

# **Commission on Dental Accreditation**

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## **Accreditation Standards for Dental Laboratory Technology Education Programs**

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**Commission on Dental Accreditation  
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American Dental Association

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# Accreditation Standards for Dental Laboratory Technology Education Programs

## Document Revision History

<b>Date</b>	<b>Item</b>	<b>Action</b>
February 1, 2008	Accreditation Standards for Dental Laboratory Technology Education Programs	Adopted
February 1, 2008	Wording Changed to Introduce Examples of Evidence Throughout the Standards	Adopted and Implemented
July 1, 2009	Accreditation Standards for Dental Laboratory Technology Education Programs	Implemented

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## **Mission Statement of the Commission on Dental Accreditation**

The Commission on Dental Accreditation serves the public by establishing, maintaining and applying standards that ensure the quality and continuous improvement of dental and dental-related education and reflect the evolving practice of dentistry. The scope of the Commission on Dental Accreditation encompasses dental, advanced dental and allied dental education programs.

Commission on Dental Accreditation  
revised: January 30, 2001

# ACCREDITATION STATUS DEFINITIONS

## Programs Which Are Fully Operational

**APPROVAL (without reporting requirements):** An accreditation classification granted to an educational program indicating that the program achieves or exceeds the basic requirements for the accreditation period granted.

**APPROVAL (with reporting requirements):** An accreditation classification granted to an educational program indicating that specific deficiencies or weaknesses exist in one or more areas of the program. The deficiencies or weaknesses are considered of such a nature that corrections may be documented through written progress reports at six-month intervals. Evidence of compliance with the cited standards must be demonstrated within 12 months if the program is less than one year in length; 18 months if the program is between one and two years in length; and two years if the program is at least two years in length. If the deficiencies are not corrected within the specified time period, a special site visit will be conducted.

## Programs Which Are Not Fully Operational

**INITIAL ACCREDITATION:** An accreditation classification granted to any dental, advanced dental or allied dental education program which is in the planning and early stages of development or an intermediate stage of program implementation and not yet fully operational. This accreditation classification provides evidence to educational institutions, licensing bodies, government or other granting agencies that, at the time of initial evaluation(s), the developing education program has the potential for meeting the standards set forth in the requirements for an accredited education program for the specific occupational area. The classification “Initial accreditation” is granted based upon one or more site evaluation visit(s) and until the program is fully operational.

# Preface

The Accreditation Standards for Dental Laboratory Technology Education Programs have been developed for the following reasons: (1) to protect the public welfare, (2) to serve as a guide for dental laboratory technology education program development, (3) to serve as a stimulus for the improvement of established programs, and (4) to provide criteria for the evaluation of new and established programs. To be accredited by the Commission on Dental Accreditation a dental laboratory technology program must meet the standards set forth in this document. These standards are national in scope and represent the minimum requirements for accreditation.

The importance of academic freedom is recognized by the Commission. Therefore, the standards are stated in terms which allow an institution flexibility in the development of an educational program. The Commission encourages curricular experimentation, development of institutional individuality and achievement of excellence in all accredited programs.

Programs and their sponsoring institutions are encouraged to provide for the educational mobility of students through articulation arrangements and career laddering. Institutions and programs are also strongly encouraged to develop mechanisms to award advanced standing for students who have completed coursework at other educational programs accredited by the Commission on Dental Accreditation or by use of appropriate qualifying and proficiency examinations. It is expected that institutions which voluntarily seek accreditation will recognize the ethical obligation of complying with the spirit as well as the letter of these standards.

## **The Commission on Dental Accreditation**

From the early 1940's until 1975, the Council on Dental Education was the agency recognized as the national accrediting organization for dentistry and dental-related educational programs. On January 1, 1975, the Council on Dental Education's accreditation authority was transferred to the Commission on Dental Accreditation and Dental Auxiliary Education Programs, an expanded agency established to provide representation of all groups affected by its accrediting activities. In 1979, the name of the Commission was changed to the Commission on Dental Accreditation.

The Commission is comprised of 30 members. The National Association of Dental Laboratories' representative serves with other disciplines accredited by the Commission as well as public and student representatives.

## **Specialized Accreditation**

Specialized accrediting agencies exist to assess and verify educational quality in particular professions or occupations to ensure that individuals will be qualified to enter those disciplines. A specialized accrediting agency recognizes the course of instruction which comprises a unique set of skills and knowledge, develops the accreditation standards by which such educational programs are evaluated, conducts evaluation of programs, and publishes a list of accredited programs that meet the national accreditation standards. Accreditation standards are developed in consultation with those affected by the standards who represent the broad communities of interest. The Commission on Dental Accreditation is the specialized accrediting agency recognized by the United States Department of Education to accredit programs which provide basic preparation for licensure or certification in dentistry and the related disciplines.

## **Dental Laboratory Technology Accreditation**

The first educational standards for the education of dental laboratory technicians were adopted by the American Dental Association House of Delegates in 1946. These standards were rescinded and revised requirements were approved in 1957. Since then the accreditation standards have been revised six times - - 1967, 1973, 1979, 1991, 1998 and 2008 - - to reflect the dental profession and laboratory industry's changing needs and educational trends.

In an effort to provide the communities of interest with appropriate input into the latest revision of the standards, the Commission on Dental Accreditation utilized the following procedures: appointing an ad hoc committee representing broad communities of interest; holding open hearings at annual meetings of the National Association of Dental Laboratories and the American Association of Dental Schools; and widely distributing a draft of the proposed revision of the standards for review and comment. Prior to approving the revised standards in January, 2008, the Commission carefully considered comments received from all sources. The revised accreditation standards were implemented in July 2009.

