

## Program-Level Assessment: Annual Report

Program Name (no acronyms): Graduate Orthodontics	Department: Orthodontics
Degree or Certificate Level: Master	College/School: Center for Advanced Dental Education
Date (Month/Year): 7/2022	Assessment Contact: Ki Beom Kim
In what year was the data upon which this report is based collected? 2021	
In what year was the program's assessment plan most recently reviewed/updated? 2021	
Is this program accredited by an external program/disciplinary/specialized accrediting organization? Yes	

### 1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please list the full, complete learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

We assess student performance via tests that are required for passing required coursework and via assessment of clinical treatment on patients. These items were assessed: conducting a clinical examination, listing orthodontic problems, prioritizing orthodontic problems, recognizing, and listing pathology, formulating a diagnosis, formulating a treatment plan, and performing treatment.

We conduct various exit interviews.

We evaluate performance on standardized examinations.

We conduct two mid-course and final oral examinations.

### 2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe the artifacts in detail and identify the course(s) in which they were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

The learning objectives was evaluated through the various test results, clinical treatment outcomes, ongoing assessment from the individual instructors and the American Board of Orthodontics test results.

### 3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and **include them in/with this report document** (please do not just refer to the assessment plan).

The Core Graduate Orthodontics Faculty Committee meets weekly and evaluates student performance include didactic and clinical courses constantly. The outcome assessment from the American Board of Orthodontics written examination were analyzed by the category. For proficiency of clinical skills, an informal formative assessment occurs with daily verbal feedback and a formalized summative assessment each semester. The assessment data is reviewed once a year at the called meeting of the entire orthodontic faculty

### 4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

As part of our program learning outcomes, most of the residents will be able to pass the written portion of the American Board of Orthodontics certifying examination. The residents must maintain a B average for all didactic and clinical courses. This was achieved.

- All 13 residents successfully passed the American Board of Orthodontics Phase II written examination.
- All 13 residents demonstrated proficiency in clinical skills consistent with those exhibited by experienced orthodontists. This was declared unanimously by the faculty at a meeting of the faculty just before graduation.

All 13 residents conducted an original research project and conducted a successful oral defense.

## 5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

Based on the American Board of Orthodontics written exam and clinical exam results, our students have shown improvement in terms of their test scores and number of board certifications.

## 6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

The Core Graduate Orthodontic Faculty meets every week and continuously evaluates student performance. Once the American Board of Orthodontics Written Exam and Clinical Board Exam results are available, the Core Graduate Orthodontic Faculty analyses the results and present to the Annual Orthodontic Faculty meeting with further assessment.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies

- Course content
- Teaching techniques
- Improvements in technology
- Prerequisites
- Course sequence
- New courses
- Deletion of courses
- Changes in frequency or scheduling of course offerings

Changes to the Assessment Plan

- Student learning outcomes
- Artifacts of student learning
- Evaluation process
- Evaluation tools (e.g., rubrics)
- Data collection methods
- Frequency of data collection

Please describe the actions you are taking as a result of these findings.

The Core Graduate Orthodontic Faculty uses measures of student performance on each of the four parts (Basic and Applied Biomedical Sciences, Clinical Sciences "A", Clinical Sciences "B", and Clinical Case Analysis) of the American Board of Orthodontics written exam to alter the curriculum and faculty.

- Basic and Applied Biomedical Sciences parts include anatomical sciences, biochemistry, developmental anatomy, facial growth and development, and Microbiology. We have updated the lecture for growth and development sections.
- Clinical Sciences "A" include Occlusion, Temporomandibular Disorders, X-ray, Cephalometrics, and Applied Topics. We have altered the course contents for temporomandibular disorders and added a

few more clinical hands-on classes. We have increased the time for cephalometrics course and covered various cephalometric analyses include 3D analysis.

- Clinical Sciences “B” include Orthodontic Materials and Techniques, Orthopedics/Biomechanics, Diagnosis and Treatment Planning, Orthodontic Specialties, and Implantology. We have invited outside expertise to cover these topics in addition to our current faculty.

Clinical Case Analysis: we have altered the Diagnosis Seminar format to make it like the American Board of Orthodontists Scenario Based exam format. We have added, altered, and deleted various didactic and clinical courses as the result of the examination results.

If no changes are being made, please explain why.

## 7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

The orthodontic Practice Management course has been extended to two-semester courses and added more content. Multiple faculty members and outside experts have been added to expand the topics. Cephalometric course hours were increased, and more hands-on sections were implemented.

B. How has this change/have these changes been assessed?

The learning objectives were evaluated through the various test results, classroom discussion, and clinical outcome.

C. What were the findings of the assessment?

Our students continue to demonstrate the better understanding of the complexity of orthodontic diagnosis and treatment planning. Based on the American Board of Orthodontics written exam and clinical exam results, our students have shown improvement in terms of their test scores and number of board certifications.

D. How do you plan to (continue to) use this information moving forward?

The program director and the Core Graduate Orthodontic Committee meet weekly to evaluate the status of learning outcomes based on the comments from the faculty and discuss the possible ways to improve the outcomes.

**IMPORTANT: Please submit any assessment tools (e.g., artifact prompts, rubrics) with this report as separate attachments or copied and pasted into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document.**