



Consortium of Operative Dentistry Educators (CODE)

Annual National Report: Regions I - VI

Prepared by:

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National Director's Update

At the Annual National CODE meeting on February 25th, 2016, which was held during the 2016 Annual Meeting of the Academy of Operative Dentistry, it was announced that I would assume the responsibilities of National Director for the Consortium. Unfortunately, Dr. Ed DeSchepper, the National Director for the previous three years, was unable to attend the meeting due to travel problems related to poor weather at O'Hare airport. On behalf of all of the member schools and their designated CODE representatives, I would like to officially recognize Dr. DeSchepper for his leadership as well as thank him for his guidance during last winter's transition of directorship.

My first year as National Director has been interesting, informative, and rewarding as I had the distinct privilege of participating in two fall regional meetings outside of my usual "home" Region II fall meeting. It was a pleasure to be introduced to the CODE representatives from Region I (Pacific) and Region VI (South) during my visit to their host schools; the University of the Pacific and the University of Louisville. Although these two regions are separated by thousands of miles, it became readily apparent that each of us shares the same challenges and concerns in our daily work regardless of where we dedicate our time. Following the lively discussions that the National Agenda fostered, I couldn't help but feel reassured that given the commitment, knowledge, and skills of those present, no issue we face could be deemed to be insurmountable.

I would like to thank Dr. Oanh Le, our Region I Director, and Dr. Phil Buchanan who hosted their region's CODE Representatives at the University of the Pacific in San Francisco, CA. With 100% participation from the fifteen regional schools, I was incredibly impressed with the organization and effort put forth by these two individuals to provide a truly productive and enjoyable meeting. Likewise, I would like to thank Dr. Mary Baechle, our Region VI Director, and Dr. Michael Metz who hosted their region's CODE Representatives at the University of Louisville. Nine out of the thirteen regional schools had representation and once again, the conversation, camaraderie, and southern hospitality made for a wonderful meeting. Although I was only able to attend these two Regional Fall Meetings, thanks must be extended to each of our hosts and host schools; Region II – Dr. Deborah Cobb – University of Iowa, Region III – Dr. Pia Chatterjee Kirk – University of Mississippi, Region IV – Dr. Ron DeAngelis – University of Pittsburgh, and Region V – Dr. James Kaim – University of New York. Having hosted a fall regional meeting in the past, I understand and respect the amount of time necessary to make the meeting fruitful. Similarly, thanks must go to each Regional Director, whose help is essential in communicating with each school in their region, following up on dues payments, keeping accurate rosters of CODE Representatives, and leading the discussion related to the National Agenda. As always, thanks must go to Dr. William Johnson for his continued service as Webmaster for the Consortium. Please continue to provide him with updates regarding any changes in your contact information.

One of my first acts as National Director was to send a letter to all of the Deans of the North American dental schools explaining our mission and asking for their continued support. I also asked that they assist in routing the Annual Dues Statement to the correct individual within their school for payment. For 2017, our annual membership dues were increased from \$50 to \$100 and most schools responded to the dues statement in a timely fashion. However, there are still many schools that have yet to pay their dues even after repeated requests. I would ask that if your institution is one of those listed as not having paid (see the Schools and Regions section of this report), please help facilitate payment by following up with the individual who is responsible for the dues payment. Contact me directly at gary.stafford@marquette.edu with any questions you might have.

Dr.'s Richard Callan and Brent Fung have agreed to provide a presentation on their research project at the 2017 Annual National Meeting that will be held at 5:10 pm in the Parkside Room of the Drake Hotel in Chicago, IL on Thursday, February 23rd, 2017. Although Dr. Fung is uncertain as to whether or not he will be able to make the trip, Dr. Callan has confirmed that he will be there and I would hope to see many of you there as well. Until then, you have...

All my best,

A handwritten signature in blue ink, appearing to read 'G. Stafford'.

Gary L. Stafford DMD
National Director – Consortium of Operative Dentistry Educators (CODE)

Origins of CODE

Project ACORDE (A Consortium of Restorative Dentistry Education)

The date usually cited as the starting point for the development of Project ACORDE is 1966. That year, in Miami, the Operative Dentistry Section of AADS formed a committee charged to plan for the cooperative development of teaching dental materials.

In July of 1971, the Dental Health Center, San Francisco, invited faculty from 14 dental schools to explore the feasibility of reaching consensus of a series of operative dental procedures. The outcome of the meeting suggested that it was feasible to achieve broad-based agreement on basic procedures: task analyses could be developed in which consensus could be reached on essential details of methods and instrumentation. The Project ACORDE committee was charged with the responsibility for coordinating curriculum development efforts on a national level in November of that year. Prominent in this project development were Bill Ferguson, David Grainger and Bob Wolcott.

The Broad Goals and Functions of this committee were:

1. To gain agreement among all participating dental schools on the teaching of operative dentistry functions and gain acceptance by all schools.
2. To produce materials which can be universally accepted and utilized for teaching dental students and expanded function auxiliaries.

During 1974, a 15-module package entitled Restoration of Cavities with Amalgam and Tooth-colored Materials was presented. The preparation package entitled Cavity Preparations for Amalgam and Tooth-colored Materials became available for distribution in March of 1976.

Project ACORDE was found to have produced three major benefits for dental education:

1. It opened new channels of communication among dental educators.
2. It suggested uniform standards of quality for the performance of restorative skills.
3. It produced numerous lesson materials that were useful both for teaching students and as models of developers of other lessons.

The benefit, most frequently cited by dental school faculty, was communication. The primary example of the communication begun by Project ACORDE, which has lasted well beyond the initial project, is CODE (Consortium of Operative Dentistry Educators). CODE has as its goal, the continuation of meetings for the purpose of information exchange among teachers of operative dentistry. Regional CODE meetings are held

annually with minutes of each session recorded and sent to the national director for distribution. This system is a direct spin-off of Project ACORDE.

The first annual session of CODE was held in 1974/75.

The Early Years (1974-1977)

As founding father of the concept, Robert B. Wolcott of UCLA assumed the role of national coordinator and appointed Frank J. Miranda of the University of Oklahoma as national secretary. A common agenda to be provided to all six regions was established at this time. The first regional meetings were held in the winter of 1974. During the first three years of operation, each region devised a system of rotation so that a different school hosted the regional meeting each year, thus providing a greater degree of motivation and bringing schools closer together in a spirit of fellowship and unity. Each region submitted suggestions for future agendas, thereby insuring a continued discussion of interesting and relevant topics. A collection of tests or a test bank was started in early 1976. This bank consisted of submitted written examination questions on specified topics that were compiled and redistributed to all schools.

The Transition Years (1977-1980)

The first indication that the future of CODE was in jeopardy came in 1977, the first year that a national report could not be compiled and distributed. As the result of the efforts of a committee chaired by Dr. Wolcott, the original concept was renewed in 1980. Its leadership had been transformed from the structure of a national coordinator and secretary to a standing subcommittee under the auspices and direction of the Section of Operative Dentistry of the AADS.

The Reaffirmation Years (1997 - 1998)

During the 1997 meetings of both the Operative Dentistry Section Executive Council and the Business meeting of the Section, interest was expressed about reorganizing CODE and aligning it more closely with the Section. During the following year, fact-finding and discussions occurred to formulate a reorganization plan.

The plan was submitted for public comment at the 1998 meeting of the Operative Dentistry Section Executive Council and the Business meeting of the Section. At the conclusion of the Business meeting the reorganization plan was approved and implemented.

Reaffirmation of CODE official title (2003)

CODE changed its name from *Conference of Operative Dentistry Educators* to *Consortium of Operative Dentistry Educators* due to a ratification vote at the Fall 2003 Regional CODE meetings.

Establishment of Board of Directors and Articles of Incorporation

In 2013, Dr. Larry Haisch stepped down as National Director. The organization flourished under Larry's outstanding leadership and 15-year tenure as National Director. Bank accounts needed to be transferred to the new National Director's locale and name. In a post 9-11 society, banks accounts are not as easy to establish for non-profit organizations as they once were. The organization was compelled to establish a Board of Directors and write Articles of Incorporation in order to conduct regular organizational business. The Board of Directors consists of all Regional Directors as well as the At-Large Directors.

The Future of CODE

The official sponsorship by the Section of Operative Dentistry of ADEA (formerly ADDS) and the revised administrative structure of CODE are both designed to insure its continuance as a viable group. The original concepts, ideas and hopes for CODE remain unchanged and undiminished. Its philosophy continues to be based on the concept of dental educators talking with each other, working together, cooperating and standardizing, when applicable, their teaching efforts and generally socializing in ways to foster communication. There is every reason to believe that organizations such as CODE, and those developed in other fields of dentistry, will continue to crumble the barriers of provincialism and provide the profession with a fellowship that is truly national in scope.

*This section was written and edited by Larry D. Haisch, DDS
CODE National Director 1998 – 2012*

Past and Current National Directors (Coordinators)

1974 - 1982	Robert B. Walcott DDS	University of California Los Angeles
1982 - 1986	Thomas A. Garmen DDS MS	University of Georgia
1986 - 1989	Frank J. Miranda DDS	University of Oklahoma
1989 - 1998	Marc A. Gale DMD M Ed	University of Florida
1998 - 2012	Larry D. Haisch DDS	University of Nebraska
2013 - 2015	Edward J. DeSchepper MA Ed DDS MSD	University of Tennessee
2016 - Present	Gary L. Stafford DMD	Marquette University

Organizational Operation

The Section on Operative Dentistry and Biomaterials of the American Dental Education Association (ADEA) has “oversight” responsibility for sustaining and managing the activities of CODE.

- The Executive Council of the Operative and Biomaterials Section will appoint the National Director of CODE for a three-year renewable term.
- The National Director will be selected from a list of one or more individuals nominated for the position by the CODE Advisory Committee after input from the regions.
- The National Director will perform the functions and duties as set forth by the Council.
- The National Director will be a joint member on the Council and will be expected to attend a regional CODE meeting and the annual meeting of the Council and Section. The National Director may also serve as an elected officer of the Council.

A CODE Advisory Committee (and now also Board of Directors) will assist the National Director with his/her duties.

- A CODE Advisory Committee will consist of the Regional Directors from each of the six regions, the National Director and three at-large members.
- Each region will select their Regional Director. The National Director and/or the Executive Council may select the at-large member(s).
- The terms are three years, renewable, not to exceed two consecutive terms.
- The National Director serves as Chair of the Advisory Committee.

The annual CODE Regional meetings will serve as the interim meeting of the section. Some section business may be conducted at each CODE Regional meeting as part of the National agenda.

Regional Directors:

- Will be a member of ADEA and the section of Operative Dentistry
- Will oversee the conduct and operation of CODE in their respective region while working in concert with the national director
- Will have communication media capabilities including e-mail with the capability of transmitting attachments

- Will attend the region's meeting
- Ensure that meeting dates, host person and school are identified for the following year
- Do follow-up assist on dues "nonpayment" by schools
- Ensure that reports of regional meetings are submitted **within 30 days** of meeting conclusion to the National Director
- Ensure that individual school rosters (operative based) are current for the region
- Identify a contact person at each school
- Assist in determining the national agenda
- Other, as required

Advisory Committee

(Board of Directors)

Updated 12.30.16

	Region	Regional Directors	Phone/email	3 Year Term
I	Pacific	Oanh Le DDS Clinical Professor PRDS University of California San Francisco School of Dentistry 707 Parnassus Ave. San Francisco, CA 94143	650.558.9253 oanh.le@ucsf.edu	2015 - 2018
II	Midwest	Christa Hopp DMD Associate Professor Restorative Department Southern Illinois University School of Dental Medicine 2800 College Ave. Alton, IL 62002	618.474.7052 chopp@siue.edu	2015 - 2018
III	South Midwest	Shalizeh A. Patel Associate Professor Department of Restorative Dentistry and Prosthodontics University of Texas Health Science Center at Houston, School of Dentistry SOD-5442 Houston, TX 77030	713.486.4269 Shalizeh.Patel@uth.tmc.edu	2016 - 2019
IV	Great Lakes	Michele L. Kirkup DDS Clinical Assistant Professor Department of Restorative Dentistry Indiana University College of Dentistry 1121 West Michigan St. Indianapolis, IN 46202	317.278.3398 mkirkup@iu.edu	2016 - 2019
V	Northeast	James M. Kaim DDS Professor Department of Cariology and Comprehensive Care New York University College of Dentistry Floor 6, 137 East 25 th St. New York, NY 10010	212.995.4889 jmk2@nyu.edu	2016 - 2019
VI	South	Mary Baechle DDS Associate Professor Virginia Commonwealth University School of Dentistry 520 North 12 th St. Box 980566 Richmond, VA 23298-0566	804.828.7297 mbaechle@vcu.edu	2016 - 2019
		At-Large Members	Phone/email	3 Year Term
II	At-Large	William W. Johnson DDS MS Professor and Vice Chair Department of Adult Restorative Dentistry University of Nebraska 4000 East Campus Loop South Lincoln, NE 68583-0740	402.472.9406 wwjohnson@unmc.edu	2016 - 2019
III	At-Large	Edmond R. Hewlett DDS Professor Associate Dean for Outreach & Diversity University of California Los Angeles School of Dentistry 10833 Le Conte Ave., 23-088D CHS Los Angeles, CA 90095-1668	310.825.7097 edhewlett@dentistry.ucla.edu	2016 - 2016

		At-Large Members	Phone/email	3 Year Term
VI	At-Large	Kevin B. Frazier DMD EdS Vice Dean Professor, Oral Rehabilitation Dental College of Georgia, GC 5210 Augusta University Augusta, GA 30912	706.721.2881 kfrazier@augusta.edu	2016 - 2019
II	Web Master	William W. Johnson DDS MS Professor and Vice Chair Department of Adult Restorative Dentistry University of Nebraska 4000 East Campus Loop South Lincoln, NE 68583-0740	402.472.9406 wwjohnson@unmc.edu	No Term
II	National Director	Gary L. Stafford DMD Associate Professor and Chair Department of General Dental Sciences Marquette University School of Dentistry 1801 W. Wisconsin Ave. Rm 336C Milwaukee, WI 53233	414.288.5409 gary.stafford@mu.edu	2016 - 2019

Regions and Schools

North American Dental Schools = 76 (10 Canada* and 66 United States) + the Naval Dental Center

Region I (Pacific) – 15 Dental Schools (2 Canada* and 13 United States)

Region	Dental School	2017 Member
I	University of Alberta*	✓
I	University of British Columbia*	✓
I	AT Still University of Health Sciences - Arizona	✓
I	Midwestern University - Arizona	✓
I	Loma Linda University	✓
I	Roseman University of Health Sciences	✓
I	University of Nevada at Las Vegas	✓
I	University of Southern California	✓
I	University of California at Los Angeles	✓
I	University of California at San Francisco	✓
I	University of the Pacific	✓
I	Oregon Health Sciences University	✓
I	University of Utah	✓
I	University of Washington	✓
I	Western University of Health Sciences	✓

Region II (Midwest) – 11 Dental Schools (2 Canada* and 9 United States)

Region	Dental School	2017 Member
II	University of Manitoba*	✓
II	University of Saskatchewan*	✓
II	Missouri School of Dentistry & Oral Health	
II	University of Colorado Health Sciences Center	✓
II	The University of Iowa	✓
II	Southern Illinois University	✓
II	University of Minnesota	✓
II	University of Missouri at Kansas City	✓
II	University of Nebraska Medical Center	✓
II	Creighton University	✓
II	Marquette University	✓

Region III (South Midwest) – 7 Dental Schools (7 United States)

Region	Dental School	2017 Member
III	Louisiana State University Health Sciences Center	✓
III	University of Mississippi Medical Center	✓
III	Oklahoma University Health Sciences Center	✓
III	University of Tennessee	✓
III	Baylor College of Dentistry	✓
III	University of Texas Health Sciences Center at Houston	✓
III	University of Texas Health Sciences Center at San Antonio	✓

Region IV (Great Lakes) – 11 Dental Schools (1 Canada* and 10 United States)

Region	Dental School	2017 Member
IV	The University of Western Ontario*	✓
IV	Midwestern University - Illinois	✓
IV	The University of Illinois – Chicago	✓
IV	Indiana University School of Dentistry	✓
IV	University of Detroit Mercy	✓
IV	University of Michigan	✓
IV	University of Buffalo	✓
IV	Case Western University	
IV	The Ohio State University	✓
IV	University of Pittsburgh	
IV	West Virginia University	✓

Region V (Northeast) – 18 Dental Schools (4 Canada* and 14 United States) + 1 NDC Member

Region	Dental School	2017 Member
V	Dalhousie University*	✓
V	McGill University*	
V	University of Toronto*	
V	Laval University*	
V	University of Montreal*	
V	University of Connecticut Health Center	
V	Howard University	
V	Boston University	✓
V	Harvard University	
V	Tufts University	✓
V	University of Maryland	✓
V	Naval Dental Center	
V	University of New England	✓
V	Rutgers University	

V	New York University	✓
V	Stony Brook University	
V	Columbia University	✓
V	Temple University	✓
V	Touro College of Dental Medicine	
V	University of Pennsylvania	

Region VI (South) – 13 Dental Schools (13 United States)

Region	Dental School	2017 Member
VI	University of Alabama	✓
VI	East Carolina University	✓
VI	Lake Erie College of Osteopathic Medicine	
VI	Nova Southeastern University	✓
VI	University of Florida	✓
VI	The Dental College of Georgia at Augusta University	✓
VI	University of Kentucky	✓
VI	University of Louisville	
VI	University of North Carolina	✓
VI	University of Puerto Rico	
VI	Medical University of South Carolina	
VI	Meharry Medical College	✓
VI	Virginia Commonwealth University	✓

2016 Regional Meeting Hosts

Region/Dates	University/Address	Host Name/Phone/email
I – September 22-23, 2016	University of the Pacific Arthur A. Dugoni School of Dentistry 155 5 th St San Francisco, CA 94103	Phil Buchanan 408.427.2552 pbuchanan@pacific.edu
II – September 22-23, 2016	University of Iowa College of Dentistry 801 Newton Rd Iowa City, IA 52242	Deborah Cobb 319.330.2766 deborah.cobb@uiowa.edu
III – November 2-4, 2016	University of Mississippi School of Dentistry 2500 North State St Jackson, MS 39216	Pia Chatterjee Kirk 601.984.6030 pchatterjee@umc.edu
IV – October 13-14, 2016	University of Pittsburgh School of Dentistry 4200 5 th Ave Pittsburgh, PA 15213-3515	Ron DeAngelis 412.648.0079 Rjd43@pitt.edu
V – September 28-29, 2016	New York University College of Dentistry 345 E 24 th St New York, NY 10010	James Kaim 212.998.9720 Jmk2@nyu.edu
VI – October 13-14, 2016	University of Louisville School of Dentistry 501 S Preston St Louisville, KY 40202-1701	Michael Metz 502.852.6168 Mjmetz01@louisville.edu

2017 Regional Meeting Hosts

ç	University/Address	Host Name/Phone/email
I – September 28-29, 2017	Oregon Health Sciences University School of Dentistry 2730 SW Moody Ave Portland, OR 97201	Rose McPharlin 503.494.6209 mcpharlin@ohsu.edu
II – September 21-22, 2017	University of Missouri at Kansas City School of Dentistry 650 E 25 th St Kansas City, MO 64108-2784	Melynda Meredith 816.679.7186 meredithmm@umkc.edu
III – November 1-3, 2017	Louisiana State University School of Dentistry 110 Florida Ave, Box 137 New Orleans, LA 70119	Nick Miniotis 228.257.0427 nminio@lsuhsc.edu
IV – TBD, 2017	The Ohio State University School of Dentistry Postle Hall 305 W 12 th Ave Columbus, OH 43210-1267	D. Stanley Sharples 614.688.5808 sharples.3@osu.edu
V – September 28-29, 2017	New York University College of Dentistry 345 E 24 th St New York, NY 10010	James Kaim 212.998.9720 Jmk2@nyu.edu
VI – TBD, 2017	University of Florida College of Dentistry 1935 Center Dr Gainesville, FL 32610	Alex Delagado 352.273.5849 adelagado@dental.ufl.edu

Regional Meeting Reporting/National Meeting Information

The 2016 National Agenda was established after a review of the suggestions contained in the reports of the 2015 Fall Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas were reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect as to what has changed and the response/action taken and/or the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending a Regional Meeting is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to timely publication of the National Annual Report.

Continue to invite your colleagues, Dental Licensure Board examiners, and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings. The strength of the organization lies in its membership.

Each Region should select next year's meeting site and date/tentative date during your Fall Regional CODE meeting so this information may be published in the Annual National Report and on the CODE website.

The Regional meeting reports are to be submitted to the National Director in publishable format as an email attachment.

The required format and sequence will be:

- 1. CODE Regional Meeting Report Form***
- 2. CODE Regional Attendees form***
- 3. Summary of responses to the National Agenda**
- 4. Individual school responses to the National Agenda**
- 5. The Regional Agenda summary and responses**

*(copies may be obtained from the CODE website: www.unmc.edu/code or within this document)

Send an electronic copy of the final regional report via an email attachment to the National Director (gary.stafford@mu.edu) within thirty (30) days of the meetings conclusion.

National CODE Meeting:

The meeting will be held Thursday, February 23rd, 2017 from 5:10 – 6:30 pm in the Parkside Room at the Drake Hotel, 140 East Walton Place, in Chicago, IL.

2017 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held on Monday, March 20th at 7:00 am during the ADEA Annual Session & Exhibition, March 18-21, 2017 in Long Beach, CA.

National Directory of Operative Dentistry Educators:

The CODE National Director maintains the National Directory of Operative Dentistry Educators as a resource for other dental professionals. It is critically important that this information be as current as possible.

You may update your university's directory listing on the CODE website at www.unmc.edu/code or by sending an email directly to the National Director at gary.stafford@mu.edu.

In an effort to keep the National Directory up to date, please have each school in your Region update the following information:

1. *School name and complete mailing address*
2. *Individual names: (F/T Faculty), phone number and email address of F/T Faculty who teaches operative dentistry.*
 - a. This could be individual's who teach in a comprehensive care program, etc... if there is no defined operative section of the department.

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete National Directory and publishing the Annual National Report in a timely fashion.

All my best,



Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
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2016 National Agenda

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

- a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
- b. How soon?

2. YES

- a. Which courses?
- b. What System?
- c. How long have you been using a CAD/CAM System?
- d. How are you using CAD/CAM in your pre-clinical courses?
- e. What are the prerequisites for its use?
- f. When do students get to use it?
- g. Who provides supervision?
- h. What training did they receive?

ii. Are you using CAD/CAM in your clinical courses?

1. NO

- a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?
- b. How soon?

2. YES

- a. Which courses?
- b. What System?
- c. How long have you been using a CAD/CAM System?
- d. How are you using CAD/CAM in your pre-clinical courses?
- e. What are the prerequisites for its use?
- f. When do students get to use it?
- g. Who provides supervision?
- h. What training did they receive?

iii. Are you using virtual reality haptic feedback training?

1. NO

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?
 - i. What System?
- b. How soon?

2. YES

- a. Which courses?

- b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
 - iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System?
 - b. How long have you been using a Digital Impression System?
 - c. What are the prerequisites for its use?
 - d. When do students get to use it?
 - e. Who provides supervision?
 - f. What training did they receive?
 - v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
 - vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.
- b. Clinical Organizational Structure**
- i. How many pre-doctoral students do you have per class?
 - ii. What are your normal hours per clinical session?

- iii. How are your clinical groups set-up?
- iv. How do your clinical groups function?
- v. How long have you had your current structure?
- vi. Do you plan on changing in the near future?

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients?
- iii. If so, what are the main reasons?

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?
 - 1. Do you use Carbamide Peroxide for caries control?
 - 2. Do you use Sodium Diamine Fluoride for caries control?
- ii. What evidence do you have to support your use/non-use?

b. Caries Removal

- i. Do you teach total or partial caries removal?

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
- ii. Do you use bulk fill composite resin clinically?
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
- ii. Are students evaluated (graded) on their daily clinical procedures?
 - 1. If so, what metrics or methods are used?
- iii. Provide Rubrics if available.

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

VI. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?
 - 1. ex...the use of patient photos on Facebook
 - 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities?
- iii. What specific rules/guidelines do you have in place?

2017 Regional Meeting Report Form

Region:

Host University, Address, and Dates of 2017 Regional Meeting:

Host University	Address	Dates of Meeting

Chairperson and Contact Information for 2017 Regional Meeting:

Chairperson	University/Address	Phone/email

List of Attendees: (Please complete CODE Regional Meeting Attendees Form on the following page)

Contact Person, Host University, and Dates of 2018 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting

Suggested Agenda Items for Next Year:

2017 Regional Meeting Attendee's Form

Name	University	Phone	email

2017 Regional Meeting Attendee's Form

Name	University	Phone	email

Please return all completed enclosures to:

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director

Associate Professor and Chair
Department of General Dental Sciences
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Deadline for return: 30 days post-meeting

Please send the requested documents via email with attachments

CODE REGIONAL MEETING FORM

REGION: I (Pacific)

LOCATION INFORMATION FOR 2016 REGIONAL MEETING

University: University of the Pacific Arthur A. Dugoni School of Dentistry

Dates: September 22-23, 2016

Chairperson: Oanh Le, DDS Phone # 415-519-9852

University: University of the Pacific Arthur A. Dugoni School of Dentistry Fax #

Address: 155 Fifth Street, Second and Third Floor Group Practices E-mail jbuchan@garlic.com or pbuchanan@pacific.edu

San Francisco, CA 94103

List of Attendees: Please complete the CODE Regional Attendees form (See next page)

Suggested Agenda Items for Next Year:

- Protocols for bonding with Fixed Prosthodontics and Operative Dentistry
- Biological aspect of Operative Dentistry: Pulp capping and pulp tissue management (CaOH₂ vs. MTA)
- Calibration for Assessment
- Simulated Clinical Teaching
- Faculty Development
- Redo or patch marginal staining around composites
- Using 3D printing for Provisionals (Yes/No)
- Using CAD/CAM for Provisionals (Yes/No)
- Materials used for provisional and methods for making

LOCATION INFORMATION FOR 2017 REGIONAL MEETING

University: Oregon Health Sciences University School of Dentistry

Dates: September 28-29, 2017

Chairperson: Oanh Le, DDS Phone # 415-519-9852

University: Oregon Health Sciences University School of Dentistry Fax #

Address: 2730 SW Moody Ave E-mail mcpharli@ohsu.edu

Portland, OR 97201

Phone #

503-494-6209

Please return all completed enclosures to;

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Phone: 414-288-5409
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DEADLINE FOR RETURN: 30 Days post-meeting

Also send the information on a disk **and** via e-mail with **all** attachments.

