REPORT OF THE REVIEW COMMITTEE ON DENTAL LABORATORY TECHNOLOGY EDUCATION TO THE COMMISSION ON DENTAL ACCREDITATION

Committee Chair: Ms. Lonni Thompson. Committee Members: Ms. Laura Andreescu, Ms. LaShun James, and Dr. Gitanjali Pinto-Sinai. Mr. Steven Pigliacelli was unable to attend the meeting. Commissioner Trainee: Mr. Tramain Watkins observed the meeting as a Commissioner trainee. Guests (Open Session Only, Virtual): Mr. Eric Thorn, staff counsel and chief staff executive, National Association of Dental Laboratories (NADL), and Ms. Rebecca Stolberg, vice president, Allied Dental Education and Faculty Development, American Dental Education Association (ADEA), attended the policy portion of the meeting. Staff Members: Ms. Jamie Asher Hernandez, manager, Allied Dental Education, and Ms. Zaira Perez Limon, senior project assistant, Allied Dental Education, Commission on Dental Accreditation (CODA). The meeting of the Review Committee on Dental Laboratory Technology Education (DLT RC) was held on July 7, 2025 via a virtual meeting.

CONSIDERATION OF MATTERS RELATED TO DENTAL LABORATORY TECHNOLOGY EDUCATION

Informational Report on Frequency of Citings of Accreditation Standards for Dental Laboratory Technology Education Programs (p. 500): The Review Committee on Dental Laboratory Technology Education (DLT RC) considered the annual report of the frequency of citings of Accreditation Standards for Dental Laboratory Technology Education Programs (**Policy Report p. 500**) and noted the most frequently cited areas of non-compliance for site visits conducted between January 1, 2022 and October 31, 2024. During this time, seven (7) dental laboratory technology site visits were conducted.

The data indicates that a total of 22 citings of non-compliance were made. Of these, 6 (27%) were related to Standard 1–Institutional Effectiveness; 8 (36.4%) were related to Standard 2–Educational Program; 7 (32%) were related to Standard 3–Administration, Faculty and Staff; 0 (0%) was related to Standard 4–Educational Support Services; and 1 (4.6%) was related to Standard 5–Health and Safety Provisions.

Analysis of the data indicates the most frequently cited area of non-compliance was within Standard 2-Educational Program. Standard 2-6 received four (4) total citings. Standard 2-6, f requiring that written documentation of each course in the curriculum be provided to students and include specific criteria and evaluation procedures for course grade calculation, received three (3) citations. The second most frequently cited area of non-compliance was within Standard 3-Administration, Faculty and Staff. Standard 3-7 received two (2) total citings related to faculty providing instruction having current educational theory and, e.g., curriculum development, educational psychology, test construction, measurement and evaluation. Finally, the third most frequently cited area of non-compliance was within Standard 1-Institutional

Effectiveness. Standard 1-1 related to a formal and ongoing planning and outcomes assessment process that is systematically documented and annually evaluated and each subpart of Standard 1-1 (Standard 1-1 a-d), received one (1) citing each.

Recommendation: This report is informational in nature and no action is required.

Report of the Ad Hoc Committee on Dental Laboratory Technology Standards (p. 501): The Review Committee on Dental Laboratory Technology Education (DLT RC) reviewed the report of the Ad Hoc Committee on Dental Laboratory Technology Standards **(Policy Report p. 501)**, including the background and history of the Ad Hoc Committee composition, and the Committee's recommendations for revision of the Accreditation Standards for Dental Laboratory Technology Education Programs. The composition of the Ad Hoc Committee included available members of the Dental Laboratory Technology Education Review Committee; nominated representatives from the National Association of Dental Laboratories (NADL) and the National Board for Certification in Dental Laboratory Technology (NBC); and an appointed dental laboratory technology educator and dental laboratory technology site visitor. The DLT RC noted that extensive revisions were proposed to the Definition of Terms and Standards 1 through 5 of the Accreditation Standards for Dental Laboratory Technology Education Programs.

The DLT RC reviewed the proposed revisions and noted that the Ad Hoc Committee conducted a systematic review of the Standards, reviewing and discussing each Standard as it relates to digital workflow. The Ad Hoc Committee determined that digital workflow should be incorporated into several Standards pertaining to curriculum and facilities (Standard 2-Educational Program and Standard 4-Educational Support Services).

The DLT RC also noted that the Ad Hoc Committee on Dental Laboratory Technology engaged in an extensive discussion related to the length of dental laboratory technology programs, as well as the required degree conferred in accordance with CODA Standards. The Standards currently require that a dental laboratory technology program be at least two (2) academic years of full-time instruction or its equivalent at the post-secondary level. The Committee noted that the time commitment for a two-year program may be a distractor to potential students; however, the scope and depth of content needed for a dental laboratory technician currently necessitates a two-year curriculum. The DLT RC noted that the Ad Hoc Committee on Dental Laboratory Technology Standards discussed whether a reconfigured one-year program focusing on general entry level skills may support entry into the profession with basic knowledge of the profession, while a two-year program option could expand on the basic knowledge regarding complexity in certain areas of focus (i.e., advanced dental areas and/or discipline specific content). The DLT RC believed that CODA should seek comments on the proposed revisions to the Accreditation Standards for Dental Laboratory Technology Education Programs (**Appendix 1**), and additionally request feedback from the communities of interest related to the program length for dental laboratory technology education programs. Therefore, a question has been added to the introduction of the proposed revisions asking whether the program length of a dental laboratory technology education program should remain at least two (2) academic years or its equivalent, or whether the program length should be revised to at least one (1) academic year or its equivalent

for entry into the profession, with instruction limited to general laboratory techniques, and require programs to extend length beyond one (1) academic year for instruction in additional functions (i.e., advanced dental areas and/or discipline specific content).