# Statement of General Policy

Maintaining and improving the quality of dental laboratory technology education is a primary aim of the Commission on Dental Accreditation. In meeting its responsibilities as a specialized accrediting agency in dental laboratory technology, which is recognized by the dental profession and the United States Department of Education, the Commission on Dental Accreditation:

1. Evaluates dental laboratory technology education programs on the basis of the extent to which program goals, institutional objectives and approved accreditation standards are met.
2. Supports continuing evaluation of and improvements in dental laboratory technology education programs through institutional self-evaluation.
3. Encourages innovations in program design based on sound educational principles.
4. Provides consultation in initial and ongoing program development.

As a specialized accrediting agency, the Commission relies on an authorized institutional accrediting agency's evaluation of the institution's objectives, policies, administration, financial and educational resources and its total educational effort. The Commission's evaluation will be confined to those factors which are directly related to the quality of the dental laboratory technology program. In evaluating the curriculum in institutions that are accredited by a recognized regional accrediting agency, the Commission will concentrate on those courses which have been developed specifically for the dental laboratory technology program and core courses developed for related disciplines. When an institution has been granted an accreditation status or candidate for accreditation status by a regional agency, the Commission will accept that status as evidence that the general studies courses included in the dental laboratory technology curriculum meet accepted standards, provided the level and content of such courses are appropriate for the discipline.

This entire document constitutes the Accreditation Standards for Dental Laboratory Technology Education Programs. Each standard is numbered (e.g., 1-1, 1-2) and in bold print. Where appropriate, standards are accompanied by statements of intent that explain the rationale, meaning and significance of the standard. Expanded guidance in the form of examples to assist programs in better understanding and interpreting the must statements within the standards follow. This format is intended to clarify the meaning and application of standards for both those responsible for educational programs and those who evaluate these programs for the Commission.

# Definitions of Terms Used in Dental Laboratory Technology Accreditation Standards

The terms used in this document indicate the relative weight that the Commission attaches to each statement. Definitions of these terms are provided.

**Must:** Indicates an imperative need, duty or requirement; an essential or indispensable item; mandatory.

**Intent:** Intent statements are presented to provide clarification to the allied education programs in dental laboratory technology in the application of and in connection with compliance with the Accreditation Standards for Dental Laboratory Technology Education Programs. The statements of intent set forth some of the reasons and purposes for the particular Standards. As such, these statements are not exclusive or exhaustive. Other purposes may apply.

**Examples of evidence to demonstrate compliance may include:** Desirable condition, practice or documentation indicating the freedom or liberty to follow a suggested alternative.

## TYPES OF INSTRUCTION

**Didactic Instruction:** Refers to lectures, demonstrations or other non-laboratory instruction.

**Laboratory Instruction:** Indicates instruction in which students receive supervised experience performing techniques and procedures in the laboratory setting using study models, typodonts, etc., and their performance is evaluated by faculty according to predetermined criteria.

**Practical Experience:** Indicates instruction in which students received supervised experience in performing techniques and procedures in the laboratory setting by fabricating prostheses for patients currently under treatment, or from actual casts or impressions, and occlusal records from previously fabricated prostheses. Performance of the procedures is evaluated by faculty or laboratory supervisors according to predetermined criteria that emphasize quality, productivity and the ability to complete a clinically acceptable appliance in a reasonable amount of time.

## LEVELS OF SKILL

**Exposure:** The level of skill attained by observation of or participation in a particular activity.

**Competence:** The achievement of a predetermined level of special skill derived from education, experience and task completion obtained in the laboratory setting.

**Distance Education:** As defined by the United States Department of Education, distance education is "an educational process that is characterized by the separation, in time or place, between instructor and student. The term includes courses offered principally through the use of (1) television, audio or computer transmission; (2) audio or computer conferencing; (3) video cassettes or disks; or (4) correspondence."

## STANDARD 1 - INSTITUTIONAL EFFECTIVENESS

### Program Planning and Assessment

**1-1 The program must demonstrate its effectiveness using a formal and ongoing planning and assessment process that is systematically documented and includes:**

- a) A plan with program goals**
- b) An implementation plan**
- c) An assessment process with methods of assessment and data collection, including measures of student achievement**
- d) Use of results for program improvement**

**Intent:**

*Planning for, evaluation of and improvement of the educational quality of the program is broad-based, systematic, continuous and designed to promote achievement of program goals.*

**Examples of evidence to demonstrate compliance may include:**

- a. A Plan with Program Goals:
  - The program has a clearly stated purpose and goals which are consistent with the goals of the sponsoring institution.
  - The program's purpose is reflective of the sponsoring institution's mission and appropriate to dental laboratory technology education; the purpose addresses teaching, and as appropriate, patient care and service.
  - The Commission on Dental Accreditation expects each program to define its own goals and objectives for preparing individuals in the discipline and that one program goal is to comprehensively prepare competent individuals in the discipline.
- b. An Implementation Plan
- c. An Assessment Process with Methods of Assessment and Data Collection  
The assessment methods are related to the program goals and may include, but are not limited to:

Longitudinal Program Outcomes Measures such as:

- Consideration of course completion
- Job placement rates
- Success of graduates on state licensing and/or certification examinations
- Other measures of learning used to demonstrate effectiveness, such as tests and National Board scores, as appropriate
- Surveys of alumni, students, employers and clinical sites

Financial Resources Management Mechanisms such as:

- Budget provisions ensure the currency of learning

Faculty Coordination and Curriculum Review Mechanisms such as:

- Faculty meetings are held to coordinate curriculum content.
- Formal curriculum review is conducted.
- Periodic workshops and in-service sessions are conducted.