Please indicate the software program and version utilized for your reports.

CODE REGIONAL ATTENDEES FORM

REGION: __I__
(Pacific)

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**2016 NATIONAL CODE
AGENDA REGION I
SUMMARY RESPONSES TO NATIONAL AGENDA
(Editor Note: Questions condensed for printing purposes)**

*(Please cite the evidence were applicable. If utilizing reports/forms/schedules from
your Regional schools, please submit these as PDF files for utilization in the
Annual Fall Regional Report)*

No Summary Responses Submitted

2016 NATIONAL CODE AGENDA

(Evidence cited where applicable) September 22-23, 2016 Report on the proceedings of
CODE Region I

Dr. Gary Stafford Code Regional Annual Reports 2016

<http://www.unmc.edu/code/>

Region I School Abbreviations

UA	University of Alberta	ROSE	Roseman University -Utah
ASDOH	Arizona School of Dentistry	UOP	University of the Pacific
MWU	Midwestern University College	UCSF	University of California-SF
UBC	University of British Columbia	USC	University of Southern Calif
LLU	Loma Linda University	WUHS	Western University
UNLV	University of Nevada	UW	University of Washington
OHSU	Oregon Health Science University UU		University of Utah
UCLA	University of California-LA		

I. Curriculum

Integration of Technology in the Pre-clinical and Clinical experience

- i. Are you using CAD/CAM in your pre-clinical courses?
 1. **NO**
 - a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
 - b. How soon?
 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using a CAD/CAM System?
 - d. How are you using CAD/CAM in your pre-clinical courses?
 - e. What are the prerequisites for its use?
 - f. When do students get to use it?
 - g. Who provides supervision?
 - h. What training did they receive?

UA

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. **NO**

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. **YES**

a. Which courses?

D2 operative simulation lab

b. What System?

E4D

c. How long have you been using a CAD/CAM System?

3 years

d. How are you using CAD/CAM in your pre-clinical courses?

Students prepare teeth, scan and fabricate restorations

e. What are the prerequisites for its use? Attend lectures on use and must do lab training with instructor

f. When do students get to use it?

Available during and after lab sessions

g. Who provides supervision

Lab instructors

h. What training did they receive?

Some have attended E4D training in Dallas, others receive onsite training

ASDOH

• YES

• Which courses

• Prosth and operative

- What System?
- CEREC
- How long have you been using a CAD/CAM System?

5 years

- How are you using CAD/CAM in your pre-clinical courses?

1-We created a club for pre-clinical CAD-CAM technology . Students who are interested in the technology will be introduced and trained over the summer of their first year to help implanting the technology in the second year

2- We purchased the Prep-Check technology and we train the students on the first day of the fixed module on how to use it. Students are required to scan their preps and evaluate them using the technology.

3- We teach CAD-CAM as part of the fixed and operative module (didactic & hands-on). The students has to scan, mill and cement crowns and onlays as part of the module requirements

- What are the prerequisites for its use?

Attend class and go through the training

- When do students get to use it?

Early in the second year and we are trying to implemented as early as the first year

- Who provides supervision?

The module instructor and sim-clinic faculty. Also we have 2 expert faculty who help us and clinic in building the curriculum and implement it

- What training did they receive?

As explained above

limited basis for the last 5 years. But this last year we hired a faculty 2 days a week in the clinic to work with the students on CAD/CAM cases only

MWU

Integration of Technology in the Pre-clinical and Clinical experience

Are you using CAD/CAM in your pre-clinical courses?

Yes

a. Which courses? –

We use it predominately throughout the D-2 year in the Simulation Clinic Course. It is also taught to incoming D-2 students the summer after their D-1 year.

b. What System?

We teach the PlanScan system predominately. We also have CEREC units to expose the students to more than one system.

c. How long have you been using a CAD/CAM System?

Since 2008.

d. How are you using CAD/CAM in your pre-clinical courses? – There is a project each quarter to prep, scan, design, and mill a crown in each sextant. We also have rotations in which groups of ten students go through twice during the D-2 year. Three faculty work with them in these small groups in four hour blocks from prep through bonding. We also allow students to scan any of their projects to better visualize how they are progressing.

e. What are the prerequisites for its use?

Students are given a series of lectures on ceramic types, properties, and the CAD/CAM process utilizing the PlanScan system. They are all taught by faculty members when utilizing the equipment.

f. When do students get to use it?

During regular Simulation Clinic course time and rotations, or by appointment with faculty.

g. Who provides supervision?

Full time faculty. Generally the same ones that run the rotations

h. What training did they receive?

They have all been trained at the PlanScan facilities in Texas and have utilized CAD/CAM in their previous practices.

UBC

1. NO, but... see below

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

YES

i. What System? CEREC

b. How soon? Hopefully 2017-2018

2. **YES**, we have a pre-clinical CE course for 12 students in the summer between 3rd and 4th year.
 - a. Which courses? Presently non-curricular
 - b. What System? CEREC
 - c. How long have you been using a CAD/CAM System? 7 years
 - d. How are you using CAD/CAM in your pre-clinical courses? See 2. above
 - e. What are the prerequisites for its use? For patient care they need to take the summer CE course, or get trained and acquire experience through the Summer Student Practitioner Program.
 - f. When do students get to use it? 4th year
 - g. Who provides supervision? 2 P/T instructors and me (MF)
 - h. What training did they receive? They are very experienced CEREC users and leading the Pacific CAD/CAM Study Club. I (MF) attended basic CEREC training 7 years ago, regular member in the study club, attend CEREC meetings and has been teaching it since.

LLU

- a. **Integration of Technology in the Pre-clinical and Clinical experience**
 - i. Are you using CAD/CAM in your pre-clinical courses?
 1. **NO**
 - a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
 - b. How soon?
 2. **YES**
 - a. Which courses? Single unit casting course and Fixed Pros II
 - b. What System? Cerec
 - c. How long have you been using a CAD/CAM System? 10 yrs
 - d. How are you using CAD/CAM in your pre-clinical courses? Digital impressions only- no milling.
 - e. What are the prerequisites for its use? Passing previous courses
 - f. When do students get to use it? Beginning 2nd quarter of D2 year
 - g. Who provides supervision? Lab instructors
 - h. What training did they receive? Hands-on sessions

UNLV

- i. Are you using CAD/CAM in your pre-clinical courses?

1.No

- a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
- b. How soon?

2.YES

- a. Which courses? DS1 operative, exposure to CEREC for prep analysis; use as slice feature and magnification. DS2 Simulated Comprehensive Care, Fall and Spring, again mostly prep analysis but opportunity to design and mill a feldspathic crown at end of Spring. In Summer semester, all students were required to design and mill one crown; also used some to analyze bridge preps, undercuts, etc.
- b. What System? CEREC (Sirona) blu cam technology; Omnicam and others scanners in purchasing process.
- c. How long have you been using a CAD/CAM System? 1 year
- d. How are you using CAD/CAM in your preclinical courses? It was not required, but a few students were exposed to it and trained to be trainers. Very few faculty familiar, intention was to stimulate interest and use with students to drive the demand for increased training of faculty and expand into clinics. Faculty training is to begin this fall.
- e. What are the prerequisites for its use? Initially, commit to after-hours training with one of the faculty who is familiar with CEREC.
- f. When do students get to use it? Initially, only in class, but has evolved into one unit being left in sim lab, available at all hours sim lab is open.
- g. Who provides supervision? In class, the few faculty. After hours, students with experience and interest. In clinic, those already knowledgeable.
- h. What training did they receive? Some faculty had experience in practice. Course director had to seek his own training and resources, was given unlimited access to a unit (in his office full time); Patterson Dental provided some support. Sirona training assistance was initially limited, but expanded greatly due to personal contacts, not "free" corporate support. Expanded faculty training to begin this fall.

OHSU

- **NO**
 - Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - What System?

- How soon?
- **YES**

Which courses? DS1 dental anatomy, DS2 fixed pros, DS2 CAD/CAM course

- What System? CEREC
- How long have you been using a CAD/CAM System? 7-8 years

How are you using CAD/CAM in your pre-clinical courses?

Dental Anatomy: Students are learning how to do “digital wax ups” using the design software. In DS2 Fixed Pros, they learn prep design and scanning. IN DS2 CAD/CAM course, they learn more advanced prep design, scanning with both Blue Cam and Omnicam, restoration design on the software, milling, and adhesive cementation. They also get their first hands-on experience with scanning using the Omnicam on each other.

- What are the prerequisites for its use? NONE

When do students get to use it? In the pre-clinical courses. When the CAD/CAM sessions are going on, we make CAD/CAM units available after hours for students to use and practice with.

- Who provides supervision? Faculty—there is a group of trained CAD/CAM faculty
- What training did they receive? Training in courses provided by Sirona, training by faculty/private practitioners who provide these restorations to great degree in their practices

UCLA

- **Integration of Technology in the Pre-clinical and Clinical experience**

- Are you using CAD/CAM in your pre-clinical courses?

- **YES**

- Which courses?

Indirect Restorations during the second year.

- What System?

CEREC Bluecam

- How long have you been using a CAD/CAM System?

Since 2012

- How are you using CAD/CAM in your pre-clinical courses?

Students prep two onlays (Fall) and one crown (Spring). Then, they scan, mill, fire, and glaze them.

- What are the prerequisites for its use?

The only pre-rq is taking the class, in which a lecture is given by our Indirect Rest Chair.

- When do students get to use it?

Student use it during the second year in the Indirect Restoration course.

- Who provides supervision?

Each bench instructor

- What training did they receive?

Scanning, milling, firing, and glazing

ROSE

a. Integration of Technology in the Pre-clinical and Clinical experience

- i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

- a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

- i. What System?

- b. How soon?

2. YES

- a. Which courses? Dental Anatomy, Operative/Restorative, Fixed Prosthodontics

- b. What System? E4D

- c. How long have you been using a CAD/CAM System? – on our second year

- d. How are you using CAD/CAM in your pre-clinical courses? Yes

Scan/Design/Mill/Cement – crowns and onlays

- e. What are the prerequisites for its use? –individualized instruction and mentoring

Didactic and hands-on training

A requirement to complete 1-3 practice cases on a typodont (simulator) prior to scheduling patient case.

- f. When do students get to use it? D1 year beginning in dental anatomy – We are attempting to use Compare

- g. Who provides supervision? We have a designated specialist who trains faculty and

students. Trained faculty then may instruct and supervise student exercises

Trained Pre-clinical Faculty

We are planning for more training opportunities

- h. What training did they receive? See "G" above
1-2 days of hands-on training

UOP

a. Integration of Technology in the Pre-clinical and Clinical experience

- i. Are you using CAD/CAM in your pre-clinical courses?

NO

UCSF

- a. Integration of Technology in the Pre-clinical and Clinical experience.

- i. Are you using CAD/CAM in your pre-clinical courses?

NO

USC

- i. Are you using CAD/CAM in your pre-clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
 - b. How soon?
 - 2. **YES**
 - a. Which courses?
 - i. *Indirect Restoration module (D1)*
 - a. *Posterior Fixed Prosthodontics module (D2)*
 - b. *Anterior Fixed Prosthodontics module (D2)*
 - c. *Removable Prosthodontics module (D2)*
 - b. What System?

Mainly CEREC, some Planmeca, and DentCAD for removable
 - c. How long have you been using a CAD/CAM System?

Since 2010 with single tooth indirect restorations. Recently with removable

prosthesis

- d. How are you using CAD/CAM in your pre-clinical courses?

CAD/CAM is an independent module in the first year and reinforced in the subsequent modules throughout the preclinical and clinical course

- e. What are the prerequisites for its use?

To successfully complete the preclinical course

- f. When do students get to use it?

*Students are taught to scan, design, mill and deliver their CAD/CAM cases under supervision of a calibrated faculty
Who provides supervision*

- g. Who provides supervision?

Restorative Faculty and the Advanced Operative residents supervising the scanning and milling.

- h. What training did they receive?

Restorative faculty had multiple CAD/CAM trainings over the years, either in-house or by Patterson or Henry Schein.

WUHS

a. Integration of Technology in the Pre-clinical and Clinical experience

1. No

- i. Are you using CAD/CAM in your pre-clinical courses?

2. YES

- a. Which courses?

Dental Anatomy, Fixed Prosthodontics, CAD/CAM, Removable

- b. What System? *Planmeca Fit*

- c. How long have you been using a CAD/CAM System?

1 year and 6 months

- d. How are you using CAD/CAM in your pre-clinical courses?

Objective grading, improve student evaluation, CAD/CAM training.

- e. What are the prerequisites for its use?

Module director interest and applicability.

- f. When do students get to use it? *During rotations and courses.*

- g. Who provides supervision? *Faculty or Self-Guided*

- h. What training did they receive?

Scanning, Design, Milling, Characterization, and practice CAD/CAM exercises

UW

Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses?

2nd year Operative Dentistry course

b. What System?

3Shape, E4D

c. How long have you been using a CAD/CAM System?

3 years

d. How are you using CAD/CAM in your pre-clinical courses?

In the simulation laboratory, each student is required to scan the prepared dentoform tooth using an E4D and Trios, 3Shape intraoral scanner, finish and cement a CAD/CAM-generated all ceramic restoration.

e. What are the prerequisites for its use?

A series of lectures related to the CAD/CAM technology were introduced at the 2nd year Operative Dentistry course.

f. When do students get to use it?

2nd year, Spring quarter

g. Who provides supervision?

Besides the full-time faculty at the course, we recruit 2-3 affiliate faculty whose expertise in cad/cam to help supervise the students

h. What training did they receive?

The faculty taught in this course all have experiences in cad/cam but with different systems. A one-day training course to the faculty was provided to calibrate the teaching methodology.

UU

• Integration of Technology in the Pre-clinical and Clinical experience

• Are you using CAD/CAM in your pre-clinical courses?

•

• YES

• Which courses? Fixed Prosthetics II

- What System? 3 Shape
- How long have you been using a CAD/CAM System? Since the course began in the new school's curriculum.
- How are you using CAD/CAM in your pre-clinical courses? Each student will prepare and restore a case
- What are the prerequisites for its use? Completion of Fixed Prosthetics I
- When do students get to use it?
- Who provides supervision? Dr. Mark Taylor and his faculty
- What training did they receive? Training from the distributor, and from experience.

ii. Are you using CAD/CAM in your clinical courses?

1. **NO**

- a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?

b. How soon?

2. **YES**

- a. Which courses?
- b. What System?
- c. How long have you been using a CAD/CAM System?
- d. How are you using CAD/CAM in your pre-clinical courses?
- e. What are the prerequisites for its use?
- f. When do students get to use it?
- g. Who provides supervision?
- h. What training did they receive?

UA

2. **YES**

- a. Which courses?
D3 advanced restorative.
- b. What System?
E4D
- c. How long have you been using a CAD/CAM System?
3 years
- d. How are you using CAD/CAM in your pre-clinical courses?
2 years
- e. What are the prerequisites for its use?
Attend lectures
- f. When do students get to use it?
Preclinical training in lab
- g. Who provides supervision?
Lead instructor with assistance from other trained instructors
- h. What training did they receive?

training for Lead instructor attended training in Dallas. There has been site other instructors by this lead and local company personnel

ASDOH

- Are you using CAD/CAM in your clinical courses?

- **YES**

- Which courses?

In the comprehensive care units and prosth clinic

- What System?

Sirona

- 2 Omnicam and 15 Blue cam AC,
- MCXL mill
- in fire Sintering oven
- XG3D Conebeam CT with Sirona Galileos implant software

3Shape

- One Trio intral oral camera
- 3Shape premium design
- 3shape implant studio

Exocad (in house lab)

- DOF Desktop scanner
- High production mill
- 3D printer

Computer “lab” in CAD-CAM Clinic with 4 powerful 3D capable

Workstations

- Sirona cerc4.4, Gallieosimplant,3Shape, premium design Software, Anatomage, Invivo5, Simplant

Avadent (digital denture)

- How long have you been using a CAD/CAM System?

We used on a very limited basis for the last 5 years. But this last year we hired a faculty 2 days a week in the clinic to work with the students on CAD_CAM cases only

- How are you using CAD/CAM in your pre-clinical courses?
- As explained above
- What are the prerequisites for its use?
Finish pre-clinical training
- When do students get to use it?
In the clinic during the Third & second year. Second year in the pre-clinic
- Who provides supervision?
We have 2 faculty members responsible for the CAD -CAM clinic besides several faculty in the clinic who attended training. We try to provide more training and support for faculty to increase those is capable of treatment planning, supervising and teaching CAD-CAM.
- What training did they receive?
Over the years the company provided the school with 5 training sessions at the school. Also selected faculty attend the training at the company site.

MWU

- i. Are you using CAD/CAM in your clinical courses?
 2. YES
 - a. Which courses? – **In all patient care.**
 - b. What System?
PlanScan. CEREC on a limited basis at specific sites.
 - c. How long have you been using a CAD/CAM System? – **Clinically since 2010 when our clinic first opened.**
 - d. How are you using CAD/CAM in your pre-clinical courses? **Multiple projects and rotations**
 - e. What are the prerequisites for its use?
Training with faculty-limited
 - f. When do students get to use it?
In the D1 year-as early as possible with scanner only.
 - g. Who provides supervision?
Faculty
 - h. What training did they receive?
Manufacturer training

UBC

- i. Are you using CAD/CAM in your clinical courses?
 1. No

- a. Do you plan on incorporating CAD/CAM clinically? **yes**
 - i. What System? CEREC
- b. How soon? Hopefully 2017-2018
- 2. **YES see i. 2.**
 - a. Which courses? Integrated Clinical Care (ICC)
 - b. What System? CEREC
 - c. How long have you been using a CAD/CAM System? 3 years
 - d. How are you using CAD/CAM in your pre-clinical courses?
See i. 2.
 - e. What are the prerequisites for its use? See i. 2.e.
 - f. When do students get to use it? See i. 2.f.
 - g. Who provides supervision? See i. 2.g.
 - h. What training did they receive? See i. 2.h.

LLU

- i. Are you using CAD/CAM in your clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?
 - b. How soon?
 - 2. **YES**
 - a. Which courses? Restorative Clinic Course
 - b. What System? CEREC
 - c. How long have you been using a CAD/CAM System? 10 yrs
 - d. How are you using CAD/CAM in your pre-clinical courses?
 - e. What are the prerequisites for its use? Passing pre-clinical courses that teach its use and a patient that meets the criteria for its use.
 - f. When do students get to use it? Any time after they begin their clinic experience
 - g. Who provides supervision? Clinic instructors
 - h. What training did they receive? Hands-on training, working with students in the pre-clinical labs

UNLV

- i. Are you using CAD/CAM in your clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating CAD/CAM clinically?
 - ii. What System?
 - b. How soon?
 - 2. **YES**

- a. Which courses? Essentially, only one Team with one faculty in clinic so far. Probably 10/81 DS4 students and 3-5 DS3 students. Approx. 20 restorations placed in Spring 2016, including one same day.
- b. What System? CEREC (Sirona) blue cam and CEREC 3 milling unit; Omnicam and other scanners in purchasing process.
- c. How long have you been using a CAD/CAM System? Spring 2016
- d. How are you using CAD/CAM in your pre-clinical courses? Clinical? Primarily to provide in-house produced eMax full crowns or large onlays.
- e. What are the prerequisites for its use? Show interest and review ppts posted on school web, demonstrate preparation to the one faculty; schedule at least one experienced student to assist for prep appt. Practice in sim lab for spray and software preferred. Also, had a few students use it simply for prep analysis prior to provisional fabrication and final impression. Faculty coverage must have experience, or have attended training.
- f. When do students get to use it? In general Team clinic, currently no restrictions due to very small demand. (More interest than effort...it requires a significant but do-able extra effort.)
- g. Who provides supervision? One faculty assisted by a few experienced students.
- h. What training did they receive? No formal training. Simply attempting to gain enough momentum to get funding from the Dean. Money has been committed for FY'17 and it feels like we are moving forward, but will not "explode" yet. There is interest in finding funding for new equipment through our volunteer Veteran's Clinic, so anticipate 3-5 years out, the program will be expanded to include additional experiences in sim lab. Clinic will likely be same-day restorations as an "advanced" opportunity, but the vast majority of all impressions will be digital scans. Current alginate and PVS impressions will still be taught, but will be a minority of procedures done in clinic. The time efficiency will win out financially and maybe the cost savings compared to multiple PVS impressions may prove significant.

OHSU

- Are you using CAD/CAM in your clinical courses? The clinical years are considered part of a course and CAD/CAM restorations are performed
 - **NO**
 - **YES** Do you plan on incorporating CAD/CAM clinically? It is being used clinically, although no student to date has delivered a restoration within the same clinic session
 - What System? CEREC
 - How soon?

UCLA

- Are you using CAD/CAM in your clinical courses?
 - **YES**
 - Which courses?
Advanced Restorative Clinic (two times per week) and offsite clinic (e.g., Venice Clinic)
 - What System?
CEREC Bluecam, CEREC MCXL (milling unit)
 - How long have you been using a CAD/CAM System?
Since 2012
 - How are you using CAD/CAM in your pre-clinical courses?
To provide experiences of using it.
 - What are the prerequisites for its use?
Didactic Indirect Restoration Courses
 - When do students get to use it?
During 3rd or 4th year
 - Who provides supervision?
Only trained/experienced faculty
 - What training did they receive?
Preclinical Indirect Restoration courses

ROSE

Are you using CAD/CAM in your clinical courses?

2. NO

- a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?
- b. How soon?

3. YES

- a. Which courses? Clinic
- b. What System? E4D and 3Shape
- c. How long have you been using a CAD/CAM System? Just started in 2016
- d. How are you using CAD/CAM in your pre-clinical courses? – In the D1 dental anatomy course the students are given

instructions in groups of 10 to 12 students in scanning and design. That instruction and practice continues throughout the whole academic year. It also includes exercises in milling, glazing and finishing on typodont teeth.

- e. What are the prerequisites for its use? Completing the training with “experts” and the completion of exercises
- f. When do students get to use it? See above; during regular clinic
- g. Who provides supervision? –designated faculty “experts” and then trained faculty - presently have 1-3 available
- h. What training did they receive? From the designated faculty “experts” – from Planmecca in Texas and personal use in their practices

UOP

Are you using CAD/CAM in your clinical courses?

1. NO

- a. Do you plan on incorporating CAD/CAM clinically? YES
 - i. What System? TRIOS / PLANMILL
- b. How soon? 1 – 2 YEARS

2. YES SCAN ONLY

- a. Which courses?
- b. What System?
- c. How long have you been using a CAD/CAM System?
- d. How are you using CAD/CAM in your pre-clinical courses?
- e. What are the prerequisites for its use?
- f. When do students get to use it?
- g. Who provides supervision?
- h. What training did they receive?

UCSF

- i. Are you using CAD/CAM in your clinical courses?

Traditional impressions, sent to the lab and the crowns are sometimes fabricated using CAD CAM technique.

USC

- i. Are you using CAD/CAM in your clinical courses?

1. NO

- ii. Do you plan on incorporating CAD/CAM clinically?

- i. What System?

How soon?

2. YES

- a. Which courses?
Clinical Human Dentistry A and B courses
- b. What System?

CEREC, Planmeca, and others

- c. How long have you been using a CAD/CAM System?
Clinically, since 2010.
- d. How are you using CAD/CAM in your pre-clinical courses?
Subject is covered in multiple pre-clinical modules.
- e. What are the prerequisites for its use? *All DDS students are required to successfully complete preclinical courses.*
- f. When do students get to use it? *3rd trimester of D1 is their first exposure.*
- g. Who provides supervision? *Designated restorative faculty*
- h. What training did they receive? *Trained by other CAD/CAM faculty, calibration sessions, or by the companies.*

WUHS

Are you using CAD/CAM in your clinical courses?

1. YES

- a. Which courses? *Patient care.*
- b. What System? *Planmeca Fit*
- c. How long have you been using a CAD/CAM System? *1 year and 6 months*
- d. How are you using CAD/CAM in your pre-clinical courses? *See above.*
- e. What are the prerequisites for its use? *Patient cases with where indicated.*
- f. When do students get to use it? *Patient cases with where indicated.*
- g. Who provides supervision? *Any Clinical Faculty (all were trained)*
- h. What training did they receive? *Scanning, Design, Milling, Characterization and practice CAD/CAM exercises.*

UW

i. Are you using CAD/CAM in your clinical courses?

1. NO

- a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?
- b. How soon?

2. YES

- a. Which courses?

3rd year Prosthodontic / Operative Clerkship and 4th year General Practice Clinic

b. What System?

3Shape Trios3

c. How long have you been using a CAD/CAM System?

3 years

d. How are you using CAD/CAM in your pre-clinical courses?

3rd year Prosthodontic / Operative Clerkship

The clinical experience of CAD/CAM, starting first with scanning the prepared tooth intra-orally and an inter-occlusal record. The focus was to familiarize students with the digital workflow and to further their training in the intraoral scanning techniques. The restorations were designed based on the digital impression and milled in the dental laboratories. 3D-printed models were also fabricated to verify the contours, proximal contacts and occlusion of the CAD/CAM-generated restorations.

e. What are the prerequisites for its use?

The students must complete the CAD/CAM training both in didactic and laboratory at the 2nd year preclinical course; Advanced lectures in the digital workflow of restorative dentistry are given at the didactic component of the Prosthodontic / Operative Clerkship.

f. When do students get to use it?

