

School of Dental Medicine

Actions Taken to Improve Student Learning Based on Analysis of Results



Graduate

*Programs included:

- Doctor of Dental Medicine (DMD)

Examples

- Required students to provide a written explanation of material from an exam as a remediation effort
- Made the decision to offer the exams used for the accreditation exam preparation more frequently throughout the year and earlier in the program
- Altered the format of multiple choice exams to better reflect format of the accreditation preparation exams

Program name	Doctor of Dental Medicine (DMD)
Delivery mode	Face to Face
Outcome being summarized	Applied Knowledge: Students will demonstrate applied knowledge of the dental profession.
Program level example	<p>The purpose of Dental Medicine (DMD) program is to develop leaders who possess the knowledge, skills, values, and experience to provide outstanding dental care to underserved and rural communities. The program focuses on comprehensive patient-centered care, the application of public health principles, along with clinical and oral medicine to provide evidence-based primary oral health care.</p> <p>The program assesses outcomes around Foundational Knowledge, Applied Knowledge, Qualitative Dental Assessments, Quantitative Dental Assessments, Management of Dental Cases, and Professional Behavior.</p> <p>In addition to mastering the clinical skills needed to practice dentistry within the dental education framework, students must demonstrate applied knowledge of the dental profession through Clinical Integrated Exams (CIEs). CIEs are Objective Structured Clinical Examination (OSCE) type examinations administered throughout the curriculum. The program’s accrediting agency, Commission on Dental Accreditation (CODA), accepts CIEs as a valid assessment modality to demonstrate competency with complex topics, and the CIEs prepare students for the integrated case-based National Board Dental Examinations (NBDE). The criterion for success is all students must pass each CIE exam or must successfully complete remediation for each deficient content area by the end of the spring term.</p> <p>In 2015-16, 18 CIEs were given to the Class of 2016. All students successfully passed within the requirements however, the majority of the students did not pass on the first attempt. A low pass rate was expected due to the difficulty of these examinations. Students were required to successfully remediate the material by providing a written explanation of the concepts within the examination question in order to meet the requirements.</p> <p>Faculty members have seen the effectiveness of evaluating students’ knowledge through CIEs and were motivated to begin incorporating them earlier in the curriculum beginning with the 2016-17 year. Increasing the use of CIEs earlier in the curriculum required faculty training to develop these assessments.</p>

Therefore, the decision to increase the number of CIEs from 18 exams in 2015-16 to 31 exams in 2016-17 and 2017-18, and to administer the CIEs earlier in the curriculum (D3 and D4 years, instead of in the D4 year only), was made to improve knowledge and skill attainment.

In 2016-17 and 2017-18, 31 CIEs were administered to the Class of 2017 and Class of 2018. The criterion for success were met for both years with all students successfully passing within the requirements. In 2016-17, there was a 93% first-time pass rate on the CIE exams. In 2017-18, there was a 92% first-time pass rate on the CIE exams.

The National Board Dental Examinations (NBDE) will move to a CIE format in 2020. **In anticipation of the NBDE change, the SoDM has reduced the number of multiple-choice exams and augmented or replaced them with CIEs.** Multiple-choice exams are faculty-written course embedded weekly didactic examinations. Students are taking these exams while also taking CIEs in the program. Faculty will keep working with students to reinforce students' skills to better addressing the weakness in the respective assessment modalities.

The 2021 cohort will be the first to take the newly integrated board exam in August 2020 (the D3 year). In preparation for this new integrated board exam, all CIE exams will be given during the D3 year, prior to the integrated board exam being administered.

Data gleaned from these test experiences will enable us to compare current curriculum outcomes to the new exam results in determining needed curriculum changes.