Admissions Management Mechanisms such as:

- The program administrator and faculty, in cooperation with appropriate institutional personnel, establish admissions procedures which contribute to the quality of the program.
- Periodic analyses support the validity of established admission criteria and procedures; adjustments are made where indicated.
- The expertise of institutional research personnel is utilized in interpreting data, correlating data with student performance, and evaluating various criteria.

d. Use of Results for Program Improvement

- Results of the assessment process are used to evaluate the program's effectiveness in meeting its goals and fostering enhanced student achievement.
- Examples of how the program has been improved

### **Financial Support**

**1-2 The program must have a strategic plan which identifies stable financial resources sufficient to support the program's stated mission, goals and objectives.**

**Intent:**

*The institution has the financial resources required to develop and sustain the program on a continuing basis. The ability to employ an adequate number of full-time faculty, replace and add equipment, procure supplies, reference material, and teaching aids is reflected in annual budget appropriations for the program. Financial allocations ensure that the program will be in a competitive position to recruit and retain qualified faculty. Annual appropriations provide for innovations and changes necessary to reflect current concepts of education in the discipline. The Commission assesses the adequacy of financial support on the basis of current appropriations. The financial resources identify stable sources of funding for the program and the degree of dependence upon a given funding source is based upon the stability of that source.*

**Examples of evidence to demonstrate compliance may include:**

- Program's mission, goals and objectives; current and previous year revenue and expenses; revenue and expense projections for the program for the next three to five years

- 1-3 The sponsoring institution must ensure that support from entities outside of the institution does not compromise the teaching, clinical and research components of the program.**

**Examples of evidence to demonstrate compliance may include:**

- Written agreement(s)
- Contract(s)/Agreement(s) between the institution/program and sponsor(s) related to facilities, funding, faculty financial support

- 1-4 The authority and final responsibility for curriculum development and approval, student selection, faculty selection and administrative matters must rest within the sponsoring institution.**

### **Institutional Accreditation**

- 1-5 Programs must be sponsored by educational institutions that are responsible for postsecondary education and accredited by an agency recognized by the United States Department of Education or an officially recognized state accrediting agency.**

**Intent:**

*Dental schools, four-year colleges and universities, community colleges, technical institutes, vocational schools, private schools, and recognized federal service training centers which offer appropriate fiscal, facility, faculty and curriculum resources are considered appropriate sponsors for the program.*

**Examples of evidence to demonstrate compliance may include:**

- Accreditation (or candidate status) from a recognized institutional (state, regional or national) accrediting agency.
- Examples of regional institutional accrediting agencies are: Middle States Association of Colleges and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges.
- Examples of national institutional accrediting agencies are: Accrediting Bureau of Health Education Schools and Accrediting Commission for Career Schools and Colleges of Technology.

- 1-6 All arrangements with co-sponsoring or affiliated institutions must be formalized by means of written agreements which clearly define the roles and responsibilities of each institution involved.**

**Examples of evidence to demonstrate compliance may include:**

- Written co-sponsoring/affiliation agreement(s)

## Community Resources

### 1-7 **There must be an active liaison mechanism between the program and the dental and allied dental professionals in the community.**

**Intent:** *The purpose of the active liaison mechanism is to provide a mutual exchange of information for improving the program and meeting employment needs of the community.*

#### **Examples of evidence to demonstrate compliance may include:**

- An advisory committee is one example of a liaison mechanism.

#### Responsibilities

- The responsibilities of the liaison mechanism or advisory committee are clearly defined in writing, recognizing that the institution has final responsibility and authority in curriculum development and approval, student selection, faculty selection and administrative matters.
- Documentation of community manpower needs is ongoing.

#### Membership

- The program has established criteria for the selection of liaison or advisory committee members.
- Consideration is given to appointing a student, recent graduate and public representative.
- If the liaison mechanism or advisory committee represents more than one discipline, representation is equitable.
- The program administrator, faculty, and appropriate institution personnel participate in the meetings as non-voting members to receive the advice and assistance of the committee.
- In appointing the advisory committee, the institution seeks recommendations from local or state dental and dental laboratory organizations.
- There is equitable representation of dentists, employed technicians, laboratory owners, as well as a student representative.
- The liaison or advisory committee membership includes dental laboratory technicians, laboratory owners and dentists who are able to provide information on the needs of the dental practitioners and dental laboratories.
- Membership list

#### Appointments

- Appointment terms are staggered to provide new input as well as continuity.

#### Meetings

- Policies regarding the liaison mechanism which outline responsibilities, appointments and meetings.
- The program administrator, faculty and appropriate institutional personnel participate in the meetings as non-voting members to receive the advice and assistance of the committee.

- The liaison or advisory committee meets at regular and frequent intervals as the program is being developed and continues to meet at regular and frequent intervals, at least once per year after the program has been implemented.
- A record of committee deliberations and activities is maintained and provided to liaison or advisory committee members.

## STANDARD 2 - EDUCATIONAL PROGRAM

### Admissions

#### 2-1 Admission of students must be based on specific written criteria, procedures and policies.

##### **Intent:**

*Because the curriculum is science-oriented and relatively difficult and enrollment is limited by facility capacity, special program admissions criteria and procedures may be necessary. The program administrator and faculty, in cooperation with appropriate institutional personnel establish admissions procedures which are non-discriminatory, contribute to the quality of the program, and allow selection of students with potential for successfully completing the program.*

##### **Examples of evidence to demonstrate compliance may include:**

###### Recruitment

- Student recruitment activities provide an adequate number of qualified applicants to ensure that standards of instruction and achievement can be maintained.
- Applicants are informed of the criteria and procedures for selection, goals of the program, curricular content, the functions of a dental laboratory technician and employment opportunities.