4th year General Practice Clinic

As the students gained CAD/CAM training and experience incrementally from their 2nd year preclinical course and 3rd year clerkship, the next level of advancement would be to complete all the procedures required for the CAD/CAM- generated restorations in one clinical session. The procedures include digital impression, virtual design, milling, sintering, staining/glazing and final cementation. Because of the limited time and facility available, selected cases are used to demonstrate the entire process and the students will be able to observe/simulate the procedures.

g. Who provides supervision?

The clinical faculty who are experienced in cad/cam technology

h. What training did they receive?

The selected faculty all have cad/cam experiences at their practices. A one-day training course to the faculty was provided to calibrate the teaching methodology.

Are you using CAD/CAM in your clinical courses? No

- How soon? This, or at latest, next academic year.

iii. Are you using virtual reality haptic feedback training?

1. NO

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

- i. What System?

- b. How soon?

2. YES

- a. Which courses?
- b. What System?
- c. How long have you been using Virtual Reality Haptic Feedback Training?
- d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
- e. Is it efficacious?

UA

Are you using virtual reality haptic feedback training?

1. NO

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

- NO

- i. What System?

- b. How soon?

2. YES

- a. Which courses?
- b. What System?
- c. How long have you been using Virtual Reality Haptic Feedback Training?
- d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
- e. Is it efficacious?

ASDOH

- Are you using virtual reality haptic feedback training?

- **NO**
 - Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?
Not at the present time
 - What System?
Not Sure
 - How is it being used?
Do not know

MWU

- iii Are you using virtual reality haptic feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?
Not at this time.
 - 1. What System?
 - b. How soon?
 - 2. Yes
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?

UBC

- iii. Are you using virtual reality haptic feedback training?
 - 1. NO
 - Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? No

LLU

- iii. Are you using virtual reality haptic feedback training?
 - 1. NO
 - i. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? Not in the near future, we have greater needs to be filled first.

UNLV

- iii. Are you using virtual reality haptic feedback training?
 - 1. **No**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? Doubtful at this moment
 - i. What System?
 - b. How soon? Not in the next year.

OHSU

- Are you using virtual reality haptic feedback training?
NO OHSU currently is not using virtual reality haptic technology
 - Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? Not currently planned.

UCLA

- Are you using virtual reality haptic feedback training?
 - **NO**
 - Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? No
 - What System? We have briefly thought about DentSim and have considered PrepCheck, but are unsure how we could utilize it in our curriculum.
 - How soon? Unknown

ROSE

- iii. Are you using virtual reality haptic feedback training?
 - 1. **NO** – Haptic refers to systems such as Moog
 - Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? –not at the present due to cost

UOP

- Are you using virtual reality haptic feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **NO**

UCSF

- iii. Are you using virtual reality haptic feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

2. No

USC

iii. Are you using virtual reality haptic feedback training?

NO

Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? *No near term plans.*

WUHS

i. Are you using virtual reality haptic feedback training?

YES

a. Which courses? *Amalgam, Composite, Fixed Prosthodontics.*

b. What System? *MOOG Simodont*

c. How long have you been using Virtual Reality Haptic Feedback Training? *2 years.*

d. Who provides supervision?

ii. What training did they receive? *Introductory experiences, faculty, and laboratory manager.*

e. What System? *MOOG Simodont*

iii. How is it being used? *Practice preparations with 30 minutes sessions.*

f. Is it efficacious? *Yes. It allows efficiency and students with exposure at a given window prior to exam performed better. Virtual patients and Frasaco Typodont is coming.*

UW

i. Are you using virtual reality haptic feedback training?

a. NO

i. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? *No plan on using the Virtual Reality Haptic Feedback Training at this point*

No plan to incorporate the system at this moment

UU

• Are you using virtual reality haptic feedback training?

• **NO**

• Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? *No, cost prohibitive for us at the moment*

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. **NO-**

- a. Do you plan on incorporating Digital Impressions in your clinical courses?
- b. What System?
- c. How soon?

2. YES

- a. What System?
- b. How long have you been using a Digital Impression System?
- c. What are the prerequisites for its use?
- d. When do students get to use it?
- e. Who provides supervision?
- f. What training did they receive?

UA

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO

- a. Do you plan on incorporating Digital Impressions in your clinical courses?
- b. What System?
- c. How soon?

2. YES

- a. What System?
3M
- b. How long have you been using a Digital Impression System?
Not in use at this time due to safety concerns with the composition of the powder.
- c. What are the prerequisites for its use?
- d. When do students get to use it?
- e. Who provides supervision?
- f. What training did they receive?

ASDOH

- Are you using an Intraoral Digital Impression system in your clinical courses?

- **YES**

- What System?
Sirona & 3Shape
- How long have you been using a Digital Impression System?
5 years
- What are the prerequisites for its use?
Pre-clinic training

- When do students get to use it?
Clinic
- Who provides supervision?
Faculty

MWU

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO

- a. Do you plan on incorporating Digital Impressions in your clinical courses?
- b. What System?
- c. How soon?

2. YES

- a. What System?
Planscan and 3Shape
- b. How long have you been using a Digital Impression System? **Since**

2010

- c. What are the prerequisites for its use?
Students receive a year of preclinical training prior to its use.
- d. When do students get to use it?
The first day they enter clinic
- e. Who provides supervision?
Clinical faculty
- f. What training did they receive?
Either training at the PlanScan facility in Texas or in our simulation clinic.

UBC

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO

- a. Do you plan on incorporating Digital Impressions in your clinical courses? yes
- b. What System? CEREC
- c. How soon? Hopefully 2017-18

2. YES

- a. What System?
- b. How long have you been using a Digital Impression System?
- c. What are the prerequisites for its use?
- d. When do students get to use it?

- e. Who provides supervision?
- f. What training did they receive?

LLU

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. YES
 - a. What System? Cerec
 - b. How long have you been using a Digital Impression System? 10 yrs
 - c. What are the prerequisites for its use? Passing pre-clinical courses that teach its use and a patient that meets the criteria for its use.
 - d. When do students get to use it? As soon as they begin seeing patients in the clinic.
 - e. Who provides supervision? Clinic instructors.
 - f. What training did they receive? Hands-on training, working with students in the pre-clinical labs

UNLV

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. YES
 - a. What System? CEREC blue cam as above; others in purchasing process at this time
 - b. How long have you been using a Digital Impression System?
 - c. What are the prerequisites for its use?
 - d. When do students get to use it?
 - e. Who provides supervision?
 - f. What training did they receive?

OHSU

- Are you using an Intraoral Digital Impression system in your clinical courses?
 - **NO**
 - Do you plan on incorporating Digital Impressions in your clinical courses?
 - What System?
 - How soon?

- **YES**
 - What System? CEREC
 - How long have you been using a Digital Impression System? 18 months, clinically. 7-8 years preclinically
 - What are the prerequisites for its use? Preclinical course completion
 - When do students get to use it? In the 3rd and 4th clinical years
 - Who provides supervision? CEREC trained faculty
 - What training did they receive? Multiple courses from Sirona (approx. 20 hours)

UCLA

- Are you using an Intraoral Digital Impression system in your clinical courses?
 - **YES**
 - What System?
CEREC but only for ACC inlays/onlays/crown.
 - How long have you been using a Digital Impression System?
Since 2012
 - What are the prerequisites for its use?
Preclinical didactic courses.
 - When do students get to use it?
3rd and 4th year
 - Who provides supervision?
Only trained/experienced faculty
 - What training did they receive?
Preclinical Indirect Restoration courses

ROSE

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 2. YES
 - a. What System? E4D
 - b. How long have you been using a Digital Impression System? - 2016

- c. What are the prerequisites for its use? Preclinical training and exposure with faculty clinical supervision – our “experts”
- d. When do students get to use it? – presently D3 and D4 years
- e. Who provides supervision? Designated “experts”
- f. What training did they receive? –previous experience in practice, E4D training by Planmecca, training by school “experts”

UOP

Are you using an Intraoral Digital Impression system in your clinical courses?

- 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
- 2. YES
 - a. What System? TRUDEF / iTERO
 - b. How long have you been using a Digital Impression System? 7 YEARS
 - c. What are the prerequisites for its use? NONE
 - d. When do students get to use it? 4th QTR FIRST YEAR
 - e. Who provides supervision? FACULTY / COURSE DIRECTORS
 - f. What training did they receive? LECTURE / HANDS-ON

UCSF

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

- 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses:
Under discussion
 - b. What System?
 - c. How soon? Under discussion

USC

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

- 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
- 2. YES
 - a. What System?
CEREC, E4D, iTero, 3M Lava
 - b. How long have you been using a Digital Impression System?
Since 2010
 - c. What are the prerequisites for its use? *Successful completion of preclinical modules*

- d. When do students get to use it? *As soon as they have a patient requiring the procedure (starting D3)*
- e. Who provides supervision? *Designated CAD/CAM faculty*
- f. What training did they receive? *Please see other responses.*

WUHS

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 2. YES
 - a. What System? *Planmeca Fit, iTero element (coming soon)*
 - b. How long have you been using a Digital Impression System? *1 ½ years.*
 - c. What are the prerequisites for its use? *Patient case where indicated.*
 - d. When do students get to use it? *Patient case where indicated.*
 - e. Who provides supervision? *Faculty and Self-guided.*
 - f. What training did they receive? *Full training and experiences prior to clinical use.*

UW

- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. YES
 - a. What System?
3Shape Trios3
 - b. How long have you been using a Digital Impression System? *2 years*
 - c. What are the prerequisites for its use?
The students must complete the CAD/CAM training both in didactic and laboratory at the 2nd year preclinical course
 - d. When do students get to use it?
3rd year Prosthodontic / Operative Clerkship and 4th year General Practice Clinic
 - e. Who provides supervision?
The clinical faculty who are experienced in digital impression
 - f. What training did they receive?
The selected faculty have different level of digital impressions at their practices. A one-day training course to the faculty was provided to calibrate the teaching methodology.

UU

- Are you using an Intraoral Digital Impression system in your clinical courses?

- **NO**

- Do you plan on incorporating Digital Impressions in your clinical courses? Yes
- What System? 3M True Definition
- How soon? This academic year

v. Are you using 3D printing for any pre-clinical or clinical application?

1. **NO**

- a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
- b. What System?
- c. How soon?

2. **YES**

- a. What System?
- b. How long have you been using 3D printing?
- c. How do you use 3D printing?
- d. What are the prerequisites for its use?
- e. When do students get to use it?
- f. Who provides supervision?
- g. What training did they receive?

UA

v. Are you using 3D printing for any pre-clinical or clinical application?

1. **NO**

- a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
Not at this time.
- b. What System?
Unknown
- c. How soon?
Unknown

2. **YES**

- a. What System?
- b. How long have you been using 3D printing?
- c. How do you use 3D printing?
- d. What are the prerequisites for its use?
- e. When do students get to use it?
- f. Who provides supervision?
- g. What training did they receive?

ASDOH

- Are you using 3D printing for any pre-clinical or clinical application?
 - **NO**
 - Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?

We have a 3D printer in the university. Some of the faculty tried for but it was not giving us the results. Too slow not right size called we are looking at purchasing one

- What System?

In the process of looking for other systems which could work with our needs

- How soon?
During the next year

MWU

- v. Are you using 3D printing for any pre-clinical or clinical application?
1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 2. **YES**
 - a. What System?
Stratasys
 - b. How long have you been using 3D printing?
Beginning September 2016
 - c. How do you use 3D printing?
Implant surgical guides, bite splints.
 - d. What are the prerequisites for its use? **NA**
 - e. When do students get to use it? **NA**
 - f. Who provides supervision? **NA**
 - g. What training did they receive? **NA**

UBC

- v. Are you using 3D printing for any pre-clinical or clinical application?
1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? No
 - b. What System?
 - c. How soon?

LLU

- v. Are you using 3D printing for any pre-clinical or clinical application?
1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 2. **YES**

- a. What System? Three shape.
- b. How long have you been using 3D printing? 2 yrs
- c. How do you use 3D printing? Fabrication of RPD frameworks and night guards.
- d. What are the prerequisites for its use? None
- e. When do students get to use it? The students do not directly use the system. Impressions are taken the traditional way and study casts are poured. Trained lab technicians scan the casts from which the frameworks and night guards are made.
- f. Who provides supervision? NA
- g. What training did they receive? NA

UNLV

- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. NO
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 - 2. YES
 - a. What System? Not in-house yet. Last summer, a local international lab (Core 3d Centres) printed models and over-sized MMA crowns for DS2 Summer sim course to practice adjusting and cementing crowns. Very well received. In purchasing process at this time.
 - b. How long have you been using 3D printing? Outside of orthodontic use, one year.
 - c. How do you use 3D printing? We foresee 3D printing growing and perhaps replacing typodont teeth, especially for practicals. Within 5 years, it will be possible to have the colors and textures of healthy/unhealthy enamel and dentin, plus pulpal tissue. This will enable customized reproduction of real carious teeth from CBCT images to test all students with the same realistic non-human practical exam. Supposedly, the technology is already there, just very \$\$\$\$.
 - THIS IS GOING TO BE HUGE!!!!**
 - Plan to use for printing of implant surgical stints, orthotics, research applications, dentures, and temporaries. It should replace milling ultimately.
 - d. What are the prerequisites for its use? Training.
 - e. When do students get to use it? Next year.
 - f. Who provides supervision? Yes, at this time.
 - g. What training did they receive? Incorporation into pre-clinical.

OHSU

- Are you using 3D printing for any pre-clinical or clinical application?
 - **NO**
 - Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? Yes, in the future. We have two 3-D printing systems for research purposes and we are running experiments with these at this time.
 - What System?
 - How soon?
 - **YES**
 - What System? Clinically, we have been using SIMPLANT guides for all implant cases
 - How long have you been using 3D printing? 4 months
 - How do you use 3D printing? To plan the implant placement and generate the guide
 - What are the prerequisites for its use? Completion of preclinical implant course
 - When do students get to use it? 3rd and 4th clinical years
 - Who provides supervision? Implant faculty
 - What training did they receive? Faculty get training as part of the Implant or Restorative Faculty study group.

UCLA

- Are you using 3D printing for any pre-clinical or clinical application?
 - **NO**
 - Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? No
 - What System? Unknown
 - How soon? Unknown

ROSE

- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?-not on an in-house basis at the present time
 - b. What System?
 - c. How soon?
 - 2. **YES**

- a. What System? Pala Digital Dentures
- b. How long have you been using 3D printing? – 2 months (May-June 2016)
- c. How do you use 3D printing? Strict clinical supervision only- Prosthodontist
- d. What are the prerequisites for its use?- Patient selection by prosthodontist
- e. When do students get to use it? – regular clinic with strict prosthodontist supervision
- f. Who provides supervision? – prosthodontist
- g. What training did they receive? Sessions with Heraeus Kulzer representative
- h. Pre-clinic applications are for production of models, etc. We have had some models produced by companies outside of the College

UOP

Are you using 3D printing for any pre-clinical or clinical application?

- 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? YES
 - b. What System? UNKNOWN
 - c. How soon? 2 – 3 YEARS

UCSF

Are you using 3D printing for any pre-clinical or clinical application?

- 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
UNKNOWN
 - b. What System? UNKNOWN
 - c. How soon? UNKNOWN

USC

v. Are you using 3D printing for any pre-clinical or clinical application?

- 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
- 2. **YES**
 - a. What System? *Form 1+*
 - b. How long have you been using 3D printing? *One year*
 - c. How do you use 3D printing? *Surgical guide and models*
 - d. What are the prerequisites for its use? *Still evaluating.*
 - e. When do students get to use it? *Cases where students are selected for guided surgical placement of implants for their patients.*

- f. Who provides supervision? *CAD/CAM faculty supervise the fabrication of the surgical guide.*
- g. What training did they receive? *Trained provided by company.*

WUHS

- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? *Yes.*
 - b. What System? *Envisiontec, OLO (now called ONO), Form2*
 - c. How soon? *Early 2017*

UW

- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System?
Stratsys 3D Printer
 - b. How long have you been using 3D printing?
2 years
 - d. How do you use 3D printing?
After the students send the digital impression files to the dental laboratories, 3D print models are fabricated in the dental laboratories. The models are used to evaluate the proximal contacts and occlusion of the milled ceramic restorations.
 - e. What are the prerequisites for its use?
The students must complete the CAD/CAM training both in didactic and laboratory at the 2nd year preclinical course
 - f. When do students get to use it?
3rd year Prosthodontic / Operative Clerkship and 4th year General Practice Clinic
 - g. Who provides supervision?
The clinical faculty who are experienced in cad/cam technology
 - h. What training did they receive?
The selected faculty all have cad/cam experiences at their practices. A one-day training course to the faculty was provided to calibrate the teaching methodology.

UU

- Are you using 3D printing for any pre-clinical or clinical application?
 - **NO**
 - Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? No

vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

UA

No response

ASDO

Attend training & CE sessions

MWU

Very long answer. Requires regular calibration.

UBC

I've started including a few faculty in the student CE course so they get some training and engage in the teaching. Additionally having CEREC cases going on in the clinic draws some attention too, so more instructors will be interested. Ultimately the intention is to include it in the curriculum and then additional instructors will be trained for that. Since the hardware is limited, only a few cases can be going on at the same time, we'll create a specialized group of instructors to help students with their patient cases. The best resource are sessional (part time) instructors who are already using the technology in their practice.

LLU

Provide opportunities for hands-on training and rotate faculty through the pre-clinical labs where the technology is taught.

UNLV

Start with student interest and use to drive the demand. Convince the Dean to continue investing in the technology of the school and work with what you can get. Not sure it will pay for itself, but schools with more use of this technology may get more high quality students than those that do not offer it.

OHSU

As far as getting faculty on board, we do that via the faculty CAD/CAM study club. We meet monthly in the evening once pre month during the school year, and use that to train faculty on use of CAD/CAM, update them on clinic protocols, and use it as a forum to show cases or potential cases to discuss indications, techniques, materials, mistakes, lessons learned

UCLA

No response

ROSE

We are having no problem in getting faculty on board – our only limitation is time and cost - not enthusiasm I believe most of our faculty are on board; this has not seemed to be much of an issue for us

UOP

CREATE A SUPER_USER GROUP TO TRAIN OTHERS

UCSF

No response

USC

Have not encountered any major issues in terms of faculty being on board. We understand the limitations and advantages of the system, and we do our best to use the technology when it is the best option given the specific needs of the patient and their dentition.

WUHS

Structured exposure, practice, and hands on application.

UW

The students' interests in learning CAD/CAM technology are motivating the faculty to integrate the existing preclinical and clinical courses with this new technology.

UU

Many of our faculty are well practiced with technologies, and are on board for the integration of more technologies.

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?
- ii. What are your normal hours per clinical session?
- iii. How are your clinical groups set-up?
- iv. How do your clinical groups function?
- v. How long have you had your current structure?
- vi. Do you plan on changing in the near future?

UA

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?
32, 8 international students are added in D3 and D4.
- ii. What are your normal hours per clinical session?
3 hours
 - ii. How are your clinical groups set-up?
Pods of 8 D3 and 8 D4 students with a clinical team leader.
 - iii. How do your clinical groups function?
Team leader is responsible for all patient treatment plans, student case assignments, etc. Usually a patient is assigned to one student who will perform all the required treatment. There are some shared patients driven by the circumstances.
 - iv. How long have you had your current structure?
4 years
 - v. Do you plan on changing in the near future?
Not determined at this time.

ASDOH

Clinical Organizational Structure

- How many pre-doctoral students do you have per class?
76
- What are your normal hours per clinical session?
8-5 Pm
- How are your clinical groups set-up?
In 4 Comprehensive care units (CCU)
- How do your clinical groups function?
There are 2 CCU directors in each CC and 2 adjunct faculty to help. Every ccu director has assigned certain students to follow up their progress. The CCu directors cover each other students if needed. Each CCU director treatment plan with their students or refer the student to the specialty directors. We have implemented the group of four setting, which is consisting of two D3 and two D4 students. They cover each other patient especially we have our D4s out on external rotation during the year.
How long have you had your current structure?
- Since the school started we had originally one CCu director but when we increase our class size we increased the number of the CCU directors
- Do you plan on changing in the near future?
No

MWU

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?

140

- ii. What are your normal hours per clinical session?

8:30-11:30, 1:00-4:30, no morning session on Mondays

- iii. How are your clinical groups set-up?

Each suite has 14 pairs which consist of a D3 and a D4. Each suite also has a hygienist, two practice assistants, and 3 faculty (One Clinical Care Coordinator and two Clinical Care Faculty)

- iv. How do your clinical groups function?

Each pair has a family of patients assigned to them for whom they are responsible to diagnose, treat, and maintain. CCC oversees treatment planning and clinical care, and the CCFs help oversee the clinical care.

- v. How long have you had your current structure?

Basically the same structure since 2010, though we have expanded class size and added an additional CCF in each suite.

- vi. Do you plan on changing in the near future?

No immediate plans though we always keep our minds open for better, more efficient ways of doing things.

UBC

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? 55

- ii. What are your normal hours per clinical session? 9:30-12:30 & 2:00-5:00

- iii. How are your clinical groups' set-up? **We have group practice groups and clinical cohorts.**

Group Practice groups - set-up with a combination of weak and strong students in each year and an attempt at matching personalities with group buddies between years. May consist of up to 12 students per group practice. Function to liaison with their clinical advisor, forums for discussion on any issues arising related to Integrated Care Clinic and also for group presentation of projects.

- iv. How do your clinical groups function? **Clinical Cohorts** – set-up to establish a consistent 8:1

student: practitioner ratio and to try to keep consistency between instructor and cohort

- v. How long have you had your current structure? **8 years**
- vi. Do you plan on changing in the near future? **No plans at present**

LLU

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? 90-100
- ii. What are your normal hours per clinical session? 8-noon and 1-5 pm
- iii. How are your clinical groups set-up? 5 modules that include 3 pods, each with 7-9 D3 and 7-9 D4 students.
- iv. How do your clinical groups function? Through the Module Leaders. We are now setting up a system that will also include student leadership in each pod.
- v. How long have you had your current structure? 14 months
- vi. Do you plan on changing in the near future? No

UNLV

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?
80
- ii. What are your normal hours per clinical session?
3hrs
- iii. How are your clinical groups set-up?
There are 4 clinical teams made up of about 20 students per class(2nd, 3rd and 4th year) for a total of about 60 students per team. Comprehensive care is provided in each team clinic.
- iv. How do your clinical groups function?
Each clinical team has a Team Leader and on average 3 other full-time faculty. The students are assigned a mentor who is one of the full-time faculty assigned to that team. Treatment planning is completed with this mentor. All treatment except complex Oral Surgery, Endo, and Ortho is provided in the Team Clinic under the direct supervision of 3-4 full/part-time faculty per clinic session. Peds to age of 13 are sectioned into a separate clinic.
- v. How long have you had your current structure?
12 years
- vi. Do you plan on changing in the near future?
No

OHSU

- **Clinical Organizational Structure**
 - How many pre-doctoral students do you have per class? 75
 - What are your normal hours per clinical session? 2.5 hours of patient care with additional 30 minutes for documentation, self-assessment, instructor feedback
 - How are your clinical groups set-up? Group practices consisting of 12 3rd year and 12 4th year students working in the same area for Restorative Dentistry and Periodontology. Endo, Peds and OMS have separate clinics
 - How do your clinical groups function? Direct Supervision by faculty and Group leader in the same areas as described above. 3rd and 4th year students have operatories next to each other. Mentoring of advanced students takes place with each other and with pre-clinical students rotating through the clinic 3-4 times in a 12 week term.
 - How long have you had your current structure? OHSU went to an integrated group practice model in 2007-2008
 - Do you plan on changing in the near future? We plan to continue with the group practice model, but are looking for more experiences for the 1st and 2nd year students to engage in earlier in the curriculum.

UCLA

- **Clinical Organizational Structure**
 - How many pre-doctoral students do you have per class? 88
 - What are your normal hours per clinical session? 3 hrs (9-12, 2-5, and 6-9)
 - How are your clinical groups set-up? There are four groups (A-D), with the approx. 200+ students divided up amongst them.
 - How do your clinical groups function?

Each group has GPD and GPA. Each cubicle has 2 students (3rd and 4th year_ assigned to it (home cubicle system). This is for restorative, perio, and removable. Endo, Peds, and OS are in separate sections.
 - How long have you had your current structure? For about a decade.
 - Do you plan on changing in the near future?

This structure will be changed to geographic cubicle system where certain region will be assigned for restor, perio, etc., and students reserve the cubicle as needed.

ROSE

- b. **Clinical Organizational Structure**
 - i. How many pre-doctoral students do you have per class? – 80 ± 2-4
 - ii. What are your normal hours per clinical session? 9 am to 11:30 am; 1 pm to 4:30 p.m.

Students are encouraged to shorten appointment times to 2 hours and try to see more than one patient per clinical session.

- iii. How are your clinical groups set-up? 8 Clinical practice teams of 10 D3's and 10 D4's

Students work in pairs – main provider and secondary provider (assistant), normally a D4 and D3 pair

- iv. How do your clinical groups function? –Supervision is provided by 8 Clinical Team Leaders

As “clinical practice teams”, 2 per “quad” of the clinic which share a coordinator and scheduler – and the CPT Leader (full-time faculty)

- v. How long have you had your current structure? – Basically since we started clinic 3 years

ago. However, we have gone from 4 clinical teams to 8 clinical teams

The current structure has been about 8 months

- vi. Do you plan on changing in the near future? - No

UOP

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? 140

DDS / 24 IDS

- ii. What are your normal hours per clinical session?

M & TH: 10A – 1P, 2-5P, 6-8:30P TU, W, F: 9A-1P, 2-5P

- iii. How are your clinical groups set-up? 8 GROUP PRACTICES, ALPHIBETICAL ORDER

- iv. How do your clinical groups function? GENERALIST MODEL

- v. How long have you had your current structure? 4 YEARS

- vi. Do you plan on changing in the near future? Likely

UCSF

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?

90 domestic and 28 international

- ii. What are your normal hours per clinical session?

8:30AM-12:00PM, 1:30-5:00PM, and 6-8:30PM (evening hours are Tues/Thursday only)

- iii. How are your clinical groups set-up?

