

INFORMATIONAL REPORT ON FREQUENCY OF CITINGS OF ACCREDITATION STANDARDS FOR DENTAL LABORATORY TECHNOLOGY EDUCATION PROGRAMS

Background: The Accreditation Standards for Dental Laboratory Technology Education Programs were approved by the Commission on Dental Accreditation at its August 9, 2013 meeting and were implemented on January 1, 2014. Since that date, 15 dental laboratory technology site visits have been conducted by visiting committees of the Commission utilizing the January 2014 Standards. At the time of this report, the Standards include 62 “must” statements that address 161 required areas of compliance. This report presents the number of times areas of non-compliance were cited by visiting committees conducting site visits January 1, 2014 through December 31, 2021. If special (focused or comprehensive), pre-enrollment, or pre-graduation site visits were conducted during this period, citings from those visits are also included.

Analysis: The data in **Appendix 1** indicates that a total of 23 citings of non-compliance were made. Of these, 4 (17.4%) were related to Standard 1–Institutional Effectiveness; 10 (43.5%) were related to Standard 2–Educational Program; 6 (26.1%) were related to Standard 3–Administration, Faculty and Staff; 1 (4.3%) was related to Standard 4–Educational Support Services; and 2 (8.7%) were related to Standard 5–Health and Safety Provisions. Due to the limited number of site visits and a total of 23 citings of non-compliance, a trend in the data cannot be identified.

Summary: The Commission will continue to receive reports annually summarizing the updated data on the frequency of citings of individual Standards. The revised Accreditation Standards for Dental Laboratory Technology Education Programs was implemented on January 1, 2022. Therefore, this report concludes the Frequency of Citings for the January 2014 Accreditation Standards for Dental Laboratory Technology Education Programs.

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

**ACCREDITATION STANDARDS FOR DENTAL LABORATORY TECHNOLOGY
EDUCATION PROGRAMS
(January 2014 Standards)**

Frequency of Citings Based on Required Areas of Compliance

Total Number of Programs Evaluated: 15
January 1, 2014 through December 31, 2021

STANDARD 1- INSTITUTIONAL EFFECTIVENESS – 11 Required Areas of Compliance

| <u>Non- Compliance Citings</u> | <u>Accreditation Standard</u> | Required Areas of Compliance | |
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| | 1-1 | The program must demonstrate its effectiveness using a formal and ongoing planning and assessment process that is systematically documented and includes: | |
| 1 | | a. | A plan with program goals |
| | | b. | An implementation plan |
| 1 | | c. | An assessment process with methods of assessment and data collection, including measures of student achievement |
| 2 | | d. | Use of results for program improvement |
| | 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. | |
| | 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. | |
| | 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. | |
| | 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. | |

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

STANDARD 2- EDUCATIONAL PROGRAMS – 104 Required Areas of Compliance

| <u>Non-Compliance Citings</u> | <u>Accreditation Standard</u> | Required Areas of Compliance |
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| | 2-1 | Admission of students must be based on specific written criteria, procedures and policies. |
| | 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. |
| | | 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. |
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| | 2-3 | The number of students enrolled in the program must be proportionate to the resources available. |
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| | 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. |
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| | 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. |
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| | 2-6 | Written documentation of each course in the curriculum must be provided to students and include: |

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| | | a. | The course name and number |
| | | b. | Course description |
| | | c. | Primary faculty and contact information |
| 1 | | d. | Course outline including topics to be presented |
| 1 | | e. | Specific instructional objectives |
| 1 | | f. | Learning experiences including time allocated for each experience |
| | | g. | Specific criteria for course grade calculation |
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| | 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. |
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| 2 | 2-8 | | The curriculum must include content at the in-depth level in communication skills, mathematics and business principles relative to dental laboratory technology. |
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| 1 | 2-9 | | The curriculum must include content at the in-depth level in chemistry and physics relative to dental laboratory technology. |
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| | 2-10 | | The curriculum must include content in dental materials, tooth morphology, oral anatomy and occlusion. |
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| | 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 regulations related to operating a dental laboratory and/or working as a dental laboratory technician. |
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| | 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. |
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| | 2-13 | Appropriate content related to bloodborne infectious diseases must be integrated throughout the didactic and preclinical/clinical/laboratory components of the curriculum. |
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| | 2-14 | Each student must understand the ethical, legal and regulatory considerations related to bloodborne diseases. |
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| | 2-15 | The curriculum must include didactic as well as laboratory instruction in the following areas: general laboratory techniques, complete dentures, removable partial dentures, crown and bridge, dental ceramics and orthodontics. |
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| | 2-16 | Students must demonstrate competence in general laboratory techniques, including: |
| | | a. Evaluating impressions |
| | | b. Preparing and evaluating casts |
| | | c. Fabricating custom impression trays |
| | | d. Articulating casts, using non-adjustable and semi-adjustable articulators |
| | | e. Developing functional occlusion on articulated casts |
| | | f. Recognizing variables that affect materials |
| | | g. Various manufacturing methods |
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| | 2-17 | Students must demonstrate competence in the knowledge and skill required to fabricate complete denture prostheses, including: |
| | | a. Identifying various fabricating methods |
| | | b. Constructing base plates and occlusion rims |
| | | c. Arranging a balanced set-up using anatomical teeth |
| | | d. Contouring denture wax-ups prior to try-in and processing |
| | | e. Flasking, processing and recovery |
| | | f. Remounting |
| | | g. Equilibrating occlusal discrepancies |
| | | h. Finishing and polishing |