###### Criteria and Selection Process

- There is an established admissions committee which includes program representation.
- A high school diploma, or its equivalent, is required for admission to the program.
- Previous academic performance and/or performance on standardized national tests of scholastic aptitude or other predictors of scholastic aptitude and ability are utilized for criteria in selecting students.
- High school class rank
- Cumulative grade point averages in previous education with particular attention given to grades in science subject
- Pre-matriculation health standards, where appropriate, are identified to ensure that prospective students are qualified to undertake allied dental studies.

###### Academic Strengthening

- If academic strengthening is needed to meet basic admission criteria or to proceed satisfactorily through the curriculum, the institution and program has the resources required to assist students.
- Academic strengthening occurs prior to entry into program courses.

###### Transfer Credits

- Provisions are made to accept credits earned in another institution when a course is equivalent to, or exceeds, instruction in a course required in the curriculum

Documentation

- Copies of policies, procedures and forms used
- Copies of catalogs and program brochures used

**2-2 Admission of students with advanced standing must be based on the same standards of achievement required by students regularly enrolled in the program. Transfer students with advanced standing must receive an appropriate curriculum that results in the same standards of competence required by students regularly enrolled in the program.**

**Examples of evidence to demonstrate compliance may include:**

- Policies and procedures on advanced standing
- Results of appropriate qualifying examinations
- Course equivalency or other measures to demonstrate equal scope and level of knowledge

**2-3 The number of students enrolled in the program must be proportionate to the resources available.**

**Intent:**

*In determining the number of students enrolled in a program, careful consideration is given that the number of students does not exceed the program's resources, including, as appropriate, financial support, scheduling options, facilities including distance education and faculty.*

**Examples of evidence to demonstrate compliance may include:**

- Number of laboratory seats
- Full-time equivalent (FTE)
- Budget
- Equipment
- Scheduling

## Curriculum Management

- 2-4 The curriculum must be structured on the basis of two academic years of full-time study or its equivalent at the postsecondary level.**

**Intent:**

*Two academic years or equivalent of full-time study are required to provide both didactic and laboratory experiences sufficient to ensure that students will acquire appropriate knowledge and skill. The curriculum may be structured to allow individual students to meet performance standards specified for graduation in less than the required length as well as to provide the opportunity for students who require more time to extend the length of their instructional program. The curriculum design provides maximum opportunity for students to continue their formal education with minimum duplication of learning experiences.*

**Examples of evidence to demonstrate compliance may include:**

- Degree/certificates awarded
- Articulation agreements
- Grade transcripts
- Competency examinations
- State and national examinations

- 2-5 The curriculum must be designed to reflect the interrelationship of general studies, physical sciences, dental sciences and dental laboratory techniques to promote maximum application of basic concepts in the performance of dental laboratory techniques.**

**Intent:**

*Although there is not a prescribed sequence of instruction, the order of content presentation and learning experience is based on a reasonable relationship between the basic and applied aspects of the curriculum.*

**Examples of evidence to demonstrate compliance may include:**

- Course outlines/syllabi
- Course sequencing plan within curriculum

## Instruction

- 2-6 Written documentation of each course in the curriculum must be provided and include the course description, course outline including topics to be presented, specific instructional objectives, learning experiences including time allocated for each experience and evaluation procedures.**

**Intent:**

*Curriculum documentation is reviewed periodically and revised, as needed to reflect new concepts and techniques.*

**Examples of evidence to demonstrate compliance may include:**

- Topics to be presented
- Instructional objectives related to topics presented
- Learning experiences related to topics presented
- Evaluation procedures related to topics presented
- Time allocated for each experience

**Curriculum Content**

- 2-7 The basic curriculum must include content in the subject areas: general studies; physical sciences; dental sciences; legal, ethical and historical aspects of dentistry and dental laboratory technology; infectious disease and hazard control management; and, basic laboratory techniques.**

**Intent:**

*To ensure that foundational knowledge is established early in the program and that subsequent information is provided which is comprehensive and prepares the student to achieve competence in all components of dental laboratory practice. Content identified in each subject need not constitute a separate course, but the subject areas are included within the curriculum.*

**Examples of evidence to demonstrate compliance may include:**

The following examples of evidence apply, as appropriate, to demonstrate compliance with Standards 2-12 through 2-28.

- Course syllabi which address content in each of the listed areas (see general studies)
- An outline of the curriculum sequence including prerequisite course work
- A listing of courses which provide the major instruction in each required content area
- Course requirements
- Course length
- Laboratory hours

**General Studies**

- 2-8 The curriculum must include content in communication skills, mathematics and business principles.**

**Physical Sciences**

- 2-9 The curriculum must include content in chemistry and physics.**

## Dental Sciences

**2-10 The curriculum must include content in dental materials, tooth morphology, oral anatomy and occlusion.**

**Examples of evidence to demonstrate compliance may include:**

- Dental science content which provides the student with an understanding of physical properties, uses and manipulation of dental materials; tooth form and function; and structures of the oral cavity.
- Principles of occlusion, determinants of occlusal morphology and physiology of mandibular movements as they relate to fabrication of dental restorations, prostheses and appliances.