10 students assigned to one coach. Coach is responsible for overseeing students' clinical progress in all clinical courses (general dentistry, fixed prosth, rem prosth, perio, endo, clinical externships). Coach serves as a career mentor and works with coaching group once per week. On other days of the week when students are in clinic, students are assigned to rotating "row faculty." Groups are set up so that incoming students are language-paired with outgoing students. Each student has a clinic partner, therefore there are five groups of clinic partners in each coaching group.

iv. How do your clinical groups function?

See above

v. How long have you had your current structure?

15 years

vi. Do you plan on changing in the near future?

As part of an overall curriculum revision, we are considering alternate models

USC

b. Clinical Organizational Structure

i. How many pre-doctoral students do you have per class? *175 students.*

ii. What are your normal hours per clinical session? *8-12 and 1-5 daily, 6-9 2 evenings*

iii. How are your clinical groups set-up? *Student body assigned to one of nine group practice clinics*

iv. How do your clinical groups function? *Group practice director does treatment planning, patient assignment, and tracking of student progress.*

v. How long have you had your current structure? *Group practice clinics has been introduced in 1989.*

vi. Do you plan on changing in the near future? *No plans to change in the near future*

WUHS

b. Clinical Organizational Structure

i. How many pre-doctoral students do you have per class? *69 students*

ii. What are your normal hours per clinical session? *8-11:30 am, 1-4:30 pm.*

iii. How are your clinical groups set-up? *Divided into 4 groups with vertically paired D3 & D4 students. We have a team clinic approach running.*

iv. How do your clinical groups function? *Similarly with some independence*

v. How long have you had your current structure? *5 years.*

vi. Do you plan on changing in the near future? *We are piloting a team clinic model where D4s supervise 2 D3s and work out of two chairs along with an RDAEF.*

UW

b. Clinical Organizational Structure

i. How many pre-doctoral students do you have per class?

65-68 students

ii. What are your normal hours per clinical session?

Morning sessions: 9am – 12pm

Afternoon sessions: 1:30pm – 4pm

vi. How are your clinical groups set-up?

For the 3rd year Clerkships, the clinical groups set-up are based on 4 different disciplines (Operative/Endodontics, Prosthodontics/ Periodontics, Oral Diagnosis & Treatment Planning/Oral Surgery, Orthodontics/Pedodontics)

For the 4th year, the clinical groups set-up are based on General Practice Training.

iv. How do your clinical groups function?

For the 3rd year, the class is divided into 4 groups. Each group has a 12-week rotation training at each clerkship. Each clerkship has both didactic and clinical components. For the 4th year, it's a patient-centered General Practice clinic. Each patient receives total dental care from his/her assigned student. The students discuss the treatment plans with the advisor faculty.

v. How long have you had your current structure?

One year

vi. Do you plan on changing in the near future?

It is a new curriculum so is not expected to change in the near future.

UU

• Clinical Organizational Structure

- How many pre-doctoral students do you have per class? Our D4 class is 20 students, our D3 class is 23 students, our D2 class is 28, and our D1 class is 46.
- What are your normal hours per clinical session? Mondays- D3 and D4s from 8am-12pm, and D2 and D4 from 1-5pm; Tuesdays- D3 and D4s from 8am-12pm; Wednesdays- D3 and D4s from 8am-12pm and 1-5pm; Thursdays- D3 and D4s from 8am-12pm and 1-5pm; Fridays- D3 and D4s from 8am-12pm
- How are your clinical groups set-up? We have four group practices, with four group practice leaders.
- How do your clinical groups function? Each class is divided into fourths, and there becomes a built in referral tree overseen by the GPL. The GPL will aid each student in their group with competency thresholds and competency challenges.
- How long have you had your current structure? 4 months
- Do you plan on changing in the near future? Yes, hopefully minor changes only, but it is a work in progress.

bv Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients?
- iii. If so, what are the main reasons?

UA

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
Patients contact the school and are screened by the team leaders.
 - 1. Provide numbers screened and yield if available
Approximately 2000/year. Approximately 80%.
- ii. Are you having difficulty finding suitable patients?
Yes, mostly for fixed restorative treatments.
- iii. If so, what are the main reasons?
Clinic location, cost and amount of patient time that treatment requires.

ASDOH

• Screening

- How are patients screened for acceptance into your pre-doctoral program?
We have a screening clinic faculty screen patients with students
 - Provide numbers screened and yield if available
16-20 per day
- Are you having difficulty finding suitable patients?
No we do have enough patients but certain procedures like ENDO, FPD & RPDS we are low on patients. We do not have graduate programs which makes it easier for our students to get enough experience.

If so, what are the main reasons?
Different options are available like extraction & Implant

MWU

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
Working with faculty, students obtain basic diagnostics and faculty determines suitability of patient for a teaching clinic. If patient is accepted, faculty assigns the patient to a pair of students in their suite for complete diagnostics and treatment.
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients?

We are ideally positioned for our desired patient pool. Very close proximity to a huge retirement community. One area that is growing slower than desired is our pediatric patient pool.

UBC

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?

By 3rd and 4th year dental students

1. Provide numbers screened and yield if available **Screened: 1545**

Accepted: 981

- ii. Are you having difficulty finding suitable patients? **Yes**

- iii. If so, what are the main reasons?

Difficulty finding complete denture patients and fixed partial denture patients

LLU

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?

Students are assigned to screening blocks; they take a pano and intraoral photos to aid in assignment to students

1. Provide numbers screened and yield if available

- ii. Are you having difficulty finding suitable patients? In general, no. We do have difficulty finding patients with certain procedures such as endo therapy and removable pros suitable for beginning pre-doctoral patients.

UNLV

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?

Prospective patients are screened by our 3rd and 4th year students, supervised by calibrated screening faculty. The decision to accept/not accept is determined by the medical and dental complexity of the case and the ability to adhere to Clinic policies.

1. Provide numbers screened and yield if available

We screen about 4000 patients per year and deny 10-15% for dental complexity and about 15-20% for medical complexity.

- ii. Are you having difficulty finding suitable patients?

For the most part our students are able to find enough suitable patients.

- iii. If so, what are the main reasons?

Our students have sufficient patients, however, we do have a relatively high no show/last minute cancellation rate that can make it more difficult to complete needed requirements.

OHSU

- **Screening**
 - How are patients screened for acceptance into your pre-doctoral program? Patients are screened daily in an admitting appointment that is overseen by 1-2 faculty to 4-5 students. The PDI system is used to assess the complexity of the patient. Medically complex patients are sometimes referred to our GPR program and dentally complex patients are referred to either the Faculty Practice or to outside prosthodontists. It seems that there are still rather challenging and complex patients that are assigned to the pre-doctoral clinic for disease control and definitive treatment.
 - Provide numbers screened and yield if available

We schedule 24 patients per day for screening; typically 30% will not show up. Of the ones who complete screening, 20% will not be retained for the predoctoral clinic.
Per month: 480 scheduled; 336 screened; 268 retained
 - Are you having difficulty finding suitable patients? We are challenged with complex patients that cannot afford private fees and we have a shortage of patients needing removable prosthetics.
 - If so, what are the main reasons? Cost, mostly. The Affordable Care Act seems to have had some effect on the numbers of patients seeking care at our institution, especially in the Pediatric Dental Clinic

UCLA

- **Screening**
 - How are patients screened for acceptance into your pre-doctoral program?
 - Provide numbers screened and yield if available

Patients are screened by the GPDs at the initial Patient Assessment appointment time, and then directed to other clinics accordingly.
 - Are you having difficulty finding suitable patients?

Not sure of this question; what does it mean by “suitable patients”?

ROSE

- c. **Screening**
 - i. How are patients screened for acceptance into your pre-doctoral program? – D2, D3 and D4 student screen under faculty supervision in general clinical areas

Free screening exam/evaluation by a student with faculty supervision – no x-rays, just patient evaluation for suitability as a good teaching case

Appointments are normally 15 minutes. Students are assigned to do screenings for a day on a rotation basis with one “screening chair” per quadrant

1. Provide numbers screened and yield if available

This past year – June 2015 to June 2016 – our clinic screened approximately 1600 patients with a 66% retention rate (patients that were scheduled for a comprehensive exam)

- ii. Are you having difficulty finding suitable patients? No

- iii. If so, what are the main reasons? ??

UOP

Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
- ii. THROUGH THE 8 GROUP PRACTICES WITH GPL SUPERVISION
 1. Provide numbers screened and yield if available
- iii. Are you having difficulty finding suitable patients? YES
- iv. If so, what are the main reasons? SOCIOECONOMIC, RELIABILITY, PERCEIVED NEED

UCSF

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?

Dental screening is done using the Lytle & Skurow diagnostic classification. Class I and II are routinely accepted into our clinical practice.

Medical and psychological screening is less defined. Typically, if a patient is unable to recline for 3 hours due to systemic or mobility issues, has uncontrolled seizures, severe and uncontrolled cardiac conditions, or unmanageable psychiatric conditions, they are may be too complex for our novice clinicians to treat. We are considering moving to the Glick classification for medical stability in the future.

1. Provide numbers screened and yield if available

- ii. Are you having difficulty finding suitable patients?

Yes: Endodontics and periodontics

USC

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program? *Dentists evaluate suitability of patients in screening clinic.*

1. Provide numbers screened and yield if available N/A

- ii. Are you having difficulty finding suitable patients? *We have enough patients of all types to meet our needs; however, we have relative shortages of certain procedures which varies by year.*
- iii. If so, what are the main reasons? *Competition from low-cost for profit clinics and shortage of parking*

WUHS

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program? *Patients are screened for medical, case complexity, compliance expectations prior to being accepted for treatment.*
 - 1. Provide numbers screened and yield if available *2,120 patients were screened in calendar 2015. 1048 completed COEs and were active patients for a yield of 49.4%.*
- ii. Are you having difficulty finding suitable patients? *Yes for dentures, endodontics, and implants.*
- iii. If so, what are the main reasons? *Economic reality of the patient base.*

UW

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
 - The patients who are interested in receiving dental treatments at the dental school are screened at our Dental Admission Clinic.
- ii. Are you having difficulty finding suitable patients?
 - In general, we have sufficient patients who need Complete Dentures, Immediate Complete Dentures, Direct Composite/Amalgam fillings and Tooth Extraction. However, there are difficulties finding enough patients who need Implants, FDPs and Metal-base removable partial dentures.
- iii. If so, what are the main reasons?
 - The majority of the patients of the dental school have Medicaid insurance. The insurance has limited coverage in Implants, FDPs and Metal-base RPDs.

UU

•

Screening

- How are patients screened for acceptance into your pre-doctoral program? We have 4-5 screening sessions during our regular clinical time. Our students each rotate through the screening sessions.
 - Provide numbers screened and yield if available- We average 48 patients screened each week. Our yield is usually acceptance of 24-30

patients a week.

- Are you having difficulty finding suitable patients? No

c. Cariology

av Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control?
2. Do you use Sodium Diamine Fluoride for caries control?

- ii. What evidence do you have to support your use/non-use?

bv Caries Removal

- i. Do you teach total or partial caries removal?

UA

Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

Duraflor

1. Do you use Carbamide Peroxide for caries control? No
2. Do you use Sodium Diamine Fluoride for caries control? No

- ii. What evidence do you have to support your use/non-use? None.

b. Caries Removal

- i. Do you teach total or partial caries removal?

Both. It is acceptable to leave infected dentin if there is a risk of pulp exposure.

ASDOH

Caries Control

- What chemotherapeutics are you using for your moderate and high-risk caries patients?

We are following the standard CAMBRA Protocols.

Moderate Risk: OTC Fluoride Toothpaste bid, Na Fluoride rinse .05% daily, Xylitol gum or mints 2mg bid, sealants where indicated

Severe Risk: bacteria tests q 6 months for 1-2 years as patient allows, F varnish every visit, NaF gel rinse 1.1% bid, Xylitol gum or mints 2mg bid, sealants where indicated, if severe addition of Chlorhexidine rinses for 1 week and pH neutralizers such as NaCo3.

- Do you use Carbamide Peroxide for caries control?

Not at this point. Are there concerns about tooth sensitivity and whitening?

- Do you use Sodium Diamine Fluoride for caries control?

We are introducing the product and concepts in the didactic lectures, but we in the process of introducing it to the faculty and the clinical protocols.

- What evidence do you have to support your use/non-use?

Publication from: UCSF Protocol for Caries Arrest Using Silver Diamine Fluoride: Rationale, Indications, and Consent

- **Caries Removal**

- Do you teach total or partial caries removal?

We teach both based on the clinical situation and health of the pulp. We are using the ICDAS caries classification as a baseline and using principles of minimally invasive dentistry.

Materials and Techniques

Bulk Fill Composite Resin

Do you teach the use of bulk fill composite resin pre-clinically?

Not at the current time. We are going to introduce concepts of the technique so graduates are aware of alternative techniques, however, we still prefer to use sandwich techniques which have clinical advantages over the more convenient bulk fill techniques.

- Do you use bulk fill composite resin clinically?

Not at this time.

- Which material(s) do you use?

If we used one it would most likely be Surefil SDR

- What is your preferred technique for use?

Incremental placement of paste composites. Where needed, the composite is placed over a very thin layer of stress releasing flowable composite. For deep areas near the dentin, glass ionomer sandwich techniques are preferred.

- Do you use bulk fill composite resin clinically?

No

MWU

- i. Cariology

- a. **Caries Control**

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

Fluoride gel and varnish

1. Do you use Carbamide Peroxide for caries control? **No**
2. Do you use Sodium Diamine Fluoride for caries control? **No**
 - i. What evidence do you have to support your use/non-use?

- b. **Caries Removal**

- i. Do you teach total or partial caries removal? **Total.**

UBC

- i. Cariology

- a. **Caries Control**

i. What chemotherapeutics are you using for your moderate and high-risk caries patients? Fluoride rinse 0.2% daily; fluoride varnish; fluoridated tooth paste 5000ppm, but even for the highest risk it's still debatable.

1. Do you use Carbamide Peroxide for caries control? No
2. Do you use Sodium Diamine Fluoride for caries control? No

ii. What evidence do you have to support your use/non-use? _____

b. Caries Removal

i. Do you teach total or partial caries removal? Total removal when caries is limited and not near pulp. Partial removal when tooth is vital and asymptomatic and the risk of pulp exposure is high.

LLU

i. Cariology

a. Caries Control

i. What chemotherapeutics are you using for your moderate and high-risk caries patients? Carifree, MiPaste

1. Do you use Carbamide Peroxide for caries control? No
2. Do you use Sodium Diamine Fluoride for caries control?
We have just implemented protocol for its use in our adult clinic. Our pediatric clinic has been using it for several months.

ii. What evidence do you have to support your use/non-use? CAMBRA

b. Caries Removal

i. Do you teach total or partial caries removal? Total

UNLV

i. Cariology

a. Caries Control

i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control? In Peds.
2. Do you use Sodium Diamine Fluoride for caries control? In Peds.

ii. What evidence do you have to support your use/non-use? School research

b. Caries Removal

i. Do you teach total or partial caries removal?

Both methods are taught. The decision to leave or remove caries is decided by the covering faculty in the clinic. We plan to develop a consistent policy within the next year.

OHSU

- Cariology

- **Caries Control**

- What chemotherapeutics are you using for your moderate and high-risk caries patients? Mostly Fluoride in dentifrice and varnish. We recommend Chlorhexidine and Xylitol. We are using Silver Diamine Fluoride in the Pediatric Dental Clinic, and have worked out a protocol. We will begin to introduce silver diamine fluoride into the predoctoral student clinic this Fall for select cases

- Do you use Carbamide Peroxide for caries control? No
- Do you use Sodium Diamine Fluoride for caries control? Yes

- What evidence do you have to support your use/non-use?

Fluoride: Evidence is from 2003-2010 Cochrane Reviews (Systematic Reviews)
Marinho et al. Fluoride toothpastes for preventing dental caries in children and adolescents. Cochrane Reviews 2003, Issue

Baysan et al, 2001. Reversal of primary root caries using dentifrices containing 5,000 and 1,100 ppm fluoride. Caries Res; 35 (1): 41-46.

Walsh T, et al. The relative caries preventive effects of fluoride toothpastes of different concentrations increase with higher fluoride concentration. Cochrane Database Syst Rev. 2010 Jan 20;(1):CD007868

Marinho VC. Fluoride mouthrinses for preventing dental caries in children and adolescents. Cochrane Database Syst Rev. 2009;(1):CD002781.

Xylitol:

Kiet et al, 2008. The Potential of Dental-Protective Chewing Gum in Oral Health Interventions. JADA; 139: 553-563

Ritter AV et al. Tooth-surface-specific effects of xylitol: randomized trial results. J Dent Res. 2013 Jun;92(6):512-7.

Ribeiro et al. 2007. The effect of different formulations of chlorhexidine in reducing levels of mutans streptococci in oral cavity: a systematic review of the literature. J of Dentistry; 35:359-370. References: 27, 29.

Wyatt et al, 2007. Chlorhexidine and preservation of sound tooth structure in older adults. Caries Res; 41:93-101.

Silver Diamine Fluoride—

Peng JJ. Silver compounds used in dentistry for caries management: a review. *Dent.* 2012;40(7):531-41.

- **Caries Removal**

- Do you teach total or partial caries removal? We teach total caries removal. Affected dentin is only left when close to pulp.

UCLA

- **Cariology**

- **Caries Control**

- What chemotherapeutics are you using for your moderate and high-risk caries patients?

Fluoride varnish, preident, MI paste

- Do you use Carbamide Peroxide for caries control?

No

- Do you use Sodium Diamine Fluoride for caries control?

no

- What evidence do you have to support your use/non-use?

- **Caries Removal**

- Do you teach total or partial caries removal?

Partial caries removal (Ricketts D, Kidd E, Innes NP T, Clarkson JE. Cochrane Summary, 2006; Mertz-Fairhurst E et al., JADA, 1998; Thompson V et al., JADA, 2008; Maltz M et al., JDR, 2012).

ROSE

- i. **Cariology**

- a. **Caries Control**

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? Preident 5000

Fluoride Varnish, Rx Fluoride tooth paste, MI paste, Chlorhexidine, HHI

1. Do you use Carbamide Peroxide for caries control? - No

2. Do you use Sodium Diamine Fluoride for caries control? No, not currently but we are studying the possibility of implementation

- ii. What evidence do you have to support your use/non-use?

- b. **Caries Removal**

- i. Do you teach total or partial caries removal? – Mostly total caries removal
Removal of infected dentin, leaving affected dentin – determined using tactile sensation and/or caries detector

UOP

Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?
 1. Do you use Carbamide Peroxide for caries control? NO
 2. Do you use Sodium Diamine Fluoride for caries control? NO
- ii. What evidence do you have to support your use/non-use? A PRACTICAL ISSUE NOT AN EVIDENCE ISSUE

b. Caries Removal

- i. Do you teach total or partial caries removal?

UCSF

i. Cariology

a. Caries Control

What chemotherapeutics are you using for your moderate and high-risk caries patients? ClinPro 5000 ppm Fluoride dentifrice, fluoride varnish, 0.12% chlorhexidine gluconate oral solution, and baking soda rinses (mainly for extreme caries risk)

1. Do you use Carbamide Peroxide for caries control?
no

2. Do you use Sodium Diamine Fluoride for caries control?
yes

- ii. What evidence do you have to support your use/non-use?

Literature and guidelines for SDF protocol in our student clinics can be found here:

<https://ucsf.box.com/s/jc7cxwsil86w5hp43qbgoo8xel7pje0p>

b. Caries Removal

- i. Do you teach total or partial caries removal?

Both techniques are taught. Partial removal specifically in situations with normal pulpal response, normal radiographic appearance. Case and Faculty specific.

USC

i. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? *For high risk we use 5000 PPM fluoride and CHX. OTC products for moderate risk*

1. Do you use Carbamide Peroxide for caries control? *No*
2. Do you use Sodium Diamine Fluoride for caries control? *No*

- ii. What evidence do you have to support your use/non-use? *Scientific literature.*

b. **Caries Removal**

- i. Do you teach total or partial caries removal? *Both*

WUHS

i. **Cariology**

a. **Caries Control**

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control? *No.*

2. Do you use Sodium Diamine Fluoride for caries control? *Pediatrically, yes. Adults only as a last resort type mechanism.*

- ii. What evidence do you have to support your use/non-use? *Brian Novi's and Steve Duffin's research.*

a. **Caries Removal**

- iii. Do you teach total or partial caries removal? *We teach partial pre-clinically, but clinically they are practicing total removal.*

UW

i. **Cariology**

a. **Caries Control**

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control?

No

2. Do you use Sodium Diamine Fluoride for caries control?

Seldom, only for the patients who have rampant caries

- ii. What evidence do you have to support your use/non-use?

b. **Caries Removal**

- iv. Do you teach total or partial caries removal?

Total caries removal

UU

Cariology

• **Caries Control**

- What chemotherapeutics are you using for your moderate and high-risk caries patients? *Fluoride (mainly Sodium fluoride) varnish and dentifrice.*

- Do you use Carbamide Peroxide for caries control? *No*

- Do you use Sodium Diamine Fluoride for caries control? *No, but we are now introducing the concept of silver diamine fluoride.*

- What evidence do you have to support your use/non-use? *We are following the emerging evidence.*

• **Caries Removal**

Do you teach total or partial caries removal? We teach total caries removal and also indirect pulp-capping

d. Materials and Techniques

av Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
- ii. Do you use bulk fill composite resin clinically?
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?

UA

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?

Yes, SureFill.

- ii. Do you use bulk fill composite resin clinically?

No

- iii. Which material(s) do you use?

3M, Filtek.

- iv. What is your preferred technique for use?

Incremental resin placement. First increment 1-2 mm of flowable then restorative composite increments.

- v. What evidence do you have to support your use/non-use?

Long time accepted standard which is recommended in most textbooks.

ASDOH

Materials and Techniques

Bulk Fill Composite Resin

Do you teach the use of bulk fill composite resin pre-clinically?

Not at the current time. We are going to introduce concepts of the technique so graduates are aware of alternative techniques, however, we still prefer to use sandwich techniques which have clinical advantages over the more convenient bulk fill techniques.

- Do you use bulk fill composite resin clinically?

Not at this time.

- Which material(s) do you use?

If we used one it would most likely be Surefil SDR

- What is your preferred technique for use?

Incremental placement of paste composites. Where needed, the composite is placed over a very thin layer of stress releasing flowable composite. For deep areas near the dentin, glass ionomer sandwich techniques are preferred.

- Do you use bulk fill composite resin clinically?

No

MWU

Materials and Techniques

Bulk Fill Composite Resin

- Do you teach the use of bulk fill composite resin pre-clinically? **Not at this time, we are doing research on it.**
- Do you use bulk fill composite resin clinically?
Yes, Multicore Flow, Dual cure.
- Which material(s) do you use? **NA**
- What is your preferred technique for use? **NA**
- What evidence do you have to support your use/non-use? **NA**

UBC

Materials and Techniques

a. **Bulk Fill Composite Resin**

- Do you teach the use of bulk fill composite resin pre-clinically? No
- Do you use bulk fill composite resin clinically? No
- Which material(s) do you use? N/A
- What is your preferred technique for use? N/A
- What evidence do you have to support your use/non-use? We have not introduced bulk fill composites as an alternative for conventional posterior composites. Bulk fill resin composites still lack mechanical properties when compared to conventional resin composites.

LLU

Materials and Techniques

a. **Bulk Fill Composite Resin**

- Do you teach the use of bulk fill composite resin pre-clinically? No
- Do you use bulk fill composite resin clinically? No
- Which material(s) do you use?
- What is your preferred technique for use?
- What evidence do you have to support your use/non-use?

UNLV

Materials and Techniques

- a. **Bulk Fill Composite Resin**
 - i. Do you teach the use of bulk fill composite resin pre-clinically?

Bulk fill composites are taught didactically.
 - ii. Do you use bulk fill composite resin clinically?

No.
 - iii. Which material(s) do you use?

None.
 - iv. What is your preferred technique for use? N/A
 - v. What evidence do you have to support your use/non-use? EBD

OHSU

Materials and Techniques

- **Bulk Fill Composite Resin**
 - Do you teach the use of bulk fill composite resin pre-clinically? We teach composite placement in increments. We teach the students about bulk filling in didactic courses such as Dental Materials.
 - Do you use bulk fill composite resin clinically? No
 - Which material(s) do you use?
 - What is your preferred technique for use?
 - What evidence do you have to support your use/non-use?

UCLA

Materials and Techniques

- **Bulk Fill Composite Resin**
 - Do you teach the use of bulk fill composite resin pre-clinically? No
 - Do you use bulk fill composite resin clinically? No

ROSE

Materials and Techniques

- a. **Bulk Fill Composite Resin**
 - i. Do you teach the use of bulk fill composite resin pre-clinically?

Beginning this year
 - ii. Do you use bulk fill composite resin clinically?

Not at present

- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?
Peer-reviewed journal/studies/reports, personal experience

UOP

Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
- ii. Do you use bulk fill composite resin clinically? MAINLY FOR BUILD-UPS
- iii. Which material(s) do you use? PREMISE, ROCKCORE, PHOTOCORE
- iv. What is your preferred technique for use? LAYERED (PREMISE/PHOTOCORE), BULK (ROCKCORE)
- v. What evidence do you have to support your use/non-use?

UCSF

Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
No
- ii. Do you use bulk fill composite resin clinically?
No
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use? No really good clinical studies or meta analysis on clinical use available at this time

USC

Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? *No.*
- ii. Do you use bulk fill composite resin clinically? *No.*
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?

WUHS

Materials and Techniques

- a. **Bulk Fill Composite Resin**
 - i. Do you teach the use of bulk fill composite resin pre-clinically? *No.*
 - ii. Do you use bulk fill composite resin clinically? *No.*
 - iii. Which material(s) do you use? *N/A*
 - iv. What is your preferred technique for use? *N/A*
 - v. What evidence do you have to support your use/non-use? Not evidence based decision,
no faculty currently interested in this modality.

UW

Materials and Techniques

- a. **Bulk Fill Composite Resin**
 - i. Do you teach the use of bulk fill composite resin pre-clinically?