Following consideration, the DLT RC believed that the proposed revisions found in **Appendix 1**, should be circulated to the communities of interest for a period of one (1) year to obtain feedback on the draft document, including a hearing in conjunction with the October 2025 American Dental Association Annual Meeting and March 2026 American Dental Education Association Annual Session, with comments to be reviewed by the DLT Review Committee and Commission.

> **Recommendation:** It is recommended that the Commission on Dental Accreditation direct the proposed revisions to the Accreditation Standards for Dental Laboratory Technology Education Programs (**Appendix 1**) be circulated to the communities of interest for one (1) year, with Hearings conducted in conjunction with the October 2025 American Dental Association Annual Meeting and March 2026 American Dental Education Association Annual Session, with review of all comments received by the Review Committee and Commission in Summer 2026.

Consideration of Proposed Revision to the Accreditation Standards for Dental Laboratory Technology Education Programs Related to Faculty to Student Ratios (p. 502): On January 28, 2025, the Commission on Dental Accreditation (CODA) received a letter from Dr. Jason A. Tanguay, chair, American Dental Association Council on Dental Education and Licensure (ADA-CDEL) requesting that the Commission consider Resolution 401H-2024 Increasing Allied Personnel in the Workforce, adopted by the 2024 ADA House of Delegates (**Appendix 1, Policy Report p. 502**).

As noted in the ADA-CDEL letter:

> *Resolution 401H-2024 Increasing Allied Personnel in the Workforce urges the Commission on Dental Accreditation to review its Accreditation Standard for all allied dental education programs regarding faculty-to-student ratios to align with the Accreditation Standard for Predoctoral Dental Education Program. Further, this resolution urges CODA to adopt the following language currently in the Accreditation Standards for Predoctoral Dental Education for the Accreditation Standards for each of the allied dental education programs: The number, distribution, and qualifications of faculty and staff must be sufficient to meet the dental program's stated purpose/mission, goals, and objectives, at all sites where required educational activity occurs.*

In consideration of this matter, the ADA-CDEL noted testimony emphasizing the importance of consistency across Accreditation Standards for all allied and predoctoral dental education programs. The ADA-CDEL expressed a position that, while workforce-related concerns fall outside CODA's direct purview, ensuring consistency in faculty-to-student ratio Standards across all allied dental education programs aligns with CODA's mission of supporting and improving program quality and enhances program flexibility while maintaining educational

quality and standards. Therefore, the ADA-CDEL believes these revisions will promote consistency and program autonomy, thereby supporting the educational quality of allied dental education programs.

At this meeting, the Dental Laboratory Technology Review Committee (DLT RC) considered the letter from the ADA-CDEL (**Appendix 1, Policy Report p. 502**). The DLT RC discussed that the faculty-to-student ratios for Dental Laboratory Technology were reviewed and discussed by the Ad Hoc Committee on Dental Laboratory Technology Standards in conjunction with the comprehensive review and revision of the Accreditation Standards for the Dental Laboratory Technology Education Programs. The DLT RC agreed that the faculty-to-student ratio for the laboratory component of the dental laboratory technology education programs of 1 faculty to 12 students is appropriate. The DLT RC concluded there should be no revision to the faculty-to-student ratios for dental laboratory technology education programs at this time.

> **Recommendation:** It is recommended that the Commission on Dental Accreditation direct there be no revision at this time to the Accreditation Standards for Dental Laboratory Technology Education Programs related to faculty-to-student ratios.

CONSIDERATION OF MATTERS RELATING TO MORE THAN ONE REVIEW COMMITTEE

Matters related to more than one review committee are included in a separate report.

CONSIDERATION OF MATTERS RELATED TO ACCREDITATION STATUS

Matters related to accreditation status of programs are included in a separate report.

Respectfully submitted,

Ms. Lonni Thompson
Chair, Review Committee on Dental Laboratory Technology Education

Commission on Dental Accreditation

Proposed Revisions to Accreditation Standards for Dental Laboratory Technology Education Programs

Additions are Underlined
~~Strikethroughs~~ indicate Deletions

Accreditation Standards for Dental Laboratory Technology Education Programs

Introductory Comment from the Commission on Dental Accreditation:

Question for Public Comment:

In addition to comments on this proposed revised Standards document, the Dental Laboratory Technology Review Committee and Commission are seeking feedback related to the program length for dental laboratory technology education programs. The Standards currently require that a dental laboratory technology program be at least two (2) academic years of full-time instruction or its equivalent at the post-secondary level.