## Legal, Ethical and Historical Aspects

**2-11 The curriculum must include content in the legal, ethical and historical aspects of dentistry and dental laboratory technology.**

**Examples of evidence to demonstrate compliance may include:**

- The dental technology curriculum includes content in local, state and national organizations that foster certification and continuing education for dental technicians and certification of laboratories.
- The dental laboratory technology curriculum prepares students to assume a role in the dental health delivery system and perform laboratory techniques and procedures in dental laboratories or dental offices.
- The student demonstrates understanding of the work authorization/prescription of the dentist in accordance with the state dental practice act, consistent with current procedures in laboratory technology in the geographic area served by the program.

## Infectious Disease and Hazard Control Management

**2-12 Bloodborne infectious diseases: each program must present a curriculum that prepares its students to provide and/or support the provision of oral health care services to patients with bloodborne infectious diseases.**

**2-13 Appropriate content related to bloodborne infectious diseases must be integrated throughout the didactic and preclinical/clinical/laboratory components of the curriculum.**

**2-14 Applicable basic and applied concepts must be incorporated into all aspects of the educational program.**

**2-15 Each student must understand the ethical, legal and regulatory considerations related to bloodborne diseases.**

## Basic Techniques

- 2-16 All students in the educational program must receive appropriate didactic and laboratory instruction to achieve competency in general laboratory techniques, complete dentures, removable partial dentures, crown and bridge, dental ceramics and orthodontics.**

### **Intent:**

*Dental technology curriculum content includes theoretical aspects as well as practical application of the subjects. The theoretical aspect of the curriculum provides content necessary for the student to make appropriate judgments regarding the procedures an entry-level technician is expected to perform. Time devoted to, and learning experience in, laboratory techniques ensures that each student has adequate opportunity to develop competency in performing all laboratory procedures and techniques in the curriculum. Students perform routine procedures that lead to the completion of clinically acceptable dental prostheses.*

## General Laboratory Techniques

- 2-17 Graduates must be competent in general laboratory techniques, including:**
- **Evaluating impressions**
  - **Preparing and evaluating casts**
  - **Fabricating custom impression trays**
  - **Articulating casts, using non-adjustable and semi-adjustable articulators**
  - **Developing functional occlusion on articulated casts**

## Complete Dentures

- 2-18 Graduates must be competent in the fabrication of complete denture prostheses, including:**
- **Constructing base plates and occlusion rims**
  - **Arranging a balanced set-up using anatomical teeth**
  - **Contouring denture wax-ups prior to try-in and processing**
  - **Flasking, packing, processing and recovering dentures**
  - **Remounting dentures**
  - **Equilibrating occlusal discrepancies**
  - **Finishing and polishing dentures**
  - **Using a semi-adjustable articulator during fabrication of complete denture prostheses**
  - **Relining and denture repairs**
  - **Fabricating surgical templates**

## **Removable Partial Dentures**

- 2-19 Graduates must be competent in the fabrication of removable partial dentures prostheses, including:**
- **Identification of the components of a removable partial denture, including various clasp designs**
  - **Principles of surveying and design**
  - **Performing blockout procedures**
  - **Duplicating master casts**
  - **Transferring the design to the master cast**
  - **Fabricating the wax pattern**
  - **Spruing and investing patterns**
  - **Burnout and casting frameworks utilizing recognized alloys**
  - **Finishing and polishing frameworks**
  - **Evaluating the fit of the framework to the master cast**
  - **Arranging teeth on the frameworks**
  - **Waxing, processing, recovering and finishing removable partial denture bases**
  - **Various repair procedures**

## **Crown and Bridge**

- 2-20 Graduates must be competent in the fabrication of fixed prostheses, including inlays, onlays, full crowns and bridgework, including:**
- **Preparing and evaluating casts with removable dies**
  - **Trimming dies and marking margins**
  - **Identifying various margin designs**
  - **Developing wax patterns**
  - **Spruing and investing patterns**
  - **Burnout and casting restorations**
  - **Seating and finishing castings to dies**
  - **Finishing and polishing restorations**
  - **Fabricating multi-unit restorations**
  - **Fabricating restorations on various types of articulators**
  - **Developing functional occlusion on full-arch articulated casts**
  - **Soldering as a fabrication/repair procedure**

## **Dental Ceramics**

- 2-21 Graduates must be competent in the fabrication of fixed porcelain-to-metal prostheses, including:**
- **Preparing and evaluating casts with removable dies**
  - **Trimming dies and marking margins**
  - **Identifying various margin designs**
  - **Designing and developing substructure patterns**

- Spruing and investing patterns
- Burnout and casting patterns
- Seating and finishing castings to dies
- Preparing the framework to receive porcelain
- Applying and firing opaque on the framework
- Applying and firing dentin and enamel porcelain
- Contouring fired porcelain
- Performing external characterization
- Finishing and polishing non-porcelain bearing surfaces
- Operating porcelain furnace
- Pre- and post-soldering
- Porcelain margins

### Orthodontics

**2-22 Graduates must be competent in the fabrication of orthodontic appliances, including:**

- Preparing and evaluating study casts
- Identifying the components of orthodontic appliances including various types of arch wires, clasps and springs
- Identifying and categorizing of appliances
- Fabricating retainers, space maintainers and tooth moving appliances
- Contouring various types of arch wires, clasps and springs
- Fabricating, finishing and polishing autopolymerizing resin appliances
- Soldering and band placement
- Acrylic repairs

### Specialty Content

**2-23 The specialty portion of the curriculum must prepare students to competency in additional techniques in at least one or more of the following specialty areas: complete dentures, removable partial dentures, crown and bridge, dental ceramics and orthodontics.**

**Intent:**

*While it is desirable that instruction in all five specialties be offered, students need the opportunity to select from at least two specialties.*