No
 - ii. Do you use bulk fill composite resin clinically?

No
 - iii. Which material(s) do you use?

N/P
 - iv. What is your preferred technique for use?

N/P
 - v. What evidence do you have to support your use/non-use?

UU

Materials and Techniques

- **Bulk Fill Composite Resin**
 - Do you teach the use of bulk fill composite resin pre-clinically? No
 - Do you use bulk fill composite resin clinically? No
 - What evidence do you have to support your use/non-use? Our confers are complete polymerization of the materials, and also the polymerization shrinkage stresses that occur.

e. Student Assessment

- a. **Clinical Grades**
 - i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
 - ii. Are students evaluated (graded) on their daily clinical procedures?
 - 1. If so, what metrics or methods are used?

- iii. Provide Rubrics if available.

UA

d. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Rubrics for all graded projects.

- ii. Are students evaluated (graded) on their daily clinical procedures? Yes

1. If so, what metrics or methods are used?

Each department have specific rubrics used to grade procedures in their area.

Provide Rubrics if available.

ASDOH

- Student Assessment

- Clinical Grades

- What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

For the pre-clinic module we have a letter grade associate with each module. For the clinic there is no grade it is Pass / Fail.

- Are students evaluated (graded) on their daily clinical procedures?

Yes,

- are used?

For the daily projects In the clinic we use:

CA= clinically acceptable (minimal variance for standards)

MCA= marginal clinically acceptable (moderate variance for standards)

CU + clinically unacceptable (critical error)

MWU

Student Assessment

a. Clinical Grades

- ii. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Daily procedure and practical grades in D1 and D2 years, bi-quarterly self and faculty assessment of students in their clinical years (D3 and D4), and clinical competencies.

- iv. Are students evaluated (graded) on their daily clinical procedures? Yes

1. If so, what metrics or methods are used?

They are graded on a scale of 1-5 by the clinical faculty overseeing the procedures.

Provide Rubrics if available

UBC

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? In pre-clinical teaching there are prescribed operative procedures that

students need to complete to an acceptable satisfactory level, some of these are also graded. Additionally there are clinical quizzes. All assessments are based on procedure-specific critical requirements. In addition instructors write periodic evaluations based on a rubric to include professionalism, knowledge, clinical skills and organization. Clinical (patient care) operative experiences are evaluated inside our ICC Module. Domains of assessment are: professionalism knowledge, clinical skills, organization and time management, degree of difficulty and degree of independence. Students are required to self-evaluate prior to the instructor and they receive feedback on this too. In both cases we encourage instructors to write meaningful comment for the student.

- ii. Are students evaluated (graded) on their daily clinical procedures? yes

1. If so, what metrics or methods are used? The following assessment rubric is used: DENT 430 Operative Dentistry – Student Clinical Simulation Assessment Form. In addition to specific comments instructors also assign one of four available grades: 90% for exceeds expectations, 75% for meets expectations, 60% for borderline and 50% for does not meet expectations. In the clinic instructors are evaluating students per session using an online rubric and a grade is calculated automatically based on a formula.

Provide Rubrics if available. DENT 430 OPER Student assessment form, ICC rubric

LLU

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? Rubrics are used in the pre-clinical labs and for clinical assessment of restorative procedures. The rubrics employ compensatory scoring unless the student makes a critical error that results in harm to the tooth or patient.

- ii. Are students evaluated (graded) on their daily clinical procedures? Yes

1. If so, what metrics or methods are used? Students are evaluated on three criteria for each patient procedure, each of which is assessed on a scale of 1-5. In addition, each assessment is identified by the type of procedure (e.g., patient assessment, fixed, removable, operative, etc). The criteria are:

- a. Preparation for the procedure
 - b. Execution of the procedure
 - c. Time management
- iii. Provide Rubrics if available.

UNLV

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

In the pre-clinic, students are evaluated by use of practical exams. Each practical has a corresponding grade sheet listing the grading criteria. Each practical is graded by at least 2 pre-clinical faculty.

See below for clinic evaluations.

- ii. Are students evaluated (graded) on their daily clinical procedures?

1. If so, what metrics or methods are used?

Grades are pass/fail on a daily basis. Positive or negative comments can be put on the Axiom grade card, but it is not mandatory to do so unless unsatisfactory. Students receive a pass/fail on required competencies. At the end of each semester, students receive a grade. 40% of the grade is points based and 60% is a professionalism grade determined by the team faculty and staff based on published criteria. Points are earned by completing procedures and thresholds are established to determine the grade received in this category. The professionalism grade is based on how well procedures are performed and the demeanor of the student in the clinic. Attendance failure can lower grade.

- iii. Provide Rubrics if available.

OHSU

- **Student Assessment**
 - **Clinical Grades**
 - What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Pre Clinical curriculum is Pass/NP with 70% as cutoff. Grading is non-compensatory. Methods include: exams, homework assignments, laboratory projects, practical exams, attendance, quizzes, professional skills and judgement
Clinical courses are graded with Pass/NP with the same criteria.
Method: Daily treatment assessment, critical skills assessments, portfolios, professional skills and judgement, etc.
 - Are students evaluated (graded) on their daily clinical procedures? Yes
 - If so, what metrics or methods are used? Students are graded on the following with grades A (appropriate) or I (needs improvement)
 - Patient Management : communication, consent, infection control, pain control, professionalism/ethics, time management
 - Faculty Interaction: communication/critical thinking, self-assessment, start check ;conveyance of patient health status, CC, procedure, plan for session, PARQ, anesthetic choice
 - Technical skill on procedure performed

UCLA

- **Student Assessment**
 - **Clinical Grades**
 - What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Metrics, methods and cut offs.

For preclinical: quizzes, daily lab projects, and finals (both didactic and practical).

For clinical: RVU's, Competencies

- Are students evaluated (graded) on their daily clinical procedures? No

ROSE

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Rubrics

All grades are "Pass"/"No-Pass"

Cut-off is clinically acceptable. Anything not clinically acceptable is a "no-pass"

- ii. Are students evaluated (graded) on their daily clinical procedures?

1. If so, what metrics or methods are used?

Yes

Rubrics

UOP

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? PRECLIN PRACTICALS, CLINICAL: TEST CASES: FORMATIVE, SUMMATIVE, PORTFOLIO
- ii. Are students evaluated (graded) on their daily clinical procedures? NO
1. If so, what metrics or methods are used?
- iii. Provide Rubrics if available. N/A

UCSF

Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Clinical coursework is assessed with a combination of quantitative metrics ("requirements"), competency exams, and qualitative assessment from the clinical coach once per quarter. Core curriculum competency exams are single-grader. Students electing the Portfolio Exam pathway to licensure take certain fourth-year competency exams with two calibrated examiners. We use the California Dental Board scoring system, which is scaled, and provides cutoff scores. Students who perform a critical error have a "no pass."

- ii. Are students evaluated (graded) on their daily clinical procedures?

Comments can be entered by faculty at the end of each clinic visit. No grade assigned at that time, just feedback.

1. If so, what metrics or methods are used?

iii. Provide Rubrics if available.

Rubrics are available only for clinical competency exams.

USC

Student Assessment

a. Clinical Grades

i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? *Specific procedural criteria are set to be followed by students and faculty. Evaluations are done based on these set criteria developed by faculty.*

ii. Are students evaluated (graded) on their daily clinical procedures? *Yes.*

1. If so, what metrics or methods are used? *Digitally through Axiom*

iii. Provide Rubrics if available. *N/A*

WUHS

Student Assessment

a. Clinical Grades

i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? *Pre-clinically 90/80/70 cutoffs, no rounding/Formative Feedback. Clinical Rubrics and Formative Feedback. WesternU has developed a new app/dashboard for collection and metrics analysis of data. I can demonstrate if anyone is interested.*

ii. Are students evaluated (graded) on their daily clinical procedures?

1. If so, what metrics or methods are used? *Yes, Preparation, Process, Procedure, and Professionalism.*

iii. Provide Rubrics if available.

UW

i. What evidence do you have to support your use/non-use?

Student Assessment

a. Clinical Grades

i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

For the preclinical courses, there are two competencies exams – midterm and final competencies exams.

For the clinical courses, each discipline has a competency exam, such as composite/amalgam restorations, fixed and removable prostheses.

ii. Are students evaluated (graded) on their daily clinical procedures?

1. If so, what metrics or methods are used?

Yes, the students' daily clinical procedures are graded using Axiom system.

iii. Provide Rubrics if available.

N/P

UU

Student Assessment

• Clinical Grades

- What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
- Are students evaluated (graded) on their daily clinical procedures? Yes, daily formative feedback forms.
 - If so, what metrics or methods are used? Rubrics with criteria are used pre-clinically, and match the clinical formative feedback sheets.

Provide Rubrics if available

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

UA

Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?

Executive team

2. Who sits on this Council, Committee, Board?

Department chair and all the associate chairs.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Dean of Faculty of Medicine and Dentistry, department chair, six associate chairs and eight program heads.

Provide school organizational tree if available

ASDOH

- **Administration**
 - **Organizational Structure**
 - What is the name of the major decision making body within your school?
 - Who sits on this Council, Committee, Board?

Dean's 20/20 council. The committee is chaired by the vice dean. This council includes, Associate deans, specialty representative and Director of ASDOH Business.
 - How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Dean, Vice Dean, seven Associate Deans, One program director (ortho program) and multiple specialty directors and CCU directors.
 - Provide school organizational tree if available. NA

MWU

- Administration**
 - a. **Organizational Structure**
 - i. What is the name of the major decision making body within your school? **The Administrative Team**
 - 1. Who sits on this Council, Committee, Board?

The Dean, Pre-clinical Associate Dean, Clinical Associate Dean, Academic Associate Dean.
 - ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Five Deans, along with two Directors of Pre-clinical Faculty and Two Directors of Clinical Faculty
 - iii. Provide school organizational tree if available.

UBC

- Administration**
 - a. **Organizational Structure**
 - i. What is the name of the major decision making body within your school? **Faculty Council (Academic), and ABP (Appointment, Budgets and Planning) Committee (administrative).**
 - 1. Who sits on this Council, Committee, Board? **Faculty Council – all F/T tenure and tenure-track faculty.**

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? **One Dean, 2 Dept. Heads, 4 Associate Deans, 11 division chairs**
- iii. Provide school organizational tree if available. **Attached**

LLU

Administration

Organizational Structure

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?

Executive Committee - All deans, department chairs/division head, faculty council
 chair and chair-elect
 Administrative Council – All Deans
 Faculty Council – All faculty members

These groups are only advisory to the dean. The dean makes all final decisions.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? 7 assistant/associate deans in addition to the dean
- iii. Provide school organizational tree if available. Attached to email

UNLV

Administration

Organizational Structure

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?

The Dean is the chief administrative, academic and fiscal officer of the School. The Dean recommends the appointment of executive officers to the Board of Trustees to make up an Executive Council. Faculty has an Assembly, and serves on many committees, most through the election process.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Deans: Associate Dean for Academic Affairs, Assistant Dean for Admissions and Student Affairs, Associate Dean for Advanced Education, Assistant Dean for Assessment, Associate Dean for Clinical Services, Assistant Dean of Finance and Administration, Assistant Dean for Outreach and Engagement, Associate Dean for Research.

Department Chairs: Biomedical Sciences, Clinical Sciences.

Program Directors: Advanced Education Program Pediatric Dentistry, Advanced Education Program in Orthodontics, Advanced Education Program General Practice Residency.

Undergraduate Directors: Digital Dentistry, Screening, Special Needs, Oral Surgery

- iii. Provide school organizational tree if available.

OHSU

- **Administration**
 - **Organizational Structure**
 - What is the name of the major decision making body within your school? Decisions are deliberated by committees and/or department chairs and are approved by the Curriculum Committee
 - Who sits on this Council, Committee, Board? Associate Deans for Curriculum, Patient Services and Clinical Administration as well as Department Chairs, Directors, Course Directors and appointed students
 - How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
 - 1 Dean
 - 1 Senior Assoc Dean for Academic Affairs/Curriculum;
 - 2 Associate Deans for Clinical Administration and Patient Services;
 - 1 Associate Dean each for the following: Informatics (currently vacant position); Hospital Service; Student Affairs and Admissions; Finance and Administration;
 - 1 Dean for Research, Hospital Service
 - 20 Directors for various positions
 - 9 Chairs—1 each for Community Dentistry, Integrative Biosciences; Restorative Dentistry, Endodontology, Periodontology, Oral Maxillofacial Surgery, Pediatric Dentistry, Orthodontics, Oral Pathology
 - 1 Program Director for Pre clinical Curriculum and 2 Associate Directors for Clinical Restorative Dentistry; 10 Program Directors—1 each for Preclinical and Clinical Endo, Perio, OMS, Pedo and Ortho
 - Provide school organizational tree if available attached

UCLA

- **Administration**
 - **Organizational Structure**
 - What is the name of the major decision making body within your school?
 - Dean suites

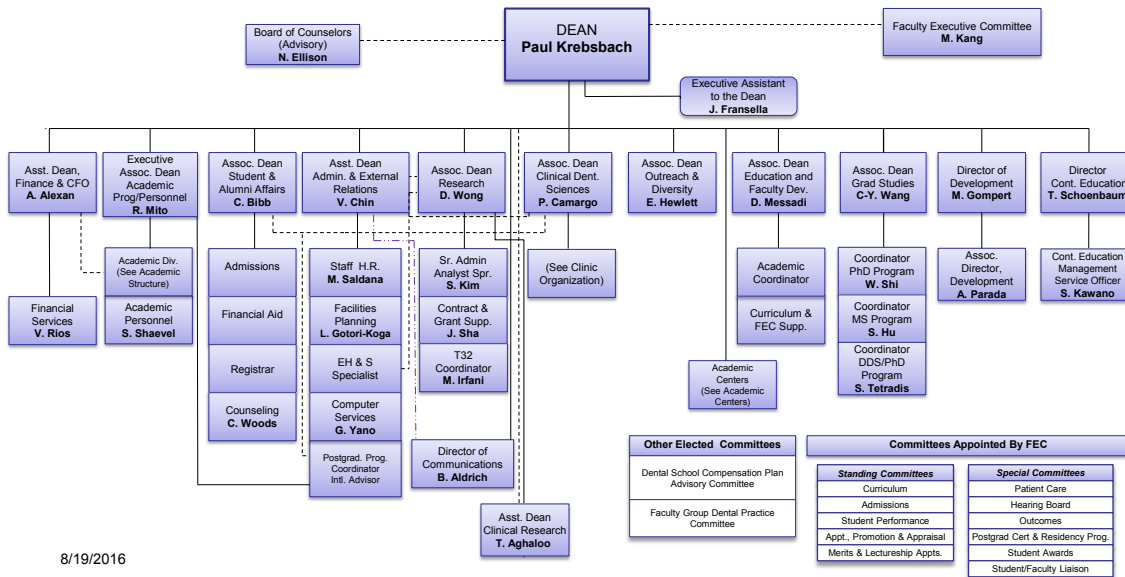
- Who sits on this Council, Committee, Board?

Donors, senior faculty members, administratives

- How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? Please see below.
- Provide school organizational tree if available.

UCLA School of Dentistry

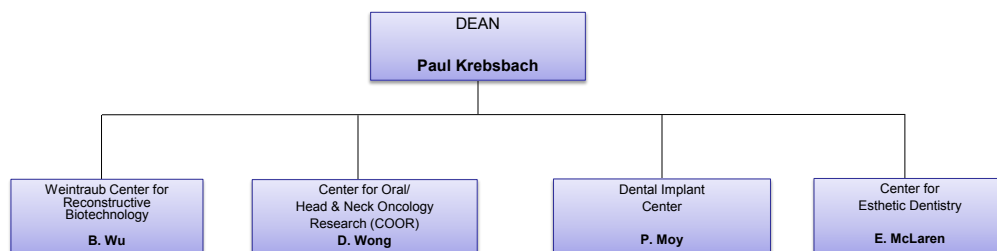
Organizational Chart of Administration



8/19/2016

UCLA School of Dentistry

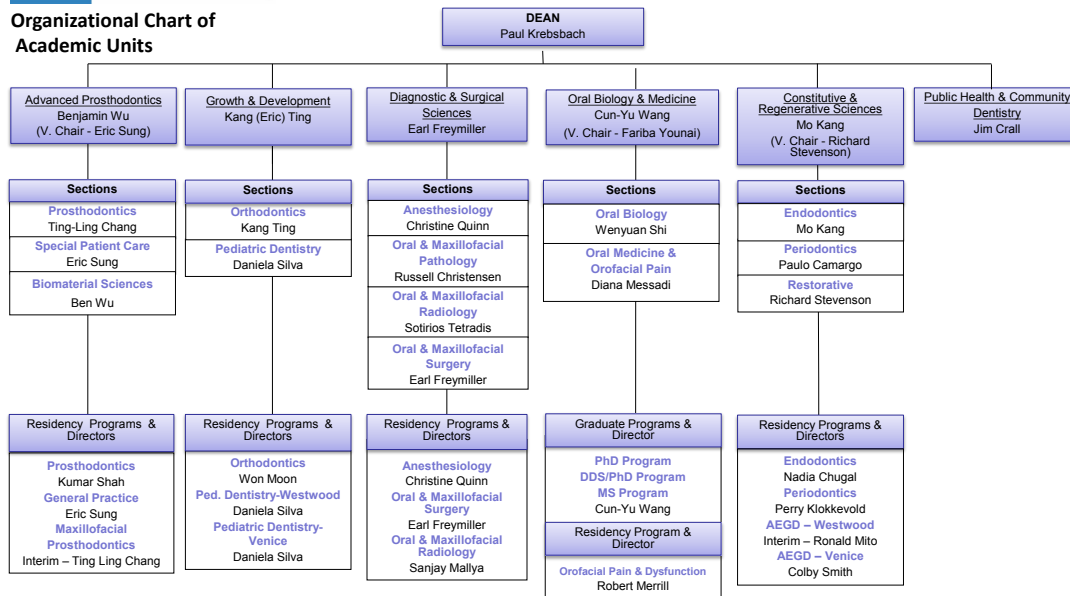
Organizational Chart of Academic Centers



7/6/2016

UCLA School of Dentistry

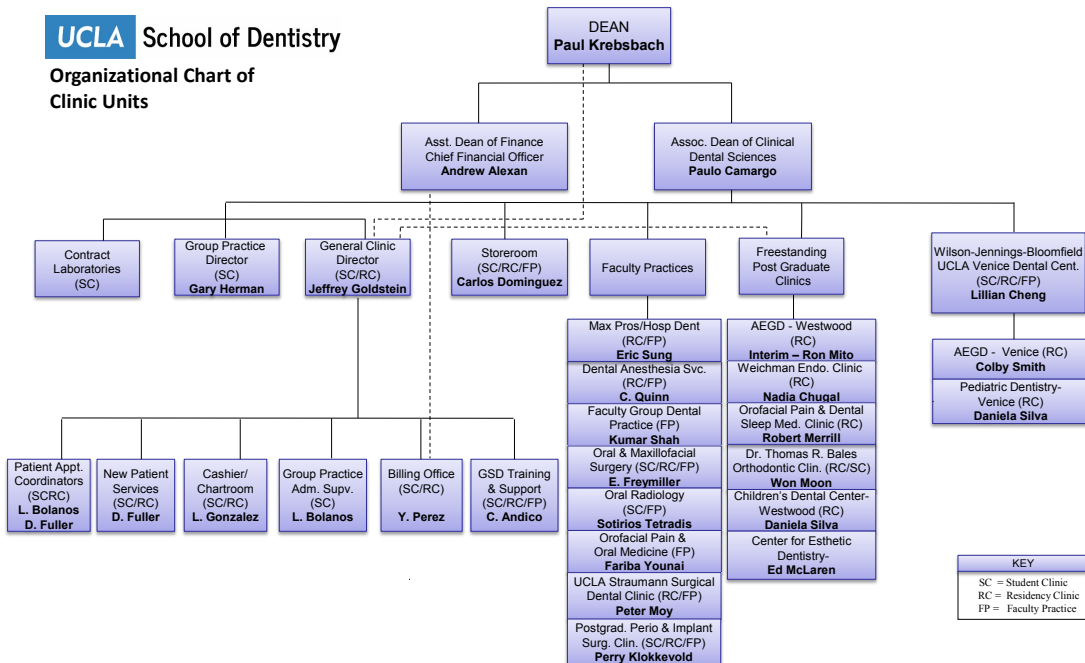
Organizational Chart of Academic Units



7/6/2016

UCLA School of Dentistry

Organizational Chart of Clinic Units



7/8/2016

ROSE

Administration

a. Organizational Structure

i. What is the name of the major decision making body within your school?

1. Who sits on this Council, Committee, Board?

Deans and Directors

We also have many different committees whose responsibilities are to make recommendations to the deans

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? 11 total – 6 deans

v. Provide school organizational tree if available.

UOP

Administration

a. **Organizational Structure**

i. What is the name of the major decision making body within your school?

1. Who sits on this Council, Committee, Board? THE DEAN, DEAN'S COUNCIL

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? 8 DEANS, 8 SECTION HEADS

iii. Provide school organizational tree if available. N/A

UCSF

Administration

a. **Organizational Structure**

i. What is the name of the major decision making body within your school?

It depends on the decision that is being made. Examples are:

- Faculty Council
- Deans & Chairs Committee
- Student Status Committee
- Some decisions are made by individual

1. Who sits on this Council, Committee, Board?

Faculty Council: Elected senate and non-dentate series faculty. The Dean is an Ex Officio member.

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Associate Deans: Clinical Affairs, Academic Affairs, Education and Student Affairs, Hospital Affairs, Research, Finance, Diversity and Inclusion

Assistant Dean: Admissions and Outreach

Department Heads- 4, Division Heads- 12

iii. Provide school organizational tree if available?

Not available

USC

Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school? Dean
 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? Dean, Associate Deans, Division Chairs, Section Chairs.
- iii. Provide school organizational tree if available. N/A

WUHS

Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 1. Who sits on this Council, Committee, Board? *Leadership Team: Deans and Faculty Representative.*
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? *Deans (1 Dean, 5 Associate Deans, and 3 Assistant Deans).*
- iii. Provide school organizational tree if available

UU

• Administration

• Organizational Structure

- What is the name of the major decision making body within your school? School of Dentistry Executive Council
 - Who sits on this Council, Committee, Board? School of Dentistry Executive Council? Dean, associate dean, assistant deans, section heads, development chair, GPR director, student representatives, administrative assistant.
 - How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? Dean, one associate dean, two assistant deans, 9 section heads
- Provide school organizational tree if available. This is a work in progress

UW

Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 - i. Who sits on this Council, Committee, Board?

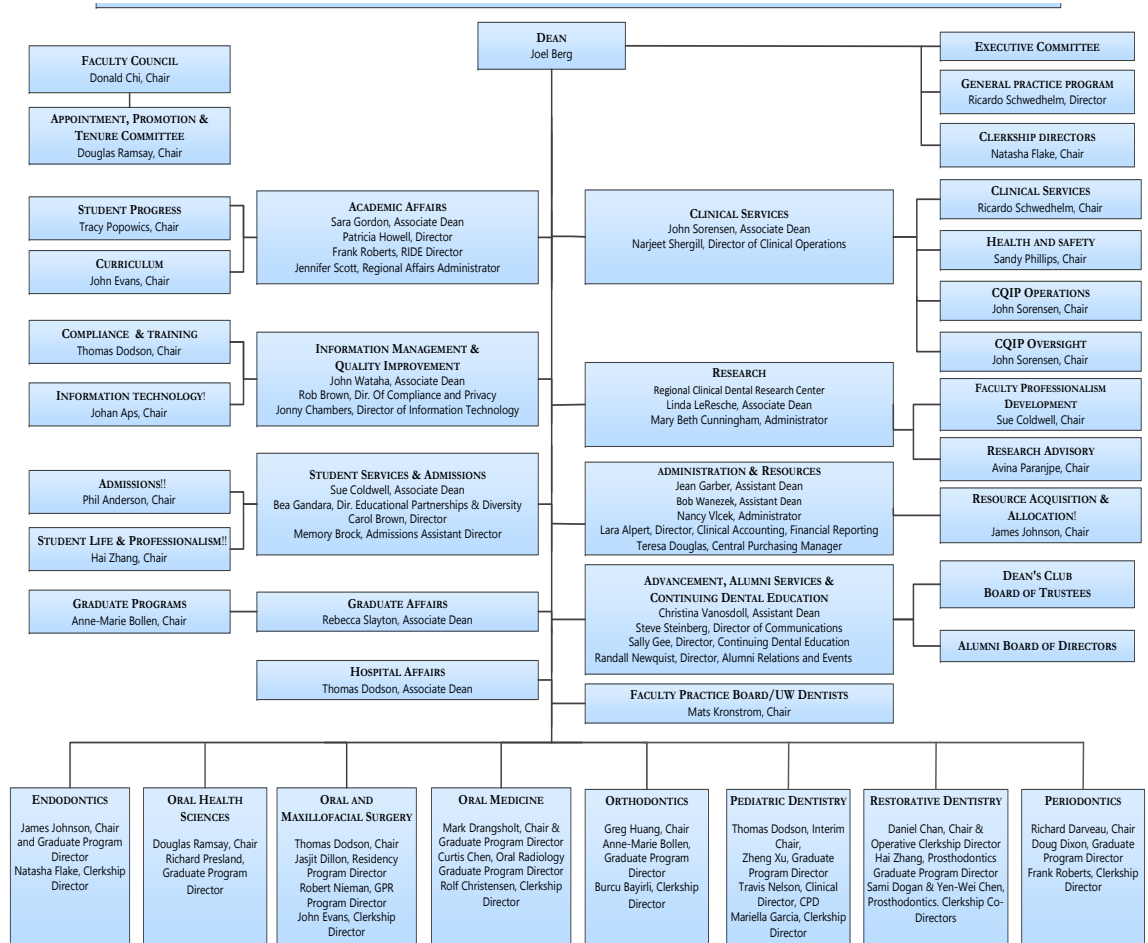
Committee

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

7 Associate Deans, 3 Assistant Deans, 8 Department Chairs

iii. Provide school organizational tree if available

Please see the attached:



f. Ethics and Professionalism

a. Social Media

i. Have you had any student conduct issues related to the improper use of Social Media?