The Review Committee and Commission would like to accept comments on the required program length. Specifically, should the program length of a dental laboratory technology education program remain at least two (2) academic years of full-time instruction or its equivalent, or should the Commission revise the Standards to reduce program length to at least one (1) academic year of full-time instruction or its equivalent for entry into the profession, with instruction limited to general laboratory techniques, and require programs to extend program length beyond one (1) year for instruction in additional functions (i.e., advanced dental areas and/or discipline specific content)?

Accreditation Standards for Dental Laboratory Technology Education Programs

Commission on Dental Accreditation
401 N. Michigan Ave., Suite 3300
Chicago, Illinois 60611
312-440-4653
https://coda.ada.org/

Effective ~~August 11, 2023~~

Accreditation Standards for Dental Laboratory Technology Education Programs

Document Revision History

Date	Item	Action
February 12, 2021	Accreditation Standards for Dental Laboratory Technology Education Programs	Adopted
August 6, 2021	Revised Mission Statement	Adopted
January 1, 2022	Revised Mission Statement	Implemented
January 1, 2022	Accreditation Standards for Dental Laboratory Technology Education Programs	Implemented
August 11, 2023	Revised Accreditation Status Definitions	Adopted and Implemented
DATE	Revision to Standards 2-1, 2-2, 2-4, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20, 3-5, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 4-1, 4-2, 4-4, 4-6, 4-7, 4-8, 5-1 and 5-3	Adopted
DATE	Revision to Standards 2-1, 2-2, 2-4, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20, 3-5, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 4-1, 4-2, 4-4, 4-6, 4-7, 4-8, 5-1 and 5-3	Implemented

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Mission Statement of the Commission on Dental Accreditation

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Commission on Dental Accreditation
Adopted: August 5, 2016; Revised August 6, 2021

ACCREDITATION STATUS DEFINITIONS

PROGRAMS THAT ARE FULLY OPERATIONAL:

Approval *(<u>without</u> reporting requirements*): An accreditation classification granted to an educational program indicating that the program achieves or exceeds the basic requirements for accreditation.

Approval *(<u>with</u> 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. Evidence of compliance with the cited standards or policies must be demonstrated within a timeframe not to exceed eighteen (18) months if the program is between one and two years in length or two years if the program is at least two years in length. If the deficiencies are not corrected within the specified time period, accreditation will be withdrawn, unless the Commission extends the period for achieving compliance for good cause. Identification of new deficiencies during the reporting time period will not result in a modification of the specified deadline for compliance with prior deficiencies.

Circumstances under which an extension for good cause would be granted include, but are not limited to:

- sudden changes in institutional commitment;
- natural disaster which affects affiliated agreements between institutions; faculty support; or facilities;
- changes in institutional accreditation;
- interruption of an educational program due to unforeseen circumstances that take faculty, administrators or students away from the program.

Revised: 8/17; 2/16; 5/12; 1/99; Reaffirmed: 8/23; 8/18; 8/13; 8/10, 7/05; Adopted: 1/98

PROGRAMS THAT ARE NOT FULLY OPERATIONAL: A program which has not enrolled and graduated at least one class of students/residents and does not have students/residents enrolled in each year of the program is defined by the Commission as not fully operational. The accreditation classification granted by the Commission on Dental Accreditation to programs which are not fully operational is "initial accreditation." When initial accreditation status is granted to a developing education program, it is in effect through the projected enrollment date. However, if enrollment of the first class is delayed for two consecutive years following the projected enrollment date, the program's accreditation will be discontinued, and the institution must reapply for initial accreditation and update pertinent information on program development. Following this, the Commission will reconsider granting initial accreditation status. The developing education program must not enroll students/residents/fellows with advanced standing beyond its regularly enrolled cohort, while holding the accreditation status of "initial accreditation."

Initial Accreditation is the accreditation classification granted to any dental, advanced dental or allied dental education program which is 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 educational program for the specific occupational area. The classification "initial accreditation" is granted based upon one or more site evaluation visit(s).

Revised: 8/23; 7/08; Reaffirmed: 8/18; 8/13; 8/10; Adopted: 2/02

Other Accreditation Actions:

Teach-Out: An action taken by the Commission on Dental Accreditation to notify an accredited program and the communities of interest that the program is in the process of voluntarily terminating its accreditation due to a planned discontinuance or program closure. The Commission monitors the program until students/residents who matriculated into the program prior to the reported discontinuance or closure effective date are no longer enrolled.

Reaffirmed: 8/23; 8/18; Adopted: 2/16

Discontinued: An action taken by the Commission on Dental Accreditation to affirm a program's reported discontinuance effective date or planned closure date and to remove a program from the Commission's accredited program listing, when a program either 1) voluntarily discontinues its participation in the accreditation program and no longer enrolls students/residents who matriculated prior to the program's reported discontinuance effective date or 2) is closed by the sponsoring institution.