*Curriculum content in the specialty areas includes reinforcement of techniques and procedures which were taught in the basic curriculum. A balanced emphasis is placed on incorporating productivity, flow time and quality requirements into the educational program. Dependent upon its objectives, resources and community needs, the institution may elect to extend the scope of the dental laboratory technology curriculum to include content and instruction in additional disciplines or specialized areas. Institutions with the resources are encouraged to provide instruction in more than one specialty area, thus providing the opportunity for students to elect areas of specialization on the basis of their*

*interests. Techniques and procedures are consistent with current procedures used in dental laboratory technology and the geographic area served by the program.*

### **Practical Experience**

**2-24 Practical experiences to support the development of competency in performing laboratory procedures must be provided either in the program facilities or off-site facilities.**

**Examples of evidence to demonstrate compliance may include:**

- This experience is provided by fabricating prostheses for patients currently under treatment, or from actual casts or impressions and occlusal records from previously fabricated prostheses.
- Practical experiences are evaluated by the program administrator and faculty on a continuing basis to determine the degree to which curriculum objectives are being met.
- Off-campus or extramural laboratory experiences are not required and are not considered substitutes for basic instruction to develop minimum competency.
- The program administrator and faculty are responsible for selecting the laboratories or institutions and for coordinating extramural experiences.
- The program administrator identifies individuals who will instruct, supervise, and evaluate students in extramural experiences.
- Laboratory personnel are oriented to the objectives of the program and the extramural experience, the preparation that the student has had for the laboratory assignment, and the criteria to be used in evaluating students during their assignment.
- Students are oriented to the laboratory operation.
- Laboratory procedures, instruction and evaluation are consistent with the philosophy and objectives of the dental technology program and the parent institution.
- To enable the faculty to determine the diversity of students' extramural experiences and make appropriate revisions in subsequent assignments to compensate for any deficiencies, a record of students' activities in each laboratory is maintained.
- Seminars are held periodically with students to integrate didactic and laboratory instruction with extramural experiences and to provide opportunities for students to share experiences.
- The value of extramural experiences is determined with input from the program faculty, laboratory personnel and students.
- Procedures and criteria are defined for use in evaluating the experience.
- Students are encouraged to evaluate their extramural learning experiences.
- An appropriate evaluation mechanism is utilized to help them do so.
- Formal agreements which clearly outline the commitments of the institution and the extramural facility and the responsibilities of each are established between the institution and extramural laboratories.

## Student Evaluation

**2-25 The program must employ student evaluation methods that measure all defined program and course objectives.**

**Intent:**

*Specific criteria and procedures for measuring student progress toward attainment of course objectives are developed and utilized as feedback to the student.*

**Examples of evidence to demonstrate compliance may include:**

- Students and faculty assess progress in relation to the stated course objectives.
- In establishing the level of competence required, the program faculty considers generally accepted industry standards.
- Specific criteria for measuring levels of competence are developed for each component of a given procedure.
- Students' performance is measure against accepted program standards
- Standards of performance are adjusted upward as students progress through the curriculum.

### STANDARD 3 - ADMINISTRATION, FACULTY AND STAFF

**3-1 The administrative structure must ensure the attainment of program goals.**

**Intent:**

*The administration includes formal provisions for program planning, staffing, direction, coordination and evaluation.*

**Examples of evidence to demonstrate compliance may include:**

- Program inclusion in short and long range strategic planning documents

**3-2 The program must be a recognized entity within the institution's administrative structure.**

**Intent:**

*The position of the program in the institution's administrative structure permits direct communication between the program administrator and institutional administrators who are responsible for decisions that directly affect the program.*

**Examples of evidence to demonstrate compliance may include:**

- Institutional organization flow chart

#### Program Administrator

**3-3 A program administrator who is employed full-time (as defined by the institution) and who is responsible for the day-to-day implementation of the program must be appointed and have the authority, responsibility and privileges necessary to manage the program.**

**Examples of evidence to demonstrate compliance may include:**

- Job description

**3-4 The program administrator must:**

- a. have the educational background and occupational experience necessary to understand and fulfill the program goals**
- b. have attained a higher level of education than that presented in the program, effective January 1, 2011**

- c. **have received instruction in educational methods**
- d. **have practical experience as a dental technician**

**Examples of evidence to demonstrate compliance may include:**

- Curriculum vitae
- Documentation of degree completion and/or instruction in educational methodology
- Documentation of Certified Dental Technician status

**3-5 A program administrator appointed after January 1, 2000 who is a dental laboratory technician and who has not previously served as a program administrator, must be certified by the National Board for Certification in Dental Laboratory Technology.**

**3-6 Duties: The program administrator must have authority and responsibility necessary to fulfill program goals.**

**Examples of evidence to demonstrate compliance may include:**

- The program administrator's responsibilities include participation in:
  - a. Budget preparation
  - b. Fiscal administration
  - c. Curriculum development and coordination
  - d. Selection and recommendation of individuals for faculty appointment and promotion
  - e. Supervision and evaluation of faculty, where institutional policies permit
  - f. Determining faculty teaching assignments
  - g. Determining admissions criteria and procedures
  - h. Planning and operating program facilities
  - i. Selection of extramural facilities and coordination of instruction in the facilities.
- The program administrator assesses facilities and equipment periodically in relation to current concepts of dental laboratory technology and recommends appropriate modifications.
- The program administrator's teaching contact hours and course responsibilities are less than that of a full-time instructor who does not have administrative responsibilities.
- The program administrator's teaching contact hours and course responsibilities allow sufficient time to fulfill assigned administrative responsibilities.