1. ex...the use of patient photos on Facebook

2. If so, provide examples.

ii. How do you inform the students of their professional responsibilities?

iii. What specific rules/guidelines do you have in place?

UA

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

No

1. ex...the use of patient photos on Facebook
2. If so, provide examples.

- ii. How do you inform the students of their professional responsibilities?

They are all given a code of conduct lecture at the beginning of each year.

- iii. What specific rules/guidelines do you have in place?

The university, faculty and the department of dentistry all have long detailed codes of conduct for students and staff. These are very detailed.

ASDOH

- Ethics and Professionalism

- Social Media

- Have you had any student conduct issues related to the improper use of Social Media?

- ex...the use of patient photos on Facebook
- If so, provide examples.
- Not that I am aware of

- How do you inform the students of their professional responsibilities?

Our curriculum includes a professionalism module which has a letter grade just like any other module. We have issued several policies which include all the professional responsibilities. All these policies are available to the student's body in writing and addressed to the student in a class setting.

- What specific rules/guidelines do you have in place?

We have developed attendance policy, dress code policy, and exam policy

MWU

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media? No

1. ex...the use of patient photos on Facebook
2. If so, provide examples.

- ii. How do you inform the students of their professional responsibilities?

In the D2 Year (Fall Qtr) we do a small group discussion session with all the D2 students called "Social Media and Professionalism"

Prior to the discussion session we have the students read a case scenario involving 3rd year dental students who are talking about what they think constitutes professional and unprofessional posts (they have seen) by dental students on Facebook and the case scenario also involves a clinical scenario where a dental clinic patient asks their dental student doctor to be a Facebook friend, so that will facilitate appointments and the dental student, who understands that isn't professional, politely declines.

What specific rules/guidelines do you have in place?

Students must adhere to a code of professional conduct regarding social media. Faculty may not friend students on facebook.

UBC

Ethics and Professionalism

a. Social Media

i. Have you had any student conduct issues related to the improper use of Social Media? **Yes**

1. ex...the use of patient photos on Facebook

2. If so, provide examples. **University/Faculty logo in photos; photos, comments that could be misinterpreted or misleading.**

ii. How do you inform the students of their professional responsibilities? **Orientation presentations; Course learning objectives addressed in lectures, role play scenarios, videos; assessment on professionalism in all courses/modules using the Professional Standards and Code of Ethics documents as the assessment criteria, Expert Speaker in Social Media.**

iii. What specific rules/guidelines do you have in place? **Professional standards Document and Code of Ethics Document, Policies and Procedures on Professionalism Assessment.**

LLU

Ethics and Professionalism

a. Social Media

i. Have you had any student conduct issues related to the improper use of Social Media?

Unknown

3. ex...the use of patient photos on Facebook

4. If so, provide examples.

ii. How do you inform the students of their professional responsibilities? **D1 students are informed at their initial orientation to dental school. As D2 students when they go through clinic orientation prior to being allowed to begin patient treatment.**

iii. What specific rules/guidelines do you have in place? **The university has a policy.**

UNLV

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

No

1. ex...the use of patient photos on Facebook
2. If so, provide examples.

- ii. How do you inform the students of their professional responsibilities?

Students are given a Student Handbook and Clinic Manual that they are expected to adhere to. Students are informed that they must comply with the standards defined in HIPAA and are given annual HIPAA training. They receive a course in this area, and these expectations are reviewed at 3 Clinic Orientations a year, Team meetings and Courses throughout their dental school years as needed.

- iii. What specific rules/guidelines do you have in place?

Materials are electronically posted and students are constantly reminded. Breaches are reported to main campus for patient follow-up. Student receives retraining when appropriate. Policy manual is uploaded for review throughout the school. Patient information is not to be emailed outside the axiUm system, and de-identification of records is continuously emphasized. Encrypted drives are given to each student for appropriate use. Access to axiUm is not allowed off campus, supporting a closed system. VPN is only allowed for faculty.

OHSU

Ethics and Professionalism

• Social Media

- Have you had any student conduct issues related to the improper use of Social Media?

Ex..the use of patient photos on Facebook We have not had any social media conduct issues to date.

- If so, provide examples.

- How do you inform the students of their professional responsibilities?

Professional responsibilities are presented to the students via:

- Student Handbook
- University Policies
 - Confidentiality of Health Information
 - Acceptable Use of Computing and Telecommunications Resources
 - Guidelines for Handling Confidential Information by Remote Access
- SOD & University Orientations
- Professionalism Conference
- Inter-professional Education (University IPE courses)
- Code of Conduct session

- Ethical Decision Making Models & Ethics in Dentistry courses

UCLA

Ethics and Professionalism

- **Social Media**

- Have you had any student conduct issues related to the improper use of Social Media?
Not known.
- How do you inform the students of their professional responsibilities?
We have professional track courses where students learn to be professional.
- What specific rules/guidelines do you have in place? None

ROSE

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

– Yes – do not know the details – upper level dealing with issues

I believe there was an incident. I am not aware of the details but it prompted a letter from one of our deans which stated that “concerns have been brought to the administration regarding possible unethical and unprofessional postings on social media by our students.” He also stated in the letter that “In the future, we will be working with students to develop guidelines for the proper ethical and professional use of social media sites.” He then proceeded to outline guidelines that are to be followed in the meantime.

1. ex...the use of patient photos on Facebook

2. If so, provide examples.

Patient photos on Facebook and Instagram; references to patients on social media; student doctors listing degrees that they have not yet received

- ii. How do you inform the students of their professional responsibilities?
– Courses ethics, Honor Code, Lifelong Colleague, ethical discussions in all courses, Student Ethics Organization, White Coat Ceremony, frequent reminders sent out regarding issues of using social media.
- iii. What specific rules/guidelines do you have in place? –

Honor Code: The DMD program has adopted an honor code that applies to all students, faculty and staff. Adapted from the US Military Academies, it states simply that “I will not lie, cheat, steal, disrespect others nor tolerate among us anyone who does.”

Lifelong Colleague Philosophy: The CODM emphasizes the development of Lifelong Colleagues at every level. This approach encourages all students, faculty, and staff to make each and every interaction reflect a sincere desire to develop one another as lifelong colleagues during the educational program and throughout their professional careers.

Commitment to each other.

UOP

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?
 1. ex...the use of patient photos on Facebook SOME REPRIMANDS
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities? STUDENT HANDBOOKS, CLINICAL PRE_SESSION HUDDLES, ETHICS COMMITTEE, STUDENT AFFAIRS COMMITTEE
- iii. What specific rules/guidelines do you have in place? STUDENT HANDBOOK

UCSF

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?
 1. ex...the use of patient photos on Facebook None
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities?

Professionalism as a Core Competency is a document outlining professional expectations of students, as well as handling of breaches. The school Bylaws outline the impact of professional misconduct on academic progress. Additionally, each course syllabus includes language about professional expectations, and an Associate Dean gives a reminder presentation at the start of each year.

- iii. What specific rules/guidelines do you have in place?

All information regarding our professional policies and documents can be found here: <http://dentistry.ucsf.edu/students-faculty-staff/students/student-conduct-professionalism-and-dispute-resolution>

USC

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

Confidential

 1. ex...the use of patient photos on Facebook
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities? Ethics and professionalism is part of their daily grade and taught in specific course.

- iii. What specific rules/guidelines do you have in place?

WUHS

Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

Yes. Cannot share due to FERPA.

1. ex...the use of patient photos on Facebook

2. If so, provide examples.

- ii. How do you inform the students of their professional responsibilities?

Students have a presentation during their Welcome Week about their professional responsibilities and guidelines.

- iii. What specific rules/guidelines do you have in place? *We have an established policy on social media which students are contracted to abide by.*

UW

Ethics and Professionalism

Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

5. ex...the use of patient photos on Facebook

6. If so, provide examples.

- ii. How do you inform the students of their professional responsibilities?

iii. The Directors of Compliance and IT departments provide the guidelines and restrictions of using social media at the school/clinic environment

- iv. What specific rules/guidelines do you have in place?

The patients' identifications, medical/dental histories are not allowed to discuss at the social media. Any information exchanges among the dental providers and dental laboratories need to send through the encrypted emails.

UU

• Ethics and Professionalism

• Social Media

- Have you had any student conduct issues related to the improper use of Social Media? Not yet

- ex...the use of patient photos on Facebook

- If so, provide examples.

- How do you inform the students of their professional responsibilities?

- What specific rules/guidelines do you have in place?

Guidelines for Use of Social Media

Use of social media is ubiquitous among students. Students should be aware that unwise or inappropriate use of social media can negatively impact educational and career opportunities. To avoid these negative impacts, students should consider the following:

- You must recognize that actions online and content posted may negatively affect your reputation and standing among patients and colleagues, may have consequences for your career and can undermine public trust in the profession.
- Post content that reflects positively on you and the UUSOD. Be aware not only of the content that you post, but of any content that you host (e.g., comments posted by others on your site). Content you host can have the same effect as content you post.
- Although you may only intend a small group to see what you post, be aware that a much larger group may actually see your post and that your statements may be offensive to others, including classmates or faculty members who may read what you post.
- Employers and others may use social media to evaluate applicants. Choosing to post distasteful, immature, or offensive content may eliminate job or other opportunities and will reflect poorly on the.
- Once you have posted something via social media, it is out of your control. Others may see it, repost it, save it, forward it to others, etc. Retracting content after you have posted it is practically impossible.
- Do not disclose confidential information, as you may be in violation of the law. The University/UUSOD and/or a patient may take action against you for disclosures of confidential information.
- You must be cognizant of standards of patient privacy and confidentiality that must be maintained in all environments, including online, and must refrain from posting identifiable patient information.
- If you interact with patients on the Internet, you must maintain appropriate boundaries of the patient - dentist relationship in accordance with professional ethical guidelines. To maintain appropriate professional boundaries you should separate personal and professional content online.
- If you post content concerning the University or the UUSOD, make it clear that you do not represent the University or the UUSOD and that the content you are posting does not represent the views of the University or the UUSOD and does not obligate the UUSOD in any manner.
- Make sure the content you post is in harmony with the ethical or other codes of dentistry. Violations of the Student Code of Ethics may result in action against you
- Realize that you may be subject to action by the University/UUSOD for posting or promoting content that substantially disrupts or materially interferes with University/UUSOD activities or that might lead University/ UUSOD authorities to reasonably foresee substantial disruption or material interference with University activities. This action may be taken based on behavioral misconduct, academic performance, academic misconduct, or professional misconduct, and may range from a reprimand or failing grade on a clinical experience or rotation to dismissal the UUSOD.

If you observe content posted by colleagues that appears unprofessional, you have a responsibility to bring that content to the attention of the individual, so that the student can remove it and/or take other appropriate actions. If the behavior significantly violates professional norms and the individual does not

take appropriate action to resolve the situation, the you should report the matter to the Assistant Dean for Education and Student Life



Consortium of Operative Dentistry Educators (CODE)

016 National Agenda

Prepared by:

Mary L. Stafford DMD – National Director

mary.stafford@mu.edu

Regional Meeting Reporting/National Meeting Information

The 2016 National Agenda was established after a review of the suggestions contained in the reports of the 2015 F Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas were reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect as to what has changed and the response/action taken and/or the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending a Regional Meeting is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to timely publication of the National Annual Report.

Continue to invite your colleagues, Dental Licensure Board examiners, and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings. The strength of the organization lies in its membership.

Each Region should select next year's meeting site and date/tentative date during your Fall Regional CODE meeting so this information may be published in the Annual National Report and on the CODE website.

The Regional meeting reports are to be submitted to the National Director **in publishable format** as an email attachment.

The required format and sequence will be:

- 1. CODE Regional Meeting Report Form***
- 2. CODE Regional Attendees form***
- 3. Summary of responses to the National Agenda**
- 4. Individual school responses to the National Agenda**
- 5. The Regional Agenda summary and responses**

*(copies may be obtained from the CODE website: www.unmc.edu/code or within this document)

Send an electronic copy of the final regional report via an email attachment to the National Director (gary.stafford@mu.edu) within thirty (30) days of the meetings conclusion.

National CODE Meeting:

The meeting will be held Thursday, February 23rd, 2017 from 5:00 – 6:00 pm at the Drake Hotel, 140 East Walton Place, room TBA in Chicago, IL. Any member who would like to present or who has suggestions for speakers should contact the National Director for more information.

2017 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held during the ADEA Annual Session & Exhibition, March 18-21, 2017 in Long Beach, CA.

National Directory of Operative Dentistry Educators:

The CODE National Director maintains the National Directory of Operative Dentistry Educators as a resource for other dental professionals. It is critically important that this information be as current as possible.

You may update your university's directory listing on the CODE website at www.unmc.edu/code or by sending an email directly to the National Director at gary.stafford@mu.edu.

In an effort to keep the National Directory up to date, please have each school in your Region update the following information:

1. *School name and complete mailing address*
2. *Individual names: (F/T Faculty), phone number and email address of F/T Faculty who teaches operative dentistry.*
 - a. This could be individual's who teach in a comprehensive care program, etc... if there is no defined operative section of the department.

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete National Directory and publishing the Annual National Report in a timely fashion.

All my best,

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
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Associate Professor and Chair
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2016 National Agenda

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO **Colorado, Marquette, Minnesota**

Marquette: DentsplySirona has been involved in the preclinical D1 Operative and D2 Fixed Prosthodontics courses the past 2 years by providing group demonstrations of Cerec CAD/CAM over a single laboratory session.

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

Marquette: Yes

Minnesota: No. It is the opinion of the course director that students first must have a foundation in traditional Restorative Dentistry (preclinical and ½ year clinical) before they are ready to be trained in CAD/CAM procedures. By having experience with the traditional methods first, teaching digital impressing and CAD/CAM design is vastly simplified.

i. What System?

Colorado: Cerec Bluecam.

Marquette: Unknown

b. How soon?

Colorado: We want to incorporate in 2017. We are starting new course: "Digital Dentistry", at end of the second year. Our comprehensive care faculties will teach the course.

Marquette: Unknown

c. Which courses?

Marquette: Preclinical Fixed Prosthodontics, Preclinical Removable Prosthodontics, Preclinical Introduction to Implants, Preclinical Operative Dentistry

2. YES **Creighton, Iowa, UMKC, Nebraska, SIU**

a. Which courses?

Creighton: D-1, 2nd Sem, Dental Materials, D-2, 2nd Sem, Operative Dentistry

Iowa: D1, 1st semester Dental Anatomy and

D1, 2st semester Operative Dentistry

D2, 2nd semester operative Dentistry

UMKC: Fixed- lecture and lab D2, morphology and occlusion lecture and lab- D1

Nebraska: Operative I (second semester, D-1 Year)

Operative II (first semester, D-2 year)

SIU: Fixed Prosthodontics II (D2,sem2), Operative II (D2, sem2)

b. What System?

Creighton: CEREC

Iowa: Planmeca/E4D, and Cerec Omnicam

UMKC: Cerec

Nebraska: CEREC

SIU: CEREC Omnicam and CEREC Bluecam

c. How long have you been using a CAD/CAM System?

Creighton: 3 years

Iowa: At least 4 years

UMKC: ~ 5 years

Nebraska: Since 2010. We participated in the Sirona grant program.

SIU: CEREC Redcam in 2007, CEREC Bluecam in 2012, CEREC Omnicam in 2015

d. How are you using CAD/CAM in your pre-clinical courses?

Creighton: D-1s – scan and design, D-2s – prep, scan, design, mill, cement

Iowa: Scan, compare (wax-ups, class IV)

Prep, Scan, Design, Mill, Deliver

UMKC: Cutting preps, milling restorations

Nebraska: The students prepare an onlay or crown, image the preparation, design and mill the restoration.

SIU: Fixed Pros. II – students prep dentoform tooth for all ceramic crown, scans with CEREC, designs crown, submits design for milling, cements crown

Operative II – lecture on ceramic inlays and onlays, preparation of inlays and onlays on dentoform teeth

e. What are the prerequisites for its use?

Creighton: None, introduction to the system

Iowa: None

UMKC: Everyone does it

Nebraska: Successful completion of a dental anatomy and dental materials course. Since it is part of the operative courses, there are no other prerequisites.

SIU: None, part of course

f. When do students get to use it?

Creighton: During lab, and designing outside of lab

Iowa: During lab and after hours

UMKC: D1- 2nd semester (occlusion)

Nebraska: see above

SIU: In Fixed Pros. II, D2, semester 2

g. Who provides supervision?

Creighton: Course faculty

Iowa: Course instructors (grads, faculty, and CDT)

UMKC: Faculty lab instructors

Nebraska: Operative faculty and some outside practitioners with CEREC experience. One of our faculty is a CEREC trainer for Sirona.

SIU: Fixed Pros II faculty

h. What training did they receive?

Creighton: Prior experience in practice, or trained by CEREC trainers, or trained by experienced faculty members

Iowa: Training by experienced faculty, training by CEREC and E4D staff (virtual workshop)

UMKC: Lecture and lab instruction

Nebraska: Multiple days of training from Sirona on two different sessions

SIU: Sirona introductory training and various CE courses

ii. Are you using CAD/CAM in your clinical courses?

1. NO **Colorado, Marquette**

a. Do you plan on incorporating CAD/CAM clinically?

Marquette: Yes

i. What System?

Colorado: Cerec Bluecam.

Marquette: Unknown

b. How soon?

Colorado: We want to incorporate CAD/CAM late 2016.

Marquette: Unknown

c. Which courses?

Marquette: Clinical Fixed Prosthodontics (single unit crowns, bridges), Clinical Operative Dentistry (inlays, onlays)

2. YES **Creighton, Iowa, Minnesota, UMKC, Nebraska, SIU**

a. Which courses?

Creighton: D-3, General Dentistry; D-4, General Dentistry

Iowa: OPER 8370 and PROS (D3 -Junior Clerkships) and Family Dentistry (D4-senior year)

Minnesota: DDS 6621 (Introduction to CAD/CAM CEREC Restorations), although an elective course, 90-95% take it. The course involves 5 hours lecture, 16 hours lab, and 9 hours clinic.

Nebraska: Clinical Operative dentistry. We do not currently have a requirement for CEREC restorations.

SIU: Clinical Operative Dentistry

Advanced Clinical Operative Dentistry

Clinical Fixed Prosthodontics

Advanced Clinical Prosthodontics

b. What System?

Creighton: CEREC

Iowa: Cerec Omnicam, Planmeca/E4D, True Definition (3M)

Minnesota: Cerec (Omnicam)

UMKC: Cerec

Nebraska: CEREC Omnicam

SIU: CEREC Omnicam

c. How long have you been using a CAD/CAM System?

Creighton: 3 years

Iowa: At least 4 years

Minnesota: Since 2003

UMKC: 1 year, certain faculty

Nebraska: Since 2011 or 2013

SIU: Since 2007

d. How are you using CAD/CAM in your clinical courses?

Creighton: Crowns and onlays

Iowa: Crowns and onlays

Minnesota: In clinical courses students schedule time in dedicated chairs (Contemporary Dental Center)

UMKC: see above

Nebraska: Mainly for posterior crowns and onlays (from 1st premolar to 1st molar crown). Some replacement crowns under RPDs and implant crowns.

SIU: Students are allowed to book their patient as needed for fabrication of inlays, onlays or full coverage all ceramic crowns in designated CEREC clinic chairs

e. What are the prerequisites for its use?

Creighton: Student must satisfactorily complete:

5 exercises on a mannequin

3 – prep, scan, design, mill, and cement

2 – prep, scan, design

Iowa: Pre-clinical courses

Minnesota: Successful completion of DDS 6621 is required before using CAD/CAM in clinic.

UMKC: Choose faculty wisely

Nebraska: Completion of several conventional crowns.

SIU: Mounted models, Treatment sequence review approval

f. When do students get to use it?

Creighton: After fulfilling pre-reqs, and when prepping a crown or onlay

Iowa: Based on case selection, after faculty approval

Minnesota: Midway through junior year or in the senior year.

UMKC: No strict prereqs, if faculty is comfortable, it is acceptable

Nebraska: D-3 and D-4 students

SIU: One CEREC chair available:

1. Tuesday am and pm session
2. Thursday am and pm session
3. Friday am and pm session

g. Who provides supervision?

Creighton: Faculty that are trained in the technology

Iowa: Course instructors (grads, faculty, and support from CDT)

Minnesota: DDS 6621 course director, Dr. Omar Zidan.

UMKC: Certain faculty

Nebraska: Mainly Drs. St Germain and Dix

SIU: Assigned faculty

h. What training did they receive?

Creighton: Prior experience in practice, or trained by CEREC trainers, or trained by experienced faculty members

Iowa: Training by experienced faculty, training by CEREC and E4D staff (virtual workshop), practice experience

Minnesota: Dr. Zidan has been involved with CAD/CAM since 2000. He is one of the early proponents of the CAD/CAM technology in dental education

UMKC: Prosth and extensive CE

Nebraska: See training for preclinical faculty

SIU: Patterson/Sirona/CEREC training and clinical experience

iii. Are you using virtual reality haptic feedback training?

1. NO **Colorado, Creighton, Iowa, Marquette, Minnesota, UMKC, Nebraska, SIU**

a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

Creighton: Not at present. Cost is prohibitive.

Iowa: Not at this time

Marquette: No

Minnesota: There are no definite plans, although the dean has proposed a committee to look into the feasibility of the technology.

UMKC: Maybe- admin wants to, faculty doesn't want to

Nebraska: No plans to use in the near future.

SIU: No plans have been made

i. What System?

b. How soon?

2. YES

a. Which courses?

b. What System?

c. How long have you been using Virtual Reality Haptic Feedback Training?

d. Who provides supervision?

i. What training did they receive?

- ii. What System?
- iii. How is it being used?
- e. Is it efficacious?

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO Marquette

UMKC: NO preclinical- beginning to integrate

Nebraska: Not for full-arch impressions

a. Do you plan on incorporating Digital Impressions in your clinical courses?

Marquette: Yes

Nebraska: In the future, yes

b. What System?

Marquette: 3M True Definition Scanners

Nebraska: At this point Trios would be the likely choice

c. How soon?

Marquette: Within the next 12 months

Nebraska: Unknown, but our chancellor wishes our campus to use as much digital technology as possible.

2. YES Colorado, Creighton, Iowa, Minnesota, SIU

UMKC: beginning now, few faculty. Some intraoral, some on stone model, some in innovation clinic (intraoral). Depends on faculty

a. What System?

Colorado: 3 Shape trios.

Creighton: CEREC (General Dentistry), iTero (Fixed Pros)

Iowa: TRUE Definition (3M)

Minnesota: 3M ESPE Lava™ Chairside Oral Scanner (C.O.S.)—discontinued; now using TRIOS 3Shape with CEREC connect.

UMKC: Omnicam (have bluecam, minimally used)

SIU: CEREC Omnicam, 3M True Definition

Plans to purchase 3Shape TRIOS

b. How long have you been using a Digital Impression System?

Colorado: 3 years.

Creighton: CEREC – 3 years, iTero – 6 years

Iowa: At least 2 years

Minnesota: Since 2012

UMKC: <1 year

SIU: CEREC since 2007

3M True Definition since 2014

c. What are the prerequisites for its use?

Colorado: Students have to have 3 regular impressions taken before doing the digital impression.

Creighton: [CEREC](#)

Student must satisfactorily complete:

5 exercises on a mannequin

3 – prep, scan, design, mill, and cement

2 – prep, scan, design

Iowa: Pre-clinical courses

Minnesota: successfully complete DDS 6621

UMKC: Discuss tx with faculty

SIU: Supervising faculty agreement

d. **When do students get to use it?**

Colorado: Their third or fourth year on the clinic floor.

Creighton: After fulfilling pre-reqs, and when prepping a crown or onlay

Iowa: Diagnostic impressions for implant cases

Minnesota: Midway through junior year or in the senior year.

UMKC: Primarily during innovation rotation

SIU: CEREC Omnicam mostly for all ceramic crowns when scheduled under trained faculty

3M True Definition mostly for scanning encode implant abutments

e. **Who provides supervision?**

Colorado: Comprehensive care faculty.

Creighton: Faculty that are trained in the technology

Iowa: Clinical instructors

Minnesota: faculty who have been trained

UMKC: Innovation faculty

SIU: Trained clinical faculty

f. **What training did they receive?**

Colorado: Faculty calibration and CE courses.

Creighton: Prior experience in practice, or trained by CEREC trainers, or trained by experienced faculty members

Iowa: On-site training from 3M, and support of a CDT

Minnesota: 1 full day training course—involving both didactic and practice on manikins

UMKC: Prosth + additional CE

SIU: CEREC, Sirona, 3M introductory training and clinical experience

v. **Are you using 3D printing for any pre-clinical or clinical application?**

1. NO **Creighton, Marquette, Minnesota, UMKC, SIU**

a. **Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?**

Creighton: Some model work is fabricated from outside labs for clinic

Marquette: No

SIU: No plans at this time

- b. What System?
- c. How soon?

2. YES **Colorado, Iowa, Nebraska**

a. What System?

Colorado: By lab 3D Biocad (Seattle) and lab PDA (Colorado).

Iowa: Students receive a 3D diagnostic printed cast to fabricate implant guide. Models are printed by outside lab, once digital impression is sent out.

Nebraska: The desktop printer is from a company called FormLabs. It is the first to offer FDA certified dental resin.

b. How long have you been using 3D printing?

Colorado: 3 years.

Iowa: 2 years

c. How do you use 3D printing?

Colorado: Crowns, night guards, implants.

Nebraska: Our commercial lab uses 3D printing to produce “wax-ups” for cast restorations, but do not do many cast restorations at this point in time. We are using 3D printing for surgical guides for implant placement.

d. What are the prerequisites for its use?

e. When do students get to use it?

Nebraska: Currently in use, but only for perio. Grad students.

f. Who provides supervision?

g. What training did they receive?

Nebraska: They were self-trained.

vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

Colorado: Calibration sessions and CE courses.