Intent to Withdraw: A formal warning utilized by the Commission on Dental Accreditation to notify an accredited program and the communities of interest that the program's accreditation will be withdrawn if compliance with accreditation standards or policies cannot be demonstrated by a specified date. The warning is usually for a six-month period, unless the Commission extends for good cause. The Commission advises programs that the intent to withdraw accreditation may have legal implications for the program and suggests that the institution's legal counsel be consulted regarding how and when to advise applicants and students of the Commission's accreditation actions. The Commission reserves the right to require a period of non-enrollment for programs that have been issued the Intent to Withdraw warning.

Revised: 2/16; 8/13; Reaffirmed: 8/23; 8/18

Withdraw: An action taken by the Commission when a program has been unable to demonstrate compliance with the accreditation standards or policies within the time period specified. A final action to withdraw accreditation is communicated to the program and announced to the communities of interest. A statement summarizing the reasons for the Commission's decision and comments, if any, that the affected program has made with regard to this decision, is available upon request from the Commission office. Upon withdrawal of accreditation by the Commission, the program is no longer recognized by the United States Department of Education. In the event the Commission withdraws accreditation from a program, students currently enrolled in the program at the time accreditation is withdrawn and who successfully complete the program, will be considered graduates of an accredited program. Students who enroll in a program after the

accreditation has been withdrawn will not be considered graduates of a Commission accredited program. Such graduates may be ineligible for certification/licensure examinations.

Revised 6/17; Reaffirmed: 8/23; 8/18; 8/13; 8/10, 7/07, 7/01; CODA: 12/87:9

Denial: An action by the Commission that denies accreditation to a developing program (without enrollment) or to a fully operational program (with enrollment) that has applied for accreditation. Reasons for the denial are provided. Denial of accreditation is considered an adverse action.

Reaffirmed: 8/23; 8/18; 8/13; Adopted: 8/11

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~~ 33 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 seven times—in 1967, 1973, 1979, 1991, 1998, 2008, and 2021 to reflect the dental profession and laboratory profession'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 February 2021, the Commission carefully considered comments received from all sources. The revised accreditation standards were implemented in January 2022.

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 dental laboratory technology educational programs 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.

Should: Indicates a method to achieve the standard; highly desirable, but not mandatory.

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 demonstrations, supervised experience enabling performing techniques and procedures in the laboratory setting using study models, typodonts, etc., and established clear protocols with predetermined criteria for student performance evaluation.

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 KNOWLEDGE

Familiarity: A simplified knowledge for the purposes of orientation and recognition of general principles.

In-depth: A thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding (highest level of knowledge).

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 dental laboratory setting through continuous participation and attendance.

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."~~
Distance education means education that uses one or more of the technologies listed below to deliver instruction to students/residents/fellows who are separated from the instructor or instructors and to support regular and substantive interaction between the students and the instructor or instructors, either synchronously or asynchronously.
• the internet;
• one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;
• audio conference; or
• Other media used in a course in conjunction with any of the technologies listed above.
See the Commission's Evaluation and Operational Policies and Procedures for the complete policy and definition.

~~**Special Needs:** Those patients whose medical, physical, psychological, cognitive or social situations make it necessary to consider a wide range of assessment and care options in order to provide dental treatment as well as modify dental routines in order to provide dental treatment for that individual. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical conditions, significant physical limitations, and vulnerable older adults.~~

STANDARD 1 - INSTITUTIONAL EFFECTIVENESS

Program Planning and Assessment

1-1 The program must demonstrate its effectiveness through a formal and ongoing planning and outcomes assessment process that is systematically documented and annually evaluated. This process must include the following:

a) Program goals that include, but are not limited to a purpose, mission statement, and student learning outcomes that are consistent with the goals of the sponsoring institution and appropriate to dental technology education
b) An implementation plan
c) An assessment process which includes 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:
- A clearly stated program purpose and mission statement is reflective of the sponsoring institution's mission and vision and appropriate to dental laboratory technology education; the purpose addresses teaching, and as appropriate, patient care and service.
- List of the program's goals which are consistent with the goals of the sponsoring institution.
- The Commission on Dental Accreditation expects each program to regularly examine and re-define its own goals, objectives, and program and student learning outcomes as necessary, based on the current needs of the program, for preparing 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:

Program Outcomes Measures such as:
- Consideration of course completion
- Job placement rates

- Success of graduates on certification examinations
- Other measures of learning used to demonstrate effectiveness, as appropriate
- Surveys of alumni, students, employers and clinical sites
- Degree/certificate completions

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 and assessed to implement curriculum improvements as necessary.
- 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 institutional 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)/Affiliation(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) with termination clause

Community Resources

1-7 There must be an active liaison mechanism between the program and 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. Meetings, either in-person or virtual, should be held at least once per year.

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. Minimum admissions requirements must include high school diploma or its equivalent. Applicants must be informed of the criteria and procedures for selection, goals of the program, curricular content, course transferability, and employment opportunities for dental laboratory technicians.

Intent:
Because the curriculum is science and technology-oriented 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

- High school diploma, or its equivalent.
- Previous education with attention given to grades in science and technology subjects, where appropriate.
- Pre-matriculation health standards, where appropriate, are identified to ensure that prospective students are qualified to undertake 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 have the resources required to assist students.
- Academic strengthening occurs prior, or concurrently while matriculating, 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.
- Copies of catalogs and program brochures.