## Faculty

- 3-7 Dental laboratory technology faculty must have background in and current knowledge of dental laboratory technology and the specific subjects they are teaching.**

**Intent:**

*Dental laboratory technology faculty members have current knowledge at an appropriate level for the subject they teach.*

- 3-8 Faculty providing instruction must have completed instruction in educational theory and practice, e.g., curriculum development, educational psychology, test construction, measurement and evaluation. Faculty providing instruction via distance education technology must have instruction in distance education techniques and delivery.**

- 3-9 Faculty providing didactic instruction must hold a degree equivalent to the degree to be granted to their students.**

- 3-10 A dental laboratory technician who is appointed after January 1, 2000 and who has not previously served as a dental laboratory technology program faculty member, must be certified by the National Board for Certification in Dental Laboratory Technology or achieve certification within two years of appointment to the program.**

**Examples of evidence to demonstrate compliance for 3-7 to 3-10 may include:**

- Curriculum vitae
- Transcripts to document progress toward degree completion and/or instruction in educational methodology
- Documentation of Certified Dental Technician status

- 3-11 The number of faculty positions must be sufficient to implement the program's goals and objectives.**

**Intent:**

*Student contact hour loads allow sufficient time for class preparation, student evaluation and counseling, development of subject content and appropriate evaluation criteria and methods, and professional development.*

**Examples of evidence to demonstrate compliance may include:**

- To ensure development of appropriate skills, the faculty-student ratio does not exceed one instructor to ten-fifteen students during laboratory sessions.
- A ratio of more than one to fifteen is considered inadequate for laboratory technique instruction.
- These ratios are important to dental technology education to ensure development of correct skills.

**3-12 Opportunities must be provided for program faculty to continue their professional development.**

**Intent:**

*Time is provided for professional association activities, research, publishing and/or practical experience.*

**Examples of evidence to demonstrate compliance may include:**

- Faculty members are provided release time and financial support to attend at least one national or regional conference or workshop related to dental laboratory technology education each year.
- Formal in-service programs for full and part-time faculty are held regularly.
- The program/institution provides periodic in-service workshops for faculty designed to provide an orientation to program policies, goals, objectives and student evaluation procedures.

**3-13 Faculty must be ensured a form of governance that allows participation in the program and institution's decision-making processes.**

**Intent:**

*There are opportunities for the program faculty representation on institution-wide committees and the program administrator is consulted when matters directly related to the program are considered by committees that do not include program faculty.*

**3-14 A defined evaluation process must exist that ensures objective measurement of the performance of each faculty member.**

**Examples of evidence to demonstrate compliance may include:**

- The faculty evaluation system includes student, administration and peer evaluation to help identify areas of strengths and weaknesses for each faculty member.
- Measurement mechanisms address teaching, scholarship and service.
- The evaluations are communicated to each faculty member.

## **Support Staff**

### **3-15 Services of institutional support personnel must be adequate to facilitate program operation.**

#### **Examples of evidence to demonstrate compliance may include:**

- Secretarial and clerical staff is assigned to assist the administrator and faculty in preparing course materials, typing correspondence, maintaining student records, and providing supportive services for student recruitment activities and admissions.
- The secretarial personnel are located in an area which is readily accessible to the faculty.
- There are support services to assist the faculty in ordering supplies and equipment, maintaining and distributing equipment and providing other instructional aid assistance.
- Services of maintenance and custodial staff ensure that the unique requirements of the program facilities are met.
- The program faculty and students have access to available institutional specialists such as those in the areas of curriculum, testing, computer usage, counseling, and instructional resources equal to that of other programs.

## STANDARD 4 - EDUCATIONAL SUPPORT SERVICES

### Facilities

- 4-1 The program must provide adequate and appropriately maintained facilities to support the purpose/mission of the program and which are in conformance with applicable regulations.**

**Intent:**

*To ensure that physical facilities and equipment effectively accommodate the clinic and/or laboratory schedule, the number of students, faculty and staff, and include appropriate provisions for safety. Also, to ensure that the facilities permit the attainment of program goals.*

**Examples of evidence to demonstrate compliance may include:**

- The number of laboratory stations is based on the number of students admitted to a class. If the number of stations is less than the number of students in the class, one laboratory station is available for every student scheduled for each laboratory session.
- Compressed air is available in the laboratory.
- Student stations are designed and equipped for students to work while seated and include adequate ventilation and lighting, necessary utilities, and dust collection equipment.
- Environment controls and a ventilation system are provided in the laboratory.
- The location of equipment is conducive to efficient and safe utilization.

### Laboratory Facilities

- 4-2 An adequate multipurpose laboratory facility must be provided for effective instruction.**

**Intent:**

*The laboratory facilities include an appropriate number of student stations, with equipment, and space for individual student performance of laboratory procedures with instructor supervision.*

**Examples of evidence to demonstrate compliance may include:**

- The capacity of the laboratory accommodates individual student practice on a regularly scheduled basis throughout all phases of technique instruction.
- Adequacy of the laboratory capacity is determined on the basis of the extent to which each student has sufficient laboratory experience to develop competency in performing all procedures and techniques.
- Storage space accommodates instructional equipment, supplies, instruments and materials.