Creighton: We conducted CE courses inviting all faculty to attend. There were multiple time slots available to meet everyone’s schedule. Each attendee was assigned a Bluecam AC. With the help of the faculty instructors they scanned, designed, milled, and tried-in the restorations. They could then observe firsthand, the intimate fit and accurate anatomical replication of the tooth. Turnout for these CE course was about 90%.

Iowa: Health Technology Committee is responsible for evaluating request of new and current technology; it has members from each department and administration. Implementation, training are always discussed. In addition, teaching –in-service, in house training and having a trained CDT helps tremendously.

Marquette: Train specific faculty members to be “point persons”. Work with all full and part time faculty to increase familiarity with equipment and implementation goals. Work to improve all faculty proficiency via regular calibration.

Minnesota: Integration of new technology often is impeded by our own lack of confidence in its future. Many new technologies have come and gone—and some are very expensive.

UMKC: . offer education- bring to our school and offer opportunities for travel

Nebraska: The Operative faculty have been more willing to implement technology compared to the prosthodontic faculty. However they have been involved, too. It is important to have the faculty well trained through seminars and hands-on training to make them comfortable with new technologies.

SIU: Offer training to clinical faculty, solicit faculty with experience in private practice

b. Clinical Organizational Structure

i. How many pre-doctoral students do you have per class?

Colorado: 80 for 4 year program and 40 for advanced standing 2 year program.

Creighton: 85

Iowa: 80

Marquette: 100

Minnesota: 120-136 (DDS 100, increasing to 110 with class of 2019; PASS(a) 10, increasing to 16 for class of 2018; DTs(b) 10)

(a) Program for Advanced Standing Students (UMN PASS) is a 29-month program for graduates of dental schools outside of the U.S. and Canada, who seek to practice dentistry in the U.S.. (b) Dental Therapy has evolved into the new Bachelor of Dental Hygiene/Master of Dental Therapy dual degree program, with our first class beginning fall 2016; the program is year round, 32 months or about 3 years, and involves the same Operative preclinical program as the DDS students and 3 semesters of Operative Dentistry in the Comprehensive Care clinic. **UMKC:** 109

Nebraska: 48 students per class

SIU: Approximately 50

ii. What are your normal hours per clinical session?

Colorado: 3 hours: 9am to noon and 2pm to 4pm.

Creighton: 4 hours

Iowa: 9-12 and 1-5:00.

Marquette: 9:00 AM to 12:00 PM and 1:00 PM to 4:30 PM

Minnesota: 9 AM -12 noon, 1:15-4 PM

UMKC: 9-12, 1-4/4:30, 1-evening clinic sessions

Nebraska: 8:00 to 11:45 AM and 1:00 to 4:45 PM

SIU: 9-12, 2-5

iii. How are your clinical groups set-up?

Colorado: We have 4 Teams, each team has 6 Practice groups (DS3, DS4, ISP1 and ISP2). Each Practice group has 10 students.

Creighton: By department, i.e., General Dentistry, Diagnostic Sciences, Fixed Pros, Rem Pros, Perio, Endo, Oral Surgery, Pedo, Ortho

Iowa: By disciplines in D3, students rotate through clerkships. (Groups of 10-20) Family dentistry (general dentistry) in D4 - four group practices of 20.

Marquette: Comprehensive Patient Management Groups (CPMGs). We have 5 distinct undergraduate clinics, each housing 2 CPMGs for a total of 10 CPMGs. Each CPMG Leader is assigned 10 students from *each* grade level (D1-D4).

Minnesota: Both junior (DDS3) and senior (DDS4) years are spent in comprehensive care clinic which is organized into 7 color groups—each assigned 15-16 DDS4s, 15-16 DDS3s, 4-5 PASS, 1-2 DTs, 2-3 hygiene, DDS2s occasionally come to chairside assist; sharing 16 chairs. Also one “team care clinic” with 16 chairs through which students rotate.

UMKC: Comprehensive care in Team format- 35-40 students/class in each team. Additional rotations- OS, emergency, innovation, community health. Additional clinics- endo and pedo- set up their own patients in these clinics

Nebraska: Group Leader, Associate Group Leader and an Administrative Assistant; 12 seniors and 12 junior students per group. Second year students and dental hygiene students will be incorporated in the future.

SIU: Pedo, Ortho, Perio, Operative, Endo, Removable have designated chairs that students sign patients up for
Fixed has teams requiring students to sign patients up for chairs under their designated team faculty

iv. How do your clinical groups function?

Colorado: We have comprehensive care from the end of the second year.

Creighton: Each clinical group sticks to its discipline except for General Dentistry. GD section procedures include:

- Operative
- Comprehensive exams
- Periodic exams
- Limited exams
- Fixed pros, excluding:
 - bridges greater than 3 units, or
 - restoration of implants
- Acute care clinic, including:
 - Diagnosis/x-ray
 - Operative
 - Endo – pulpotomies
 - Oral Surgery

Iowa: D3 - Operative Dentistry/pediatric clerkship 10 weeks only procedures in the scope of practice of pedo and operative

Pros/Endo/Perio- superbloc 20 weeks

OMS/Radiology/Oral Diagnosis -5 weeks each.

D4- general dentistry practice

Marquette: These function like small group practices operating under the comprehensive care model. All operative, removable prosthodontics, fixed prosthodontics and non-surgical periodontal needs are treated within the groups. Patients requiring endodontic therapy, surgical periodontal therapy, orthodontic treatment, or oral surgery are “referred” to specialty clinics. The student provider typically follows the patient to these clinics to either directly provide care or assist with the care that is to be provided.

Minnesota: Each color group is led by a group leader. Students remain primary providers for their patients throughout their time at the school and control patient scheduling. Each clinic session is supervised by one group leader or substitute group leader and one Operative Dentistry faculty. Group leaders are in the Primary Care department and Operative Dentistry faculty are in the Restorative Sciences department—this organizational difference creates some concern regarding the consistency of teaching between preclinical (run by Operative Dentistry) and clinical courses. Pressure on chairs is relieved by student rotation to Pediatric Dentistry, Oral Surgery, and Outreach, as well as taking patient to discipline-directed clinics: Prosthodontics, and Periodontics. Faculty-to-student ratio is generally 1:8.

UMKC: Team Coordinator- handles most admin stuff for team; 2 practice coordinators (1 per class) per team- meets one on one with students to help organize clinic needs; more frequently with students who are in trouble or may be in trouble

Nebraska: They function like a large group practice. All phases of dental treatment are within the groups. The groups screen new patients, plan treatment, treat emergency patients, complete prophylaxis and periodontal scaling and root planing and restorative treatment. Endodontic procedures, oral surgery and orthodontics are completed in the specialty clinics for the most part, although some of those procedures will be completed within the group clinics.

SIU: See above

v. How long have you had your current structure?

Colorado: We had comprehensive care last 30 years.

Creighton: 15-20 years

Iowa: At least 15 years

Marquette: Since 2002

Minnesota: c. 20 years

UMKC: 25-30 years? PC is relatively new- <5 years

Nebraska: 25 days

SIU: Approximately 5 years

vi. Do you plan on changing in the near future?

Colorado: NO

Creighton: With the advent of a newly constructed school, a review process is now being undertaken and change may be forthcoming.

Iowa: NO

Marquette: No. However, our school has begun to investigate the concept of vertical care teams (a D1, D2, D3 and D4 student all being assigned to specific aspects/disciplines) operating within the existing structure.

Minnesota: Strategic planning working group is looking at different clinic models. Associate Dean for Clinical Affairs and Dean have proposed denying clinical faculty a day in private practice and requiring that they work in in-house clinics with student's assisting and observing.

UMKC: nope

Nebraska: NO

SIU: Possibly, the restructuring into teams for all disciplines has been evaluated but not yet implemented

c. Screening

i. How are patients screened for acceptance into your pre-doctoral program?

Creighton: Many ways

- Assessment Clinic – about one hour given to each patient to see if they are eligible to be treated at our clinic.
- Relatives, friends, acquaintances of student
- Referrals from private practice

Iowa: Most patients for the pre-doctoral program come in through a Screening Clinic. At that point the patient is evaluated as to suitability for the students clinics and then it is determine where they should initially go (Oral Diagnosis for 3rd yr., Family Dentistry for 4th year, Special Care,) Many factors are considered when assigning a patient such as medical history, travel time, apparent complexity of dental needs, etc. There are some patients who are directly referred by an outside provider into a clinic for a specific treatment and then they return to their private dentist. These patients would typically come in for Prosthodontic treatment, Endodontic treatment, Oral Surgery, or Periodontics treatment, or Esthetic Dentistry. (Director of Clinics)

Marquette: We are currently in a transitional period. We have "screening doctors" that screen patients during set clinical hours and in set areas. Additionally, CPMG Leader doctors are also becoming more involved in the screening process and do so during available time within the CMPGs.

Minnesota: No advanced screening. Initial Faculty Consultation (IFC) is now an appointment with a student in a color group.

Nebraska: By the groups, and particularly by the Group Leader or Associate Group Leader.

SIU: Patient is scheduled for a screening appointment at which a 5 point criteria system is used to determine their acceptance or referral:

PATIENT COMPLEXITY LEVELS:

Level I - Suitable for beginning student--Caries/defective restorations to be restored with direct restorations; 1-2 single unit crowns; post and cores; Kennedy Class III RPD; Class I jaw relationship dentures; minimal to moderate residual ridge resorption (RRR).

Level II - Suitable for experienced Year III student--Failing restorations where crowns are clearly indicated; single unit crowns and short span bridges; Kennedy Class I RPD; moderate RRR; treatment plan and prepare for 1-2 implant restorations

Level III - Suitable for Year IV student--High caries rate, but not rampant; no more than 10 units of crown & bridge; not to exceed 5 unit bridges unless canine-to-canine; severe class II, III dentures; P/P; severe RRR; CO:MI discrepancy correctable with occlusal adjustment; 3 or fewer teeth requiring endodontic treatment; restoration of 1-2 posterior implants

Level IV - Suitable for graduate student (resident/fellow)--Rampant caries (unless expected to be extracted); extensive root caries (more than 3-4 teeth); severe RRR w/class II or III jaw relationship; >10 restorations at increase VDO; CO:MI discrepancy not correctable with occlusal adjustment/joint symptoms present/requiring multi-disciplinary approach; >3 teeth requiring endo; >3 implants, anterior implants, implants requiring augmentation

Level V - Not suitable for the School of Dental Medicine--Unreasonable expectations or demanding; wants "pick and choose" dentistry; severe TMD; maxillofacial defect requiring obturator (greater than 1cm)

1. Provide numbers screened and yield if available

Colorado: We have 80-100 patients scheduled for screening every week. About 75% come to the appointments and about 70% are accepted.

Creighton: From Assessment Clinic:

Screened = 96 scheduled/week

30% no show

Yield = 60/week

Iowa: Patients go through admissions clinic (on average 16 patients are screened per day) with examinations and treatment plans completed in the oral diagnosis clinic (10/day). There is no overbooking and we have significant numbers of failures and late cancellations.

Marquette: Out of every 10 patients appointed for screening, 7 patients "show up" for the appointment. Approximately 6 of the 7 patients are accepted to the school and assigned to radiology for radiographs and then assigned to a student provider. We do lose additional patients between the screening acceptance and the radiology appointment.

UMKC: faculty screen 5-20/clinic session

Nebraska: In the past we have screened about 1700 new patients each year with about 1500 being accepted for treatment.

SIU: We schedule 46 screening/week – our wait list is three months. Out of the 46 scheduled, usually more than half show up. 1-3 patients are not accepted /week. These patients are placed on the AEGD screening list

ii. Are you having difficulty finding suitable patients?

Colorado: We have good patient pool, but not very easy to find all specific procedures students need for their core experiences. Eg. Removable dentures, endodontics.

Creighton: YES

Iowa: I think it depends of the time of the year. However, the recent Medicaid Expansion has helped quite a bit. (Director of Clinics)

Marquette: Yes

Minnesota: We accept more complex and difficult patients than in the past because of concern for having enough.

UMKC: No (though students complain about not having enough requirements sometimes b/c non-departmental)

Nebraska: We have adequate numbers of patients, but our pool tends to be elderly and medical assistance patients. We have had some problems finding endodontic patients and at times denture or partial denture patients, but this varies from year to year. Some years we have an abundance of denture patients, other years they are harder to find.

SIU: No, sufficient to meet current requirements, excess of removable
Recently changed requirement of cast post and core to manikin due to infrequency of treatment planning, also eliminated requirement of 2 surface class II's in addition to the 3 surface class II's to prevent loss of ideal board lesions

iii. If so, what are the main reasons?

Colorado: Time and cost.

Creighton: Multiple reasons:

- Changes in disease patterns
- Inefficiency of screening clinic

Marquette: We have identified some “self-inflicted wounds” related to Customer Service. Website and phone issues (not patient friendly, statements like, “you will be put on a wait list”, etc.) Phone calls do not “go through”, excessive waiting times, unfriendly responses. As a result, we “turn off” many good patients who ultimately end up seeking care with other providers. We find that, often times, we are left with patients who have nowhere else to seek treatment.

Minnesota: Impediments to patients are parking difficulties and charges, long appointments, and poor signage.

Nebraska: Lack of advertising could be an issue. We do not currently have a presence in the UNL Student Health Center, which I think would be a valuable rotation for our students.

II. Cariology

a. Caries Control

i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

Colorado: Fluoride products (Strong Evidence Base). We also recommend chlorhexidine, MI Paste and Xylitol gums when indicated.

Creighton: Preident 5000, MI paste, F⁻ varnish

Iowa: Preident 5000, Fluoride Varnish application (3-4X/year), if patient has Hypo salivary Gland Dysfunction and this is one of the risk factors, then we are recommending xylitol or sugar free gum or baking soda rinses if the problem is the buffering capacity or low pH level at rest or stimulated

Marquette: Office applied topical fluorides (foams, varnishes), MI Paste, Preident 5000, over the counter fluoride rinses (ACT, Listerine, Total Care)

Minnesota: Caries control measures are of two main types: *preventive treatment* and *therapeutic treatment*. The former is low in intensity and open ended (i.e., for the life of the patient). The latter is high intensity, short term and to a defined endpoint (such as pathogen suppression or remineralization). The caries active patient will generally require a therapeutic level of treatment whereas the caries prone individual will require a preventive level of treatment.

The importance of **fluoride-containing dentifrice** cannot be over-stated. There is evidence that the worldwide decline in dental caries rates that has been recorded in most industrialized countries in the last 30 years is attributable to the widespread use of fluoride-containing dentifrice.ⁱ Even when fluoride is ingested from a fluoridated water supply or in the form of fluoride supplements, use of fluoride-containing dentifrice still provides additional benefit, because topical and systemic fluorides have an additive effect.^{ii,iii} Over-the-counter fluoride mouth rinses are another source of fluoride available for controlling dental caries.

All caries prone and caries active patients should be brushing with a fluoride-containing dentifrice at least twice daily, in the morning and immediately before retiring to bed. Benefits can be increased by using higher concentrations of fluoride (1,500 ppm F) and brushing more frequently (3-4 times per day).^{iv}

Xylitol, a naturally occurring sugar-substitute, has demonstrated an ability to interfere with dental caries. The anti-caries abilities of xylitol have been studied most notably in chewing gum and candy vehicles.^{v,vi} Frequent use of chewing gum with high levels of xylitol has been shown to prevent dental caries and harden even advanced caries lesions—even in the face of a highly cariogenic diet.^{vii,viii} Frequent use of chewing gum with high levels of xylitol has been shown to reduce MS loads on the dentition, and presumably this is the mechanism by which it exerts its cariostatic effect.^{ix} To be effective, the chewing gum must be sweetened solely with xylitol. Chewing gums sweetened with combinations of xylitol and other sugar alcohols produce no measurable caries-inhibiting effect.^x The optimum dose of xylitol is 6-10 grams per day divided into four separate applications.^x Xylitol-sweetened fluoride dentifrice appears to be more effective than the typical sorbitol-sweetened fluoride dentifrice at preventing decay.^{xi} Xylitol is also available as crystals,

mouth rinses, candies, tooth brushing solution, gels for slow release pacifiers, nasal washes, and baby dental wipes.

High intensity fluoride treatment refers to both professionally applied topical fluoride gels, foams, or varnishes, and to prescription-strength fluoride gels or mouth rinses for home use. High-intensity fluoride treatments have been shown to be valuable in preventing dental morbidity in patients with the most aggressive forms of dental caries and in stimulating the remineralization of incipient lesions.^{xii} High-intensity fluoride products are much more effective at preventing dental morbidity in caries active individuals than are low-intensity products.^{xiii,xiv,xv,xvi} Professionally applied acidulated phosphate fluoride (APF) gel can provide additional protection against dental caries even if a patient is already brushing three times per day with a fluoridated dentifrice.^{xvii}

Prescription strength fluoride gels and mouth rinses for home use provide a high concentration of fluoride to the dentition, which is valuable for remineralizing early caries lesions. These products can be used daily for a limited period--until remineralization is achieved.

High-intensity fluoride mouth rinses (0.2% NaF or 0.09% F) are about four times as concentrated as the over-the-counter rinses (0.05% NaF or 0.02% F).

High-intensity fluoride dentifrices (e.g., *PreviDent 5000 plus*, *Colgate Oral Pharmaceuticals*) are also available (1.1% NaF or 0.5% F).

Fluoride varnish applied two to four times a year can produce substantial reduction in caries increment, regardless of exposure to other sources of fluoride.^{xviii} Fluoride varnish has special applicability for root caries risk or to remineralize root caries lesions. Applied by the dentist to exposed root surfaces, these varnishes offer an effective remineralization treatment.^{xix,xx} Duraphat [Colgate] is marketed for treating hypersensitivity but can be used as an effective remineralization treatment (off-label use).

Chlorhexidine has a broad-spectrum antimicrobial activity. Even so, mutans streptococci (MS) are more susceptible to its killing action than are other members of the normal oral flora.^{xxi} Chlorhexidine appears to have enough specificity that it can suppress the proportions of MS in the micro-flora on a dentition initially harboring high levels of these organisms. In those subjects most favorably affected by treatment, MS can remain suppressed for many months after treatment ceases.^{xxii,xxiii} However not all individuals respond optimally to chlorhexidine treatment. Once chlorhexidine treatment ceases, the rapidity of return of MS to pretreatment levels varies considerably from subject to subject,^{xxiv,xxv} and appears to be primarily due to incomplete eradication of, rather than re-inoculation with, the pathogen.^{xxvi,xxvii} The average rate of rebound to pre-treatment levels is in the range of two weeks to six months.^{xxii-xxvi,xxviii,xxix} To maintain MS suppression for a period of several months requires either repeated chlorhexidine treatment or some other form of intervention. Sugar restriction in a hamster model demonstrated the ability to prevent MS return following chlorhexidine suppression.^{xxx} Topical fluoride treatments are capable of prolonging MS suppression for up to 12 weeks following chlorhexidine treatment.^{xxxi} Chewing

xylitol gum after meals has been shown to prolong the suppression of mutans streptococci following chlorhexidine treatment for at least three months.^{xxxii}

Casein-phosphopeptide amorphous calcium-phosphate (CPP-CP) [trade name Recaldent] is a milk-derived protein which can provide bio-available calcium and phosphate to the teeth. Exogenous calcium phosphate appears to be beneficial to any caries active patient.^{xxxiii,xxxiv,xxxv} However, this strategy has particular applicability to cases of profound oral dryness.^{xxxvi,xxxvii} Trident Xtra Care chewing gum [Cadbury Adams USA LLC] contains CPP-CP. Chewing gum appears to be an economical and effective way of supplying exogenous calcium phosphate.^{xxxviii,xxxix,xl}

A recent systematic review article compared the efficacy of several of these agents [Prevention of root caries: a literature review of primary and secondary preventive agents. Gluzman R, et al. Spec Care Dent 2013; 33:133-140.]

1) Caries preventive treatment in general adult population

Treatment	# Randomized Controlled Clinical Trials	Comparison Group	Caries Reduction
1-40% Chx Varnish every 1-3 mos	4	Placebo	41-57%
22,500ppm NaF Varnish every 3 mos	2	Placebo	56-64%
1,100ppm NaF Toothpaste daily	1	Placebo	67%
38% Silver Diamine Fluoride solution annually	1	OHI	72%
225ppm NaF rinse daily	1	22,500ppm NaF Varnish	36%
960ppm SnF₂ gel every 3 mos	1	22,500ppm NaF Varnish	35%
1,100ppm NaF + Triclosan Toothpaste daily	1	1,100ppm NaF Toothpaste	90%
Amorphous Calcium Phosphate + 250ppm NaF rinse daily	1	1,100ppm NaF Toothpaste + 250ppm NaF rinse	98%

2) Caries therapeutic treatment (arresting caries) in general adult population

Treatment	# Randomized Controlled Clinical Trials	Caries Arrested
5,000ppm NaF Toothpaste daily	2	52-82%
22,500ppm NaF Varnish every 3 mos	3	54-92%

3) Caries preventive treatment of root caries in vulnerable elderly

Treatment	# Randomized Controlled Clinical Trials	Comparison Group	Caries Reduction
38% Silver Diamine Fluoride solution annually	1	Placebo	72%
Amorphous Calcium Phosphate + 250ppm NaF rinse daily	1	1,100ppm NaF Toothpaste + 250ppm NaF rinse	98%

2) Caries therapeutic treatment (arresting caries) of root caries in vulnerable elderly

Treatment	# Randomized Controlled Clinical Trials	Caries Arrested
5,000ppm NaF Toothpaste daily	2	64%
22,500ppm NaF Varnish every 3 mos	3	78%

UMKC: Rx preventent, fluoride varnish, occasionally recommend fl mouthrinse- Colgate Phos-flur

Nebraska: High fluoride toothpastes (Prevident) or gels, fluoride varnishes, xylitol products, occasionally chlorhexidine. In-office fluoride treatment: provide 3 consecutive fluoride varnish treatments during restorative appointments if needed.

Home fluorides: Rx - Prevident 5000 plus to be used 2/x daily in place of their daily dentifrice if needed.

Xylitol products: 3-5 times daily.

Antimicrobial regimen: (After all cavitated lesions are restored) - 0.12% chlorhexidine gluconate (Peridex) rinse, 0.5 ounce for 30 seconds, morning and night for 2 weeks.

SIU: Fluoride (Prevident 5000)

1. Do you use Carbamide Peroxide for caries control?

NO: Colorado, Iowa, Marquette, Minnesota, Nebraska, SIU

Creighton: Only if the teeth are dark 😊

UMKC: No- have heard mention (must be in didactic courses) but not applied

2. Do you use Sodium Diamine Fluoride for caries control?

Colorado: We are trying to implement Sodium Diamine Fluoride.

Creighton: NO

Iowa: Yes, in some cases

Marquette: No

Minnesota: Silver Diamine Fluoride [Advantage Arrest, Elevate Oral Care] was FDA approved in 2015 for dental hypersensitivity. Using it for Preventive Treatment (preventing new cavities) or for Therapeutic Treatment (halting existing cavities) is considered off-label use. The mechanism of action includes: Ag+ is antimicrobial and stimulates sclerotic dentin formation, amine groups help create a basic environment, and fluoride catalyzes remineralization. A recent systematic review demonstrated its effectiveness [Silver Diamine Fluoride Systematic Review. Rosenblatt et al., J Dent Res 2009; 88:116-125]

Fluoride Delivery System	Estimated Caries Reduction	Reference
Salt	15%	Marthaler & Petersen, 2005
Toothpaste	24%	Marinho et al., 2004a
Mouthwash	26%	Marinho et al., 2004b
Water (Adults)	27%	Griffin et al., 2007
Gel (Children)	28%	Marinho et al., 2002

Water (Children)	34%	Do & Spencer, 2007
Varnish	46%	Marinho et al., 2002
Silver Diamine Fluoride (Permanent Teeth)	>60%	Rosenblatt et al., 2009
Silver Diamine Fluoride (Primary Teeth)	>70%	Rosenblatt et al., 2009

Nebraska: NO

SIU: NO

ii. What evidence do you have to support your use/non-use?

Colorado: We use ADA recommendations and current publications.

Creighton: Preident 5000 – Time tested

Iowa: ADA Clinical recommendations, ICCMS

Marquette: Evidence is supportive, but it has not been deployed at our school.

Nebraska: We generally consider sodium diamine fluoride more of a pediatric treatment and are not aware of much literature supporting its use in adult populations. However there are some publications that indicate it might be effective on root caries for elderly patients. Tooth discoloration from the use of the medicament is also a concern, especially for adult patients.

We are aware of the use of carbamide peroxide in special needs patients, but have not seen much evidence to support its use in the general population.

SIU: none

b. Caries Removal

i. Do you teach total or partial caries removal?

Colorado: We teach partial caries removal when indicated.

Creighton: Total caries removal

Iowa: For extensive lesion we teach selective to soft and in some specific cases we teach stepwise. For shallow to moderate we teach selective to firm. The peripheral tissue is always removed as selective to hard. We do not teach not teach complete caries lesion removal.

Southern CaMBRA Coalition

Agenda 2016

Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? CaMBRA with modifications adding diet detailed assessment

1. How does caries risk assessment manifest in the didactic/pre-clinical courses? Mostly didactic and clinical courses integrate the CRA

- a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others? Preventive and community department (including Geriatrics) , operative, Oral diagnosis, pediatric dentistry and family dentistry
- b. In which courses is caries risk assessment taught? Cariology, Geriatric and special needs, Operative I,II,III, Pediatric dentistry II and III
- c. Is the teaching consistent across courses and disciplines?

For the most part between Pedo, Preventive, Operative and some in OD and family dentistry but need more reinforcement in the clinic and didactic in other departments such as pros

2. How does caries risk assessment manifest in the clinic?
 - a. How is caries risk assessed and documented in patient records? We have our CRA form in Axium and it's completed for all patients that come to the school through oral diagnosis clinic and family dentistry. Should be review at every appt by the student in prevention, operative II and III. It's part of family dentistry but not reinforced all the time by every faculty member
 - b. Do students medically manage caries when indicated? yes
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? Yes, in many ways related to diagnosis, intervention, caries removal, treatment and prognosis
3. How is competency in caries risk assessment and management assessed over the four years of the curriculum? We introduce a learning guide and help them through the though process of integrating caries risk assessment into their clinical decision making from D1-D3 and by D4 we hope they have an automatic thought process to do this in every patient. During the D1, D2 and D3 the student will show progression to competency and by the D3 they have to demonstrate that they gather correct the data (Risk factors) and implement the recommendations to their patients.
4. How does caries risk assessment manifest in the faculty practice at your institution? I would say some people implement the form other not but the majority do not.