2-2 Admission of students with advanced standing must be based on the same criteria required of all applicants admitted to the program. If a program considers students for advanced standing, credit must be awarded based on equivalent didactic, laboratory content and student achievement.

Intent:
Policies ensure that advanced standing credit is awarded based on equivalent coursework, knowledge, and/or experience that meets or exceeds content required in the curriculum and results in equivalent student competence. Advanced standing refers to applicants that may be considered for admission to a training program whose curriculum has been modified after taking into account the applicant's past experience. Examples include transfer from a similar program at another institution, completion of training at a non-CODA accredited program, or documented practice experience in the given discipline. Acceptance of advanced standing students/residents will not result in an increase of the program's approved number of enrollees. Applicants for advanced standing are expected to fulfill all of the admission requirements mandated for students/residents in the conventional program and be held to the same academic standards. Advanced standing students/residents, to be certified for completion, are expected to demonstrate the same standards of competence as those in the conventional 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, including off-campus sites, hybrid, or online courses, careful consideration is given to ensure that the number of students does not exceed the program's resources, including, as

appropriate, financial support, scheduling options, facilities, equipment, supplies, and faculty.

Examples of evidence to demonstrate compliance may include:

- Number of laboratories and seats
- Full-time equivalent (FTE)
- Budget
- Equipment inventory list
- Scheduling
- Faculty/student ratio

Curriculum Management

2-4 The curriculum must include at least two academic years of full-time instruction or its equivalent at the postsecondary level. The scope and depth of the curriculum must reflect the objectives and philosophy of higher education. The college catalog must list the degree awarded and course titles and descriptions. In a two-year college setting, the graduates of the program must be awarded a certificate of program completion or an associate degree ~~or certificate of completion.~~ In a four-year college or university, graduates of the program must be awarded an associate degree, post-degree certificate, or baccalaureate degree.

Intent:
Minimum of at least 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
- Curriculum mapping
- Institutional catalog with program requirements

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

Instruction

2-6 Written documentation for each course in the curriculum must be provided to students and include:

a) Course title, number, and description
b) Instructor(s) of record and contact information
c) Course content outline including topics to be presented
d) Specific instructional objectives, student learning outcomes and assessment mechanisms
e) Course schedule including time allocated for didactic and laboratory learning experiences
f) Specific criteria and evaluation procedures for course grade calculation

Intent:
Curriculum documentation is current, reviewed periodically and revised, and should include:
a) Topics related to course content
b) Instructional objectives and learning experiences are related to topics
c) Evaluation procedures measure instructional objectives
d) Course or weekly schedule

Examples of evidence to demonstrate compliance may include:

- Course syllabi
- Criteria for grade calculation
- Rubrics for student learning outcomes
- Institutional and program grading policies
- Course knowledge and/or skill assessments
- Course schedules to include laboratory activities and evaluations

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 2-7 through 2-21.

- 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
- Time allocated for the didactic and clinical/laboratory experiences
- Student participation in events organized by the program (invited speakers, lectures, workshops, field trips, etc.)
- Student participation in professional events (conferences, symposia, workshops, meetings, webinars, tradeshows, etc.)

General Studies

2-8 The curriculum must include content at the in-depth level in communication skills, mathematics and business principles relative to dental laboratory technology.

Intent:
Content in general studies prepares the student to work and communicate effectively with dental professionals and patients, and provides a foundation of knowledge for professional success

Examples of evidence to demonstrate compliance may include:

Topics in:
a) Communications (written, interpersonal, verbal and non-verbal)
b) Weights and measures, percentages and metric system
c) Budgeting
d) Case scheduling, time management
e) Management
f) Marketing
g) Compliance with applicable local, state, and federal regulations

Physical Sciences

2-9 The curriculum must include content in chemistry and physics relative to dental laboratory technology.

Intent:
Content in physical sciences should prepare the student with an understanding of physical and chemical characteristics related to dental materials and processes, and utilized in proper fabrication of dental restorations, prostheses and appliances.

Examples of evidence to demonstrate compliance may include:
- State of matter
- Chemical bonding
- Acid-base theory
- Gases
- Solutions
- Heat and Temperature
- Light
- Lever System
- Force Principles

Dental Sciences

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

Intent:
Dental science content should provide the student with an understanding of physical properties, uses and manipulation of dental materials; tooth form and function; and structures of the oral cavity as related to proper application for use in fabricating dental restorations. Content should include principles of occlusion, determinants of occlusal morphology and physiology of mandibular movements.

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 to include:

a) Organizations that advance certification and continuing education for dental technicians and certification of laboratories.
b) Work authorization/prescription of the dentist in accordance with the state dental practice act, consistent with current procedures in dental laboratory technology in the geographic area served by the program.
c) Federal and state laws and regulations related to operating a dental laboratory and/or working as a dental laboratory technician.
d) HIPAA laws related to health care professionals
e) Ethics for health care professionals

Intent:
The dental laboratory technology curriculum prepares students to assume a professional and ethical standard to understand the basic foundation in which the fundamentals of dental laboratory technology were established.