### **Extended Campus Facilities**

**4-3 Although it is preferable and therefore recommended that the educational institution provide physical facilities and equipment which are adequate to permit achievement of program objectives, the institution may contract for use of an existing laboratory facility if the conditions stipulated by the Commission are met. If a clinic and/or laboratory in the community is used as a primary facility for laboratory instruction, the standards specified for program facilities and the following provisions must be met:**

- **There is a formal agreement between the educational institution and agency or institution providing the facility.**
- **The program administrator retains authority and responsibility for instruction and student assignments.**
- **All students receive instruction and practical experience in the facility.**
- **Policies and procedures for operation of the facility are consistent with the philosophy and goals of the educational program.**
- **A two-year notification of termination of the contract is required to ensure that instruction will not be interrupted.**
- **A contingency plan is developed by the institution should the contract terminate.**
- **The location and time available for use of the facility are compatible with the instructional needs of the program.**
- **Clinical or laboratory instruction is provided and evaluated by program faculty.**
- **All students receive comparable instruction in the facility.**

### **Classroom Space**

**4-4 Classroom space must be provided for, and be readily accessible to, the program. Examples of evidence to demonstrate compliance may include:**

- Classroom size accommodates the number of students enrolled in each class.
- Classrooms are designed and appropriately equipped for effective instruction.

## Office Space

**4-5 Office space must be provided for the program administrator and faculty.**

**Examples of evidence to demonstrate compliance may include:**

- Privacy for student counseling is provided.
- A private office is provided for the program administrator.
- Student and program records are stored to ensure confidentiality and safety.

## Learning Resources

**4-6 The program must provide adequate and appropriately maintained learning resources to support the goals and objectives of the program.**

**Intent:**

*Instructional aids and equipment, and institutional learning resources are provided and include or provide access to a diversified collection of current dental, dental laboratory technology and multidisciplinary literature and references necessary to support teaching, student learning needs, services, and research.*

**Examples of evidence to demonstrate compliance may include:**

- Specialized reference materials are provided in the following areas: dental and oral anatomy, tooth morphology, dental materials, complete and partial removable prosthodontics, fixed prosthodontics, ceramics, orthodontics, occlusion, maxillofacial prostheses, attachments and implants used in the fabrication of fixed and removable prostheses, ethics and jurisprudence, and history of dentistry, medical and dental dictionaries, and indices are available.
- References on educational methodology
- Skeletal and anatomic models and replicas, sequential samples of laboratory procedures, slides, films, video, and other media which depict current techniques, and projection equipment are available for instruction.
- A wide range of printed materials and instructional aids and equipment are available for utilization by students and faculty including: current and back issues of major scientific and professional journals related to dentistry and dental laboratory technology/dental assisting/dental hygiene; and diversified collection of current references on dentistry and related subjects.
- There is a mechanism for program faculty to periodically review and select current titles and instructional aids for acquisition.
- Facilities, hours and policies are conducive to faculty and student use.
- Access to electronic resources

## Student Services

- 4-7 There must be specific written due process policies and procedures for adjudication of academic and disciplinary complaints, which parallel those established by the sponsoring institution.**

**Intent:**

*These policies and procedures protect the students as consumers; provide avenues for appeal and due process; ensure that student records accurately reflect work accomplished, and are maintained in a secure manner; ensure confidentiality of and access to student records is followed; ensure student participation when appropriate. The institution provides services to the allied dental students equal to those available to other students.*

**Examples of evidence to demonstrate compliance may include:**

- Personal, academic and career counseling of students
- Appropriate information about the availability of financial and health services
- Student advocacy
- Information about further educational opportunities
- Ethical standards and policies to protect the students as consumers and avenues for appeal and due process
- Student records accurately reflect work accomplished during the program and are maintained in a secure manner.
- Policies concerning confidentiality of and access to student records are followed.

## Distance Education

- 4-8 Distance education programs must meet the parent program's stated mission, goals, objectives, and standards.**

**Intent:**

*While some differences between the parent program and distance learning are inherent, the distance program is expected to comply with the spirit as well as the letter of accreditation standards.*

## STANDARD 5 - HEALTH AND SAFETY PROVISIONS

### Infectious Disease Management

- 5-1 The program must document its compliance with institutional policy and applicable regulations of local, state and federal agencies, including, but not limited to: hazardous materials, and bloodborne and infectious diseases. Policies must be provided to all students, faculty and appropriate support staff and continuously monitored for compliance. Additionally, policies on bloodborne infectious disease must be available to applicants for admission and patients.**

**Intent:**

*These policies provide for a safe environment for patients, students, faculty and staff. The confidentiality of information pertaining to the health status of each infected individual is strictly maintained.*

**Examples of evidence to demonstrate compliance may include:**

- Written protocols on pre-clinical/clinical/laboratory asepsis, infection and biohazard control and disposal of hazardous waste
- Program policy manuals
- Compliance with applicable state and/or federal regulations
- Written policies and procedures
- Established post-exposure guidelines as defined by the Centers for Disease Control and Prevention
- Admissions criteria

- 5-2 Students, faculty and appropriate support staff must be encouraged to be immunized against and/or tested for infectious diseases, such as mumps, measles, rubella, hepatitis B and tuberculosis prior to contact with patients and/or infectious objects or materials, in an effort to minimize the risk of patients and dental personnel.**

**Examples of evidence to demonstrate compliance may include:**

- Documentation
- Immunization records
- Declinations forms

## Emergency Management

- 5-3 The program must establish and enforce laboratory protocols and mechanisms to ensure the management of emergencies; these protocols must be provided to all students, faculty and appropriate staff; faculty, staff and students must be prepared to assist with the management of emergencies.**

**Examples of evidence to demonstrate compliance may include:**

- Instructional materials
- Written protocol
- Emergency Kit
- Safety devices and equipment are installed and functional.
- A first aid kit for use in managing clinic and/or laboratory accidents is accessible.
- Emergency equipment is readily accessible and functional.