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| 1 | | i. | Using and semi-adjustable articulator during fabrication |
| | | j. | Reclining and denture repairs |
| 1 | | k. | Fabricating surgical templates |
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| | 2-18 | Students must demonstrate competence in the knowledge and skill required to fabricate removable partial dentures prostheses, 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. | Duplicating master casts |
| | | e. | Transferring the design |
| | | f. | Fabricating wax pattern |
| | | g. | Spruing and investing patterns |
| | | h. | Burnout and casting frameworks utilizing recognized alloys |
| | | i. | Finishing and polishing frameworks |
| | | j. | Evaluating the fit of the frameworks to the master cast |
| | | k. | Arranging teeth on the frameworks |
| | | l. | Waxing, processing, recovering and finishing removable partial denture bases |
| | | m. | Various repair procedures |
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| | 2-19 | Students must demonstrate competence in the knowledge and skill required to fabricate fixed prostheses, including inlays, onlays, full crowns and bridgework, including: | |
| | | a. | Preparing and evaluating casts with removable dies |
| | | b. | Recognizing variables that affect materials |
| | | c. | Identifying various fabricating methods |
| | | d. | Trimming dies and marking margins utilizing magnification |
| | | e. | Identifying various margin and preparation designs and their applications |
| | | f. | Developing wax patterns |
| | | g. | Spruing and investing patterns |
| | | h. | Burnout and casting restorations |

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| | | i. | Seating castings to dies utilizing magnification |
| | | j. | Adjusting occlusal and interproximal contacts |
| | | k. | Finishing and polishing restorations |
| | | l. | Fabricating multi-unit restorations |
| | | m. | Fabricating restorations on various types of articulators |
| | | n. | Developing functional occlusion on full-arch articulated casts |
| | | o. | Soldering as a fabrication/repair procedure |
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| | 2-20 | | Students must demonstrate competence in the knowledge and skill required to fabricate ceramic prostheses, including: |
| | | a. | Preparing and evaluating casts with removable dies |
| | | b. | Recognizing variables that affect materials |
| | | c. | Identifying various fabricating methods |
| | | d. | Trimming dies and marking margins utilizing magnification |
| | | e. | Identifying various margin and preparation designs and their application |
| | | f. | Designing and developing substructure patterns |
| | | g. | Processing patterns |
| | | h. | Seating ceramic restoration utilizing magnification |
| | | i. | Preparing substructure to receive porcelain |
| | | j. | Applying and firing porcelain to substructure |
| | | k. | Contouring fired porcelain |
| | | l. | Performing optical external characterization |
| 1 | | m. | Designing and fabricating porcelain margins |
| | | n. | Demonstrating safe handling of all equipment associated with ceramic restorations |
| | 2-21 | | Students must demonstrate competence in the knowledge and skill necessary to fabricate orthodontic appliances, including: |
| | | a. | Recognizing variables that affect materials |
| | | b. | Preparing and evaluating study casts |
| | | 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 |

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| | | g. | Fabricating, finishing and polishing autopolymerizing resin appliances |
| | | h. | Soldering and band placement |
| | | i. | Appliance repairs |
| | 2-22 | The specialty portion of the curriculum must prepare students to competence 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. | |
| | 2-23 | Practical experiences to support the development of competency in performing laboratory procedures must be provided either in the program facilities or off-site facilities. | |
| 1 | 2-24 | Student evaluation methods must include defined objective criteria that measure all defined course objectives. | |
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STANDARD 3- FACULTY AND STAFF – 19 Required Areas of Compliance

| <u>Non-Compliance Citings</u> | <u>Accreditation Standard</u> | Required Areas of Compliance |
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| | 3-1 | The administrative structure must ensure the attainment of program goals. |
| | 3-2 | The program must be a recognized entity within the institution's administrative structure. |
| | 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. |
| | 3-4 | The program administrator must: |
| | | a. have the educational background and occupational experience necessary to understand and fulfill the program goals |