Infectious Disease and Hazard Control Management

2-12 The program must present appropriate, ethical, legal and regulatory content related to bloodborne infectious diseases throughout the didactic and preclinical/clinical/laboratory components of the curriculum. Content in bloodborne infectious diseases must be presented at least once during each academic term.

General Laboratory Techniques

2-13 The curriculum must include didactic as well as laboratory instruction in the following areas: general laboratory techniques, complete dentures, removable partial dentures, fixed prosthodontics, implants, 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 and access available resources. 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.

2-14 Students must demonstrate competence in general laboratory techniques for analog and digital workflows, including:

a) Evaluating impressions
b) Preparing and evaluating ~~casts~~ models
c) Fabricating custom impression trays
d) Articulating ~~casts~~models, using non-adjustable and semi-adjustable articulators
e) Developing functional occlusion ~~on articulated casts~~
f) Recognizing variables that affect materials
g) Utilizing various methods of fabrication ~~(i.e., analog and/or digital)~~
h) Demonstrating safe handling of equipment and materials
~~i) Digital workflow (i.e., didactic and/or laboratory procedures)~~

Intent:
Dental technology curriculum content includes various methods of fabrication; students should be exposed to new technologies and processes.

Complete Dentures

2-15 Students must demonstrate competence in the knowledge and skill required to fabricate complete denture prostheses, both analog and digital workflow, including:

a) Identifying various methods of fabrication
b) Constructing base plates and occlusion rims
c) Arranging a balanced denture set-up using anatomical teeth
d) Contouring trial dentures prior to try-in and processing
e) Equilibrating occlusal discrepancies
f) Nesting, and printing and/or milling

g ~~f)~~ Finishing and polishing
h g)Using a semi-adjustable articulator during analog fabrication, and digital articulation during digital workflow
i ~~h~~) Relining and denture repairs
j ~~i~~) Fabricating surgical templates
k) Demonstrating quality assurance and quality control to evaluate effectiveness of completed services, and implementing improvements.

Intent:
Dental laboratory technology curriculum content includes various methods of fabrication; students should be exposed to new technologies and processes.

Removable Partial Dentures

2-16 Students must demonstrate competence in the knowledge and skill required to fabricate removable partial dentures prostheses, both analog and digital workflow, including:

a) Identification of the components of a removable partial denture, including various clasp designs
b) Principles of surveying and design
c) Performing blockout procedures
d) Creating/Fabricating ~~patterns~~ frameworks
e) Nesting, and printing and/or milling
fe) Processing frameworks
g~~f~~) Finishing and polishing frameworks
hg) Evaluating the fit of the framework to the master cast
i~~h~~) Arranging teeth on the frameworks
j~~i~~) Processing and finishing removable partial denture bases
k~~j~~) Various repair procedures
l) Demonstrating quality assurance and quality control to evaluate effectiveness of completed services, and implementing improvements.

Intent:
Dental laboratory technology curriculum content includes various methods of fabrication; students should be exposed to new technologies and processes.

Fixed Prosthodontics

2-17 Students must demonstrate competence in the knowledge and skill required to fabricate fixed prostheses, both analog and digital workflow, including: ~~inlays, onlays, full crowns and fixed partial dentures:~~

a) **Preparing and evaluating ~~casts~~ models with removable dies**
b) **Recognizing variables that affect materials**
c) **Identifying various methods of fabrication**
d) **Preparing margins utilizing magnification**
e) **Identifying various margin and preparation designs and their applications**
f) **Designing and fabricating full contour restorations, including inlays, onlays, full crowns, and fixed partial dentures**
g) **Designing and fabricating substructures**
h) **Nesting, and printing and/or milling**
~~i~~h) **Seating fixed restoration utilizing magnification**
j) **Work with various materials for fixed prosthodontics**
k~~i~~) **Preparing substructure to receive porcelain**
l~~j~~) **Applying and processing porcelain to substructure(s)**
m~~k~~) **Contouring ~~ceramic materials~~ anatomical crowns**
n~~l~~) **Developing functional occlusion on full arch articulated ~~casts~~ models**
o~~m~~) **Adjusting occlusal and interproximal contacts**
p~~n~~) **Performing optical external characterization**
q~~o~~) **Finishing and polishing restorations**
~~p) Fabricating single and multi-unit restorations~~
r~~q~~) **Demonstrating safe handling of all equipment associated with ~~ceramic~~ fixed prosthodontics**
s) **Demonstrating quality assurance and quality control to evaluate effectiveness of completed services, and implementing improvements.**

Intent:
Dental technology curriculum content includes various methods of fabrication, the program should introduce students to new technologies and processes. ~~wherever possible, including but not limited to: pressing fabrication processes.~~

Orthodontics

2-18 Students must demonstrate competence in the knowledge and skill necessary to fabricate orthodontic appliances, both analog and digital workflow, including:

a) **Recognizing variables that affect materials**
b) **Preparing and evaluating orthognathic study ~~casts~~ models**
c) **Identifying the components of orthodontic appliances**
d) **Identifying and categorizing types of appliances**
e) **Fabricating retainers, space maintainers and tooth moving appliances**
f) **Contouring various types of arch wires, clasps and springs**

g) Fabricating, finishing and polishing appliances
h) Soldering and band placement
i) Appliance repairs
j) Demonstrating quality assurance and quality control to evaluate effectiveness of completed services, and implementing improvements.

