Students shall apply principles of safety and health in a non-academic setting through an intern, cooperative, or supervised experience.

III.B. Faculty Qualifications

Programs must demonstrate that faculty members are qualified to teach the subject matter. This competence is further evidenced by participation in professional societies and applicable certifications issued by nationally accredited credentialing bodies.

PROGRAM CRITERIA FOR SURVEYING, GEOMATICS AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: American Congress on Surveying & Mapping
Cooperating Society: American Society of Civil Engineers

These program criteria apply to surveying, surveying and mapping, geomatics, and similarly-named applied science programs.

I. Program Criteria for Baccalaureate Level Programs

A. Curriculum

The program must demonstrate that graduates have proficiency in one or more of the following areas: boundary and/or land surveying, geographic and/or land information systems, photogrammetry, mapping and geodesy, remote sensing, and other related areas.

B. Faculty Qualifications

The program faculty must have responsibility and sufficient authority to define, revise, implement, and achieve program objectives. The program must demonstrate that faculty members are qualified to teach the subject matter by virtue of professional licensure or by education and/or professional experience.

PROPOSED CHANGES TO THE CRITERIA

The following section presents proposed changes to these criteria. These proposals were approved by the Applied Science Accreditation Commission (ASAC) and were brought before the ABET Board of Directors on October 30, 2004 for preliminary approval. Before being approved for final implementation in the accreditation process, these proposals are published here for circulation among the institutions with accredited programs and other interested parties for review and comment.

Comments will be considered until June 15, 2005. The ABET Board of Directors will determine, based on the comments received and on the advice of the ASAC, the content of the adopted criteria. The adopted criteria will then become effective following the ABET Board of Directors Meeting in the fall of 2005 and will first be applied by the ASAC for accreditation actions during the 2006-2007 academic year.

Comments relative to the proposed criteria changes should be addressed to: Accreditation Director, Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012.

PROPOSED
PROGRAM CRITERIA FOR
SAFETY
AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS
Lead Society: American Society of Safety Engineers

These program criteria apply to safety, occupational safety, industrial safety, and similarly named applied science programs.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

A. Curriculum

Baccalaureate Safety Programs must demonstrate that graduates are able to:

1. anticipate, recognize, and evaluate hazardous conditions and practices affecting people, property and the environment.
2. develop and evaluate appropriate strategies designed to mitigate risk.
3. apply principles of safety and health in a non-academic setting through an intern, cooperative, or supervised experience.

Each program must have an assessment process with documented results. Evidence may include nationally-normed subject content examinations administered by nationally-accredited credentialing bodies. The institution must have and enforce policies for the acceptance of transfer students and for the validation of credit courses taken elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements

B. Faculty

Programs must demonstrate that faculty members are qualified to teach the subject matter. This competence is further evidenced by participation in professional societies, applicable certifications issued by nationally-accredited credentialing bodies and/or extensive experience in the safety and health field.

II. PROGRAM CRITERIA FOR MASTER'S LEVEL PROGRAMS

Criteria for masters-level programs are beyond those of basic baccalaureate programs, typically in the research area. Graduates of a master's level safety program must also have demonstrated knowledge and competencies in the same subject areas defined in the baccalaureate program requirements. They must also exhibit a high level of communication skills.

III. PROGRAM CRITERIA FOR TECHNICIAN LEVEL ASSOCIATE DEGREE PROGRAMS

A. Curriculum

Technician Level Associate Safety Programs must demonstrate that graduates are able to:

1. anticipate, recognize, and evaluate hazardous conditions and practices affecting people, property and the environment at a technician level.
2. develop and evaluate appropriate strategies designed to mitigate risk at a technician level.
3. apply principles of safety and health in a non-academic setting through an intern,

cooperative, or supervised experience.

Each program must have an assessment process with documented results. Evidence may include nationally-normed subject content examinations administered by nationally-accredited credentialing bodies. The institution must have and enforce policies for the acceptance of transfer students and for the validation of credit courses taken elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements

B. Faculty Qualifications

Programs must demonstrate that faculty members are qualified to teach the subject matter. This competence is further evidenced by participation in professional societies and applicable certifications issued by nationally-accredited credentialing bodies.