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| | | 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 |
| 1 | | e. | be certified by the National Board for Certification in Dental Laboratory Technology |
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| | 3-5 | | The program administrator must have authority and responsibility necessary to fulfill program goals. |
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| | 3-6 | | Dental laboratory technology faculty must have background in and current knowledge of dental laboratory technology and the specific subjects they are teaching. |
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| 2 | 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. |
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| | 3-8 | | Faculty providing didactic instruction must hold a degree equivalent to the degree to be granted to their students or show documented annual progress toward achieving that degree. |
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| 1 | 3-9 | | 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. |
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| | 3-10 | | The number of faculty positions must be sufficient to implement the program's goals and objectives. |
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| | 3-11 | | Opportunities must be provided for program faculty to continue their professional development. |
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| 1 | 3-12 | | Faculty must be ensured a form of governance that allows participation in the program and institution's decision-making processes. |

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| | 3-13 | A defined evaluation process must exist that ensures objective measurement of the performance of each faculty member. |
| 1 | 3-14 | Services of institutional support personnel must be adequate to facilitate program operation. |

STANDARD 4- EDUCATIONAL SUPPORT SERVICES – 20 Required Areas of Compliance

| <u>Non-Compliance Citings</u> | <u>Accreditation Standard</u> | Required Areas of Compliance | |
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| | 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. | |
| | 4-2 | An adequate multipurpose laboratory facility must be provided for effective instruction and include: | |
| | | a. | Sufficient storage space for instructional equipment, supplies, instruments and materials |
| | | b. | Policies and procedure for safe operation and maintenance of laboratory equipment |
| | | c. | An appropriate number of work stations for simultaneously engaged students |
| | 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: | |
| | | 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. |

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| | | 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. | A two-year notification of termination of the contract is required to ensure that instruction will not be interrupted. |
| | | f. | A contingency plan is developed by the institution should the contract terminate. |
| | | g. | The location and time available for use of the facility are compatible with the instructional needs of the program. |
| | | h. | Clinical or laboratory instruction is provided and evaluated by program faculty. |
| | | i. | All students receive comparable instruction in the facility. |
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| | 4-4 | | Classroom space must be provided for, and be readily accessible to, the program. |
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| | 4-5 | | Office space must be provided for the program administrator and faculty. |
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| 1 | 4-6 | | The program must provide adequate and appropriately maintained learning resources to support the goals and objectives of the program. |
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| | 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. |
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| | 4-8 | | Distance education programs must meet the parent program's stated mission, goals, objectives, and standards. |

STANDARD 5- HEALTH AND SAFETY PROVISIONS – 7 Required Areas of Compliance

| <u>Non-Compliance Citings</u> | <u>Accreditation Standard</u> | Required Areas of Compliance |
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| 1 | 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. |
| 1 | | Additionally, policies on bloodborne infectious diseases must be available to applicants for admission. |
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| | 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. |
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| | 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. |

**INFORMATIONAL REPORT ON FREQUENCY OF CITINGS OF
ACCREDITATION STANDARDS FOR DENTAL LABORATORY TECHNOLOGY
EDUCATION PROGRAMS**

Background: The Accreditation Standards for Dental Laboratory Technology Education Programs were approved by the Commission on Dental Accreditation at its February 12, 2021 meeting and were implemented on January 1, 2022. Since that date, no (0) dental laboratory technology site visits have been conducted by visiting committees of the Commission utilizing the January 2022 Standards. At the time of this report, the Standards include 62 “must” statements that address 161 required areas of compliance. This report presents the number of times areas of non-compliance were cited by visiting committees conducting site visits January 1, 2022 through October 31, 2022. If special (focused or comprehensive), pre-enrollment, or pre-graduation site visits were conducted during this period, citings from those visits are also included.

Analysis: The distribution of citings is presented in Appendix 1. There are no (0) citings presented as there were no (0) dental laboratory technology site visits conducted by visiting committees of the Commission utilizing the January 2022 Standards. To ensure confidentiality, Frequency of Citings Reports will not be made available where a limited number (three or less) of programs have been site visited.

Summary: The Commission will continue to receive reports annually summarizing the updated data on the frequency of citings of individual Standards.

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

**ACCREDITATION STANDARDS FOR DENTAL LABORATORY TECHNOLOGY
EDUCATION PROGRAMS
(January 2022 Standards)**

Frequency of Citings Based on Required Areas of Compliance

Total Number of Programs Evaluated: 0
January 1, 2022 through October 31, 2022

To ensure confidentiality, Frequency of Citings Reports will not be made available in disciplines where a limited number (three or less) of programs have been site visited.

STANDARD 1- INSTITUTIONAL EFFECTIVENESS – 11 Required Areas of Compliance

STANDARD 2- EDUCATIONAL PROGRAMS – 92 Required Areas of Compliance

STANDARD 3- FACULTY AND STAFF – 19 Required Areas of Compliance

STANDARD 4- EDUCATIONAL SUPPORT SERVICES – 20 Required Areas of Compliance

STANDARD 5- HEALTH AND SAFETY PROVISIONS – 7 Required Areas of Compliance