Intent:
Dental laboratory technology curriculum content includes various methods of fabrication; students should be exposed to new technologies and processes.

Discipline Specific Content

2-19 The discipline specific portion of the curriculum must prepare students to competence in additional techniques in at least one or more of the following discipline specific areas: complete dentures, removable partial dentures, fixed prosthodontics, orthodontics, and implants.

Intent:
While it is desirable that instruction in all discipline specific areas be offered, students need the opportunity to select from at least ~~two~~ one or more discipline specific areas.

Curriculum content in the discipline specific 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 discipline specific areas. Institutions with the resources are encouraged to provide instruction in more than one discipline specific 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

2-20 Practical experiences to support the development of competency in performing laboratory procedures must be provided either in the program facilities or off-site facilities.

The following practical experiences must be provided:
a. fabricating prostheses and oral appliances for patients currently under

treatment, or from actual models, digital scans, or impressions and occlusal records from previously fabricated prostheses

b. periodic seminars with students to integrate didactic and laboratory instruction with extramural experiences and to provide opportunities for students to share experiences

Intent:

Off-campus or extramural laboratory experiences are not required and are not considered substitutes for basic instruction to develop minimum competency.

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

- ~~This experience is provided by fabricating prostheses for patients currently under treatment, or from actual 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 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

2-21 Student evaluation methods must include defined objective criteria that measure all defined course objectives and/or student learning outcomes.

Intent:
Specific criteria and procedures for measuring student progress toward attainment of course objectives and/or student learning outcomes are developed and utilized as feedback to the student.

Examples of evidence to demonstrate compliance may include:

- In establishing the level of competence required, the program faculty considers generally accepted profession standards.
- Specific criteria for measuring levels of competence are developed for each component of a given procedure.
- Students' performance is measured against accepted program's student learning outcomes.
- Standards for performance are increased 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
- Instructional program review

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 representation on college or university committees

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 and must 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 or be enrolled in a program progressing toward that degree
c) current background in educational theory and methodology

d) have practical experience as a dental technician

e) be certified by the National Board for Certification in Dental Laboratory Technology

Examples of evidence to demonstrate compliance may include:

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

3-5 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 and oversight 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

3-6 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.

3-7 **Faculty providing instruction must have current educational theory and, 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.**

3-8 **Faculty providing didactic instruction must hold a degree higher than the degree being granted to their students or an equivalent degree to the degree being granted to their students plus five years of documented experience in the dental laboratory technology discipline area they would be teaching.**

3-9 **A dental laboratory technician who is appointed 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 or be a licensed dentist.**

Examples of evidence to demonstrate compliance for 3-7 to 3-9 may include:

- Biosketch
- Degree transcripts or transcripts documenting annual progress toward degree completion
- Documentation of current educational methodology
- Documentation of current Certified Dental Technician status or dental license
- ~~Faculty participation in events organized by the program (invited speakers' lectures, workshops, field trips, etc.)~~
- ~~Faculty participation in professional events (conferences, symposia, workshops, meetings, webinars, tradeshows, etc.)~~

3-10 **The number of faculty positions must be sufficient to implement the program's goals and objectives. During laboratory instruction, ~~T~~ the faculty to student ratio~~, during laboratory instruction,~~ must not exceed one instructor for every twelve students.**
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:

- ~~A ratio of more than one to twelve is considered inadequate for laboratory technique instruction.~~
- Class schedules reflecting faculty to student ratios ~~These ratios are important to dental technology education~~ to ensure development of ~~correct~~ laboratory skills.

3-11 Practical experiences must be evaluated by the program administrator and faculty, including:

a) determining the degree to which curriculum objectives are being met;
b) selecting the laboratories or institutions and coordinating extramural experiences;
c) identifying individuals who will instruct, supervise, and evaluate students in extramural experiences;
d) orienting laboratory personnel and students 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; and
e) assessing the value of extramural experiences with input from the program faculty, laboratory personnel and students.

Examples of evidence to demonstrate compliance may include:

- 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 institution.
- A record of students' activities in each laboratory is maintained to enable the faculty to determine the diversity of students' extramural experiences and make appropriate revisions in subsequent assignments to compensate for any deficiencies.
- Procedures and criteria are defined for use in evaluating the experience.
- Students are encouraged to evaluate their extramural learning experiences.
- 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.

3-12~~11~~ 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~~12~~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~~ The program administrator is consulted when matters directly related to the program are considered by committees that do not include program faculty.

3-14~~13~~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~~14~~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:
The physical facilities and equipment effectively accommodate the scheduled number of students, faculty and staff, and include appropriate safety provisions for students, faculty, and staff~~. The facilities~~ to permit the attainment of program goals.

Examples of evidence to demonstrate compliance may include:

- ~~The~~Class schedule to demonstrate the number of laboratory work stations is based on the number of students registered to a class.
- ~~Compressed air is available and adequate in the laboratory where needed.~~
- ~~Student work stations are designed and equipped for students to work while seated in OSHA compliant seats and include adequate ventilation, lighting, air hose, necessary utility outlets, and dust collection equipment.~~
- ~~Environment controls are available with adequate heat and air management. A ventilation exhaust system is provided in all laboratory facilities.~~
- ~~The location of equipment is conducive to efficient and safe utilization.~~
- ~~Electrical power is adequate to support all laboratory equipment.~~
- ~~Laboratory layout is American Disabilities Act (ADA) compliant.~~
- Floor plan with the Americans with Disabilities Act (ADA) and Occupational and Safety Health Administration (OSHA) compliant student ~~work station~~ workstation and equipment placement ergonomically designed and equipped for students to work and include adequate ventilation, lighting, compressed air, necessary utility outlets, and dust collection equipment.
- Blueprints to show electrical and utility services, environmental controls with heat and air management, compressed air (as needed), and a ventilation exhaust system are adequate to support all laboratory equipment and activities.

Laboratory Facilities

4-2 An adequate multipurpose laboratory facility must be provided for effective instruction and include:

a) Sufficient and secure storage space for instructional equipment, supplies, and materials, including hazardous materials.

b) Policies and procedure for safe operation and maintenance of laboratory equipment.
c) An appropriate number of work stations with necessary dental equipment for students.
d) Sufficient dental laboratory technology equipment including digital workflows.

Examples of evidence to demonstrate compliance may include:

- Facility schedule
- Equipment inventory
- Posted safety policies, protocols relative to operation and maintenance of equipment
- Floor plan or blueprints

Off-Campus Facilities

4-3 It is preferable and therefore recommended that the educational institution provide physical facilities and equipment which are adequate to permit achievement of program goals and objectives. If the institution finds it necessary to contract for use of an existing laboratory facility for laboratory instruction, then the following conditions must be met in addition to all existing standards:

a) There is a formal agreement between the educational institution and agency or institution providing the facility.
b) The program administrator retains authority and responsibility for instruction and student assignments.
c) All students receive instruction and practical experience in the facility.
d) Policies and procedures for operation of the facility are consistent with the philosophy and goals of the educational program.
e) Laboratory instruction is provided and evaluated by program faculty.
f) All students receive comparable instruction in the facility.
g) Availability of the facility accommodates the scheduling needs of the program.
h) Notification for termination of the contract ensures that instruction will not be interrupted for currently enrolled students.

Intent:
This standard applies to sites off-campus used for dental laboratory technology education. All students assigned to a particular facility are expected to receive instruction in that facility. This standard does not apply to individual dental laboratory and dental office sites used for externship/practical experience.

Classroom Space

4-4 Classroom space for didactic instruction 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, equipped, and maintained ~~and appropriately equipped~~ for effective instruction.

Office Space

4-5 An office must be provided for the program administrator and full-time faculty.

Intent:
The program administrator often meets with students which requires privacy. Sensitive and confidential student and program records are also safely stored in locked cabinets and drawers. Full-time faculty are also required to hold regular office hours and require a designated office space in which they may consult students.

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. All students, including those receiving education at an off campus facility or through distance education, are provided access to learning resources.

Examples of evidence to demonstrate compliance may include:

- 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, digital technologies, and implants used in the fabrication of fixed and removable prostheses, ethics and jurisprudence, and history of dentistry, medical and

dental dictionaries, and indices.

- 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.
- Instructional or media technologies
- 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.
- The mechanism or procedure for program faculty to periodically review and select current titles and instructional aids for acquisition.
- Facility, hours and policies conducive to faculty and student use.
- Student access to a virtual library and 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 dental laboratory technology 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 The use of ~~D~~distance education ~~programs~~ must meet the ~~parent~~ program's stated mission, goals, objectives, and standards.

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

Examples of evidence to demonstrate compliance may include:

- Institutional distance education training policies and procedures.
- Evidence of reported use of distance education.

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 diseases must be available to applicants for admission.

Intent:
Policies provide for a safe environment for students, faculty and staff. The program should establish and enforce a mechanism to ensure laboratory asepsis, infection and biohazard control, and disposal of hazardous waste. Policies and procedures should be in place to provide for a safe environment for students, faculty and staff. The confidentiality of information pertaining to the health status of each individual is strictly maintained. This standard applies to all program sites where laboratory education is provided.

Examples of evidence to demonstrate compliance may include:

- Written protocols on laboratory asepsis, infection and biohazard control and disposal of hazardous waste.
- Safety Data Sheets are currently and readily accessible to students, faculty and staff.
- Written disinfection procedures.
- Program policy manuals listing emergency protocols.
- Compliance with applicable state and/or federal regulations.
- Established post-exposure guidelines as defined by the Centers for Disease Control and Prevention.
- Documentation of training record for students, faculty, and appropriate staff.

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' impressions and/or infectious objects or materials, in an effort to minimize the risk to students, faculty, and appropriate staff.

Intent:
Students, faculty and/or staff many enter a live laboratory setting where they may be exposed to infectious pathogens during their practical experience course, field trips, and community service.

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.

Intent:
The program maintains emergency equipment and supplies that are sufficient and up-to-date.

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.