Marquette: Partial Caries Removal. (However, many part time clinical faculty are still requesting total caries removal in many/all circumstances... we are working on improved calibration.)

Minnesota: Total caries removal, with the exception of indirect pulp capping.

UMKC: Partial for extensive caries, total for moderate caries, becoming more and more conservative for initial lesions- fluoride (NOT using sealants over caries)

Nebraska: We generally advise total removal of caries, however if we feel pulpal exposure is likely (especially with patients who are unable to pay for endodontic therapy) we will, at times, leave a small amount of caries. In general we will put a glass-ionomer liner over the remaining caries and place a restoration. If the tooth remains asymptomatic we do not routinely re-enter the tooth months later to remove the remaining caries as was recommended in the past.

SIU: Total, but varies on case by case basis and instructor preference

III. Materials and Techniques

a. Bulk Fill Composite Resin

Colorado: NO

Minnesota: NO

UMKC: NO

i. Do you teach the use of bulk fill composite resin pre-clinically?

Creighton: No, due to our research that demonstrates depths of cure to be only about 2.5mm – 3.5mm

Iowa: Only didactically

Marquette: No, but it will be introduced this academic year (into the D1 Operative Course).

Nebraska: NO

SIU: Yes, but as a base not the entire restoration and still in 2mm increments

ii. Do you use bulk fill composite resin clinically?

Creighton: No

Iowa: No

Marquette: Yes. It was made available for student use this academic year.

Nebraska: Except for Panacore, no.

SIU: Yes, in the same way as pre-clinically

iii. Which material(s) do you use?

Creighton: TPH and Z250

Marquette: SureFil SDR

Nebraska: See above

SIU: Surfil SDR

iv. What is your preferred technique for use?

Creighton: TPH in most areas of the mouth, Z250 in the posterior

Iowa: Incremental buildup engaging as few of walls as possible with each increment

Marquette: Prepare, Etch, Prime, Bonding agent/adhesive, place SureFil in 2 mm increments (must remain 2.0 mm away from occlusal cavosurfaces), full 20 second cure, traditional composite resin occlusal layer with cure, finishing/polishing

SIU: Place Surfil as first increment in posterior class II boxes and as base in any deep composite restoration in posterior-helps prevent voids, insufficient curing and potential C factor effects

v. What evidence do you have to support your use/non-use?

Creighton: Preliminary research that we have conducted show curing depths of only 2.5mm -.5mm for bulk fill composites

Marquette: Growing evidence is supportive

Minnesota: We have not yet adopted the bulk-fill composites for the following reasons [Dr. Jorge Perdigao].

1. Although one year results are very good, more independent clinical studies are needed to assess long term survival rates.
2. Physical properties of flowable bulk-fill composites are worse than those of current conventional hybrids

3. Proximal contacts are difficult to achieve with flowable bulk-fill materials!
4. There is conflicting data on physical properties from recent research
5. Some of the “new” technologies have been used in other areas (E.g., CRAFT* monomers control stress relaxation during polymerization), but their use in Dentistry is very recent.
6. In general, the depth of cure claimed by manufacturers is reliable (up to 4mm). The claimed depth of cure is not reached if the curing light is not in contact with the composite material.
7. There is a tendency for increased occlusal wear (well documented in vitro for Tetric BF and Sonic F) compared to current ‘incremental’ composites.
8. Most light-cured bulk-fill composites require additional curing steps, except for the dual-cure products

SIU: Research proving acceptable properties of material and clinical experience

Creighton: Preclinical:

- Grade daily work, preps and restorations 1-5 scale
- Grade time-limited practicals, preps and restorations 0-100 scale

Clinical:

- Grade daily work, preps, restorations, professionalism 1-4 scale
- Grade time-limited competencies (Mock Board), preps and restorations using
 - SAT, ACC, SUB, DEF

Iowa: Students need to achieve an overall grade of 70% to pass a course. OSCE, didactic exam, self-study assignments, summative evaluations on clinical procedures, progress assessment (competency exams), case presentations, evidence-based presentation, etc.

Marquette: Pre-clinical: Students must pass all pre-clinical courses. Should a student achieve a failing grade, they are given one opportunity to remediate the course successfully. If they are not successful, the case will be referred to the Associate Dean for Academic Affairs (repeat the course, repeat the academic year, dismissal, etc.) Clinical: We operate under a competency based system. Students often have multiple semesters to develop and display competency. Students must, however, meet milestones by certain points within the curriculum. Failure to reach milestones will result in “U” (Unsatisfactory) grades. They are given one opportunity to successfully remediate. If unable, the student is referred to the Associate Dean for Academic Affairs.

UMKC: typodont practical exams, experiences/ requirements/competencies in clinic, OSCE exam in 4th year. Currently working on professionalism and ethics assessment (rubric?)

Nebraska: D3 Clinical Operative Dentistry

**University of Nebraska
(D4 is similar)**

METHOD OF EVALUATION:

Evaluation will be provided by faculty using objective criteria. Course specifications and grading criteria are published in the course compendium/syllabus (also see [Appendix A-1, Daily Assessment Form](#), and [A-6, Evaluation Criteria](#)). One letter grade for the course will be given after the last clinic session of the spring semester. It will be based on the average of the daily clinic procedure grades, using the following scale (grades are calculated via daily clinic information system evaluations; the hard-copy sheets are used to track clinical progress):

Grading Scale	A = 4.50 – 5.00	C+ = 3.50 – 3.99	NOTE: Grading scale subject to change with appropriate notification
	B+ = 4.25 – 4.49	C = 3.00 – 3.49	
	B = 4.00 – 4.24	F = Less than 3.0	

Competency Examinations

Two pass-fail competency examinations (Class II and Class III restorations on patients) must be passed to complete the course. Students may challenge the competencies any time but no later than the published deadlines (see Course Schedule). To pass the course, students must obtain passing grades for the daily experiences and pass the competency examinations. Details about the competency exam procedures are found in [Appendix A-2](#), and evaluation forms are found in [A-3](#). Each step of the competency procedures must meet evaluation criteria at level 5, 4 or 3 (see [Appendix A-6](#) for criteria) to pass the competency examination.

Additional Factors Affecting Grades or Course Completion

Failure to challenge a competency per the published deadline for the fall semester will result in a course grade reduction of one-half grade lower (0.5 point) on the final grade (see preceding grading scale).

Failure to challenge AND pass both competencies prior to the end of the spring semester will result in a No Report grade, a course grade reduction of one (1.0 point) grade (in addition to any grade reduction from failing to challenge a competency in the first semester), and the student will be required to remediate.

A Patient Management and Professionalism Clinical Competency (PMPCC) examination is conducted concurrently with each operative dentistry competency examination, and the PMPCC competency must also be passed in order to successfully complete the operative dentistry competency. The PMPCC evaluation form is found in [Appendix A-3](#).

Failure to complete the minimum clinical experiences by the end of the course will result in a detailed review of the student's progress by the course director and the Clinical Progress Committee. That review may lead to a No Report (NR) grade for the course, a grade reduction, and a subsequent customized remediation program (as determined by the course director).

Any indirect (laboratory processed) procedures must be completed within 35 calendar days (5 weeks) from the date of the final impression in order to receive full credit and grade. This time span includes weekends, holiday breaks, externship rotations, etc. If not completed within this time, there will be a grade reduction and possible loss of minimal essential experience credit for the procedure.

Also, faculty may assess patient management and professionalism at any time for exemplary or less than satisfactory performance. That evaluation would occur through a Student Patient Management and Professionalism Exception Report, which goes to the Executive Associate Dean. If that happens, the student will be notified of the report.

A-2 CLASS II RESTORATION COMPETENCY DETAILS

Recommended prerequisite experiences: four (4) Class II permanent (not build-up) restorations. The student must work independently and pass each step of the competency. Intervention by the faculty to ensure a successful outcome results in a "no pass."

The tooth must be in occlusion, have at least one (1) proximal surface to be restored for contact and have evidence of primary or secondary interproximal caries, or a defective margin. The restoration may be a new or a replacement restoration.

Steps which are evaluated:

1. Rubber dam placement
2. Preparation before liner(s)/base(s) - if indicated
3. Preparation after liner(s)/base(s) - if indicated
4. Caries removal
5. Restoration placement

In addition, Patient Management and Professionalism is evaluated (complete the Patient Management and Professionalism Evaluation Form) and must also be successfully passed to complete the Class II Competency requirement.

The criteria for evaluating competency performance by steps are as published in this manual. Steps 1-5 must be completed in a 4-hour clinic session.

In order to receive credit for the Competency Procedure, BOTH the completed yellow procedure card, the completed Class II Restoration Competency form, and the completed Patient Management and Professionalism Competency Evaluation must be submitted simultaneously for processing.

COMPOSITE RESIN CLASS III RESTORATION COMPETENCY DETAILS

Recommended prerequisite experiences: four (4) Class III composite restorations. The student must work independently and pass each step of the competency. Intervention by the faculty to ensure a successful outcome results in a "no pass."

(the remaining details are similar to that for the Class II competency, above)

**PATIENT MANAGEMENT AND PROFESSIONALISM
COMPETENCY EVALUATION: DENT 546/595/650/697**

Student Name _____

Date _____

COURSE _____

Class (Circle): D-2 D-3 D-4

Required patient information: Age: Gender: M F Special Needs:
(Explain) _____

Race/Ethnicity: White, Black, Hispanic, Native/Alaskan American, Asian, Pacific/Hawaiian Islander, Middle Eastern

Competency Procedure (by Name) _____

Competencies A, B, E, H, K CODA Standards: 2-16, 2-17, 2-20, 2-23e, 5-8,

Category	Student Self Assessment	Faculty Evaluation			Faculty: If deficiencies please comment
	X if Acceptable	Honors/ Acceptable PASS	Correctable Deficiencies NO PASS	Major Deficiencies NO PASS	
Documentation of history update, Diagnosis/Tr Plan Std 2-17					
Documentation of Informed Consent St'd 2-17					
Pain Management (if appropriate) Standard 2-23e					
Confidentiality of Patient Records Standard 2-17					
Accurate / complete Daily Treatment Entry Standard 2-17					
Infection Control St'd 2-17, 5-8					
Handling of Infectious Waste St'ds 2-17. 5-8					
Patient Management & Communications St'ds 2-16, 2-17					
Professionalism Standard 2-20					

Please place x in appropriate boxes above

Faculty Signature _____ **PRINT**
NAME _____

Comments: STUDENTS MUST DEMONSTRATE COMPETENCE IN ALL CATEGORIES IN ORDER TO

A-5 RATING SYSTEM FOR EVALUATION OF PREPARED CAVITIES

RATING: 5, 4, or 3 = Pass 2, 1 = No Pass		OPERATIONAL EXPLANATION
5	Meets all standards of excellence	The prepared cavity is of excellent quality in biological and mechanical design factors.
4	Satisfactory with minor correction(s)	The prepared cavity is of satisfactory quality. <u>Minor</u> correction of one or more features which deviate from ideal conditions will enhance quality. The deviations will not damage the patient nor shorten the expected life of the restoration.
3	Satisfactory with moderate correction(s) (minimally acceptable)	The prepared cavity is of serviceable quality. <u>Moderate</u> correction of one or more features which deviate from ideal conditions will enhance quality. The deviations will not damage the patient nor significantly shorten the expected life of the restoration.
UNSATISFACTORY		
2	Major correction(s) required (marginally substandard)	The prepared cavity is <u>not</u> of acceptable quality. Future health of the tooth and/or function of the restoration is, or would be, in jeopardy.
1	Fundamental concepts <u>not</u> demonstrated (critical deficiency)	The prepared cavity is <u>not</u> of acceptable quality. Damage to the tooth tissues has now occurred, or failure of restorative procedure is inevitable.

RATING SYSTEM FOR EVALUATION OF RESTORATIONS

RATING: 5, 4, or 3 = Pass 2, 1 = No Pass		OPERATIONAL EXPLANATION
5	Meets all standards of excellence	The restoration is of <u>excellent</u> quality. It restores the tooth to health, form, and function, and is expected to protect the surrounding tissue.
4	Satisfactory with minor correction(s)	The restoration is of <u>satisfactory</u> quality, but exhibits one or more features which deviate from ideal conditions. The deviations will not damage the patient nor shorten the expected life of the restoration.
3	Satisfactory with moderate correction(s) (minimally acceptable)	The restoration is of <u>serviceable</u> quality. Moderate correction of one or more features which deviate from ideal conditions will enhance quality. The deviations will not damage the patient nor significantly shorten the expected life of the restoration.
UNSATISFACTORY		
2	Major correction(s) required (marginally substandard)	The restoration is <u>not</u> of acceptable quality. Future damage to the tooth and/or the surrounding tissues is likely to occur.
1	Fundamental concepts <u>not</u> demonstrated (critical deficiency)	Damage to the tooth, restoration and/or surrounding tissues has now occurred, or early failure of the restoration is inevitable.

A-6

 EVALUATION CRITERIA FOR AMALGAM PREPARATIONS

RATING	Margins/Finish	Outline/Extension	Retention	Resistance
5	-Walls and margins smooth and continuous -Cavity well-defined -No debris or moisture in prep	Appropriate extensions for: -Removal of uncoalesced pits or fissures, decalcification, and caries -Visualization of margins -Condensation and finishing of amalgam -Adjacent teeth untouched -Isthmus 1-2 mm	-Conspicuous visual and tactile retention features -Walls have proper angulation 90°	-Depth optimum for bulk of filling material -1.5-2mm -Enamel supported by dentin -Line angles rounded but definite
4	-Slight roughness of cavity walls or margins -Slight lack of cavity definition	-Slightly overextended or under extended ≤ 0.5 mm -Isthmus slightly >2 mm	-Slightly lacking or excessive in retention -Walls 85°-95°	-Axial or pulpal depth slightly shallow <1.5 or deep > 2.0 mm -Enamel slightly unsupported
3	-Moderate roughness of cavity walls or margins -Moderate lack of cavity definition -Some debris present	-Moderately over-extended or under- extended <1.0 mm -Isthmus >2 mm, <2.5 mm -Adjacent teeth roughened but not notched	-Moderately lacking or excessive in retention -Walls 80°-100°	-Axial or pulpal depth moderately shallow <1.25 mm or deep 2-2.5 mm -Sharp line angles -Enamel moderately unsupported
UNSATISFACTORY				
2	-Decided roughness -Much debris present	-Decidedly overextended or under-extended >1.0 mm -Decalcification not included -Isthmus >2.5 mm or <1.0 mm -Minor damage to adjacent teeth (notched) or soft tissues	-Retention lacking in one or more areas -Decidedly excessive -Signification deviation from 90° (>20°)	-Axial or pulpal depth decidedly shallow or deep >3.0 mm
1	-Grossly rough -Cavity devoid of form	-Grossly overextended >2mm -Adjacent teeth or soft tissues mutilated -Grossly underextended in contact with adjacent tooth -Isthmus > 3.0 mm -Damage to adjacent teeth which required restoration	-Grossly excessive -Grossly over cut	-Grossly too deep -Enamel grossly unsupported -Unnecessary pulp exposure

EVALUATION CRITERIA FOR AMALGAM RESTORATIONS

RATING	Surface/Esthetics	Occlusal Anatomy/Marginal Integrity	Axial Contours. Embrasures and Function	Proximal Contacts
5	<ul style="list-style-type: none"> - Surface uniformly smooth and finished - Smooth internal surface (casting) * - Acceptable shape, surface 	<ul style="list-style-type: none"> -Tooth restoration junction scarcely detectable or not detectable 	<ul style="list-style-type: none"> -Functional contact and anatomy restored -No prematurities or interferences 	<ul style="list-style-type: none"> -Proper axial contour and proximal contact restored -Embrasure form restored
4	<ul style="list-style-type: none"> - Slightly rough or lacking finish - Internal slightly irregular (casting) * - Needs minor reshaping 	<ul style="list-style-type: none"> -Slightly detectable margins -Restoration margins slightly: <ol style="list-style-type: none"> 1) under extended 2) overextended 	<ul style="list-style-type: none"> -Slightly under contoured anatomical form -Slightly over contoured anatomical form -Occlusal contact slightly light or heavy relative to adjacent teeth 	<ul style="list-style-type: none"> -Slightly under contoured axial form - line angles flattened -Slightly over contoured axial form - line angles over accentuated -Proximal contact slightly light or heavy
3	<ul style="list-style-type: none"> - Moderately rough finish; minor pitting or porosity - Internal moderately irregular (casting) * - Needs moderate reshaping 	<ul style="list-style-type: none"> -Moderately detectable margins -Restoration margins moderately: <ol style="list-style-type: none"> 1) under extended 2) overextended 	<ul style="list-style-type: none"> -Moderately under-contoured anatomical form (flat) -Moderately over-contoured anatomical form -Occlusal contact moderately light or heavy relative to adjacent teeth 	<ul style="list-style-type: none"> -Moderately under contoured axial form -Moderately over contoured axial form -Proximal contact visually closed but moderately light -Floss shreds in proximal contact
UNSATISFACTORY				
2	<ul style="list-style-type: none"> - Pitted or decidedly rough surface 	<ul style="list-style-type: none"> -Decidedly detectable margins -Restoration margins decidedly: <ol style="list-style-type: none"> 1) under extended 2) overextended 	<ul style="list-style-type: none"> -Decidedly under contoured anatomical form -Decidedly over contoured anatomical form -Decidedly light or heavy occlusal contacts 	<ul style="list-style-type: none"> -Decidedly under-contoured axial form (large embrasures) -Decidedly over-contoured axial form (small embrasures) -Floss will not pass through contact
1	<ul style="list-style-type: none"> -Grossly pitted or rough surface -Gross damage to adjacent tissues or tooth structure from adjusting or finishing 	<ul style="list-style-type: none"> -Gross over finish -Gross overhang -Open margin; can be penetrated with explorer 	<ul style="list-style-type: none"> -Traumatic occlusion -No occlusal contact when contact is possible 	<ul style="list-style-type: none"> -Grossly under contoured axial surfaces -Grossly over contoured axial surfaces (tissue impingement) -Open proximal contact

- a. Exams-multiple choice, short answer
- b. Quizzes-multiple choice, short answer, in class clickers
- c. timed exercises- rubber dam, matrix, preparation and restorations
 - i. criteria provided, self-assessment included in grade
- d. lab projects- preparation/restorations during lab time
 - i. 100,95,85,75,65
- e. Practicals- timed designated procedure on manikin
 - i. 100, 95,85,75,65
 - ii. Less than 70 requires remediation

ii. Are students evaluated (graded) on their daily clinical procedures?

YES: Colorado, Creighton, Iowa, Nebraska, SIU

1. If so, what metrics or methods are used?

Colorado: see “i”

Creighton: see above

Iowa: For the clinical courses, students are graded on 6 domains (comprehensive diagnosis/ tx plan presentation and evidence based/self-assessment, ethics and professionalism/clinical management/clinical skills.

Marquette: No

UMKC: Mini-practical (restoration OR prep in 1 hour, evaluated that day)

Nebraska: Criteria are similar to CRDTS. See above guidelines

SIU: Yes, scale of 0-5. Based on one on one evaluation from instructor assigned to chair, considering progression/effort and feedback

iii. Provide Rubrics if available.

Iowa:

DAILY/COMPETENCY OPERATIVE LEARNING GUIDE AND ASSESSMENT
Operative Dentistry Clinic III (8370)

Student Self Evaluation Questions:

- 1. What went well in the appointment?
- 2. What challenges were encountered during the appointment?
- 3. What would you do different to overcome the challenges next time?

Operative Domain Description Criteria and Assessment– Operative Dentistry III (8370)

1. Comprehensive Diagnosis: Information Gathering & understanding of:

Chief Complaint/Patient Goals
Medical/Dental/Psychosocial History
Clinical Examination
Radiographic Examination
Diagnostic Aids
Caries Risk Assessment:
• Evaluation of Findings and Patient Risk
• Patient Behavioral Management
• Clinical Management of Oral Environment
• Monitoring and Outcomes of Interventions
Consultation/Referral
Evaluation of Findings
Diagnosis/Problems
Modifiers and Goals
Disease Control/Prevention
Rehabilitation Phase
Maintenance/Monitoring
Sequencing of Treatment

2. TX plan Execution, Patient Presentation and Integration of EBD

Selected Treatment Plan with Evidence
Prognosis
Behavior Guidelines
Appointment Plan
Evaluation of Results/Maintenance
Cost Analysis
Treatment Objectives
Treatment Plan(s)
• Systematic Phase
• Acute/Emergency Phase
Informed Decision (Consent/Refusal)
Asking Answerable Questions
Searching For Best Evidence
Critically Appraising Evidence
Applying Evidence/Making a Decision
Evaluating The Outcome/Your Performance

3. Independence/ Self-evaluation

Identify What Was Done Well
Identify Improvement
Oriented to Outcomes
Concise
Knowledge/Technical/Critical Thinking
Compare with Faculty Assessment

4. Professional and Ethical Behavior

Patient Autonomy (Self-Governance)
Non-maleficence (Do No Harm)
Beneficence (Do Good)
Justice (Fairness)
Veracity (Truthfulness)

5. Clinical Management

Start On Time
Clinic Dress/Personal Hygiene
Infection Control
Organization of Unit
Finish On Time
(Unexpected Events)
Record Management/HIPAA




6. Clinical Performance/ Skills

CLINICAL PROCEDURES
Anesthesia
Isolation
TOOTH PREPARATION
Outline Form/Access
Caries Removal
Internal Form
Finish/Retention Bevel
TOOTH RESTORATION
Cavity Liner
Margin and Surface Finish
Anatomy, Contour and Shade
Occlusion
Proximal Contacts and Embrasures
Adjacent Tooth Tissue and Restoration

Operative Domain Assessment	S = Surpasses Expectations	M = Met Expectations	N = Needs Improvement
1. Comprehensive Diagnosis	<p>*Outstanding and complete diagnostic information gathering related to chief complaint, medical history and implications, clinical and radiographic examination, diagnostic aids; caries risk assessment and significant factors.</p> <p>*Outstanding integration of collected diagnostic data related to risk assessment and prognosis.</p>	<p>*Acceptable diagnostic information gathering related to chief complaint, medical history and implications, clinical and radiographic examination, diagnostic aids; caries risk assessment and significant factors. No critical information missing but some instructor guidance was necessary.</p> <p>*Acceptable integration of collected diagnostic data related to risk assessment and prognosis.</p>	<p>*Information gathering below expectations in at least one critical aspect.</p> <p>*Lack of understanding and integration of collected diagnostic data related to risk assessment and prognosis.</p>
2. Patient Presentation TX Plan Execution, and Integration of EBD	<p>*Outstanding review of comprehensive planned tx sequence; outstanding tx plan presentation and communication.</p> <p>*Completely prepared not only for planned procedures, but for contingencies as well.</p> <p>*Demonstrated outstanding conceptual understanding of planned procedures; all necessary instruments and materials ready.</p> <p>*Demonstrated outstanding conceptual understanding and particularly insightful application of relevant scientific evidence.</p>	<p>* Logical review of comprehensive planned tx sequence; acceptable tx plan presentation and communication.</p> <p>*Demonstrated conceptual understanding of planned procedures; all necessary instruments and materials ready.</p> <p>*Demonstrated conceptual understanding and application of relevant scientific evidence.</p>	<p>* Inadequate or inappropriate understanding of comprehensive planned tx sequence in at least one aspect, OR failure to communicate and/or review treatment plan.</p> <p>*Lacked some conceptual understanding of planned procedures and/or some necessary instruments or materials not ready.</p> <p>*Failed to demonstrate conceptual understanding and application of relevant scientific evidence.</p>
3. Independence/ Self-evaluation	<p>*Outstanding self-evaluation; student performed procedures properly with little or no assistance from faculty.</p> <p>*In communication with faculty demonstrated clear and independent understanding of aspects of care.</p>	<p>*Acceptable self-evaluation; student performed procedures with appropriate assistance from faculty; sought opinion of faculty when appropriate.</p>	<p>*Student unnecessarily dependent on faculty assistance and/or failed to seek opinion of faculty when appropriate; without faculty input and/or correction, a disease state remains or is established or future failure is imminent.</p>
4. Professional and Ethical Behavior	<p>*Student demonstrated particularly outstanding professionalism and ethical behavior.</p> <p>*Student's behavior could be a model for colleagues.</p>	<p>*Student demonstrated appropriate professionalism and ethical behavior.</p>	<p>*Student demonstrated unprofessional or unethical behavior at some point in clinic session; treatment was inconsistent with the patient's welfare.</p>
5. Clinical Management	<p>* Outstanding in all aspects of record management; time utilization, asepsis, pain control, etc.</p>	<p>*Acceptable in all aspects of record management; time utilization, asepsis, pain control, etc.</p>	<p>*Record management; time utilization, asepsis, pain control, etc., below expectations in at least one aspect.</p>
6. Clinical Performance/ Skills	<p>*Outstanding technical skills demonstrated at most steps of procedures; exceeded expectations for this stage of education.</p> <p>*No instructor guidance or intervention was necessary during anesthesia, isolation, tooth preparation, caries removal and tooth restoration. The outcome was the best possible and could not be improved upon.</p>	<p>*Acceptable technical skills demonstrated at each step of procedures; met expectations for this stage of education.</p> <p>* Some instruction guidance or intervention. Acceptable clinical outcome during anesthesia, isolation, tooth preparation, caries removal and/or tooth restoration. Some room for improvement could still be made in efficacy and/or independence.</p>	<p>*Failed to demonstrate acceptable technical skills at some step(s) of procedures; failed to meet expectations for this stage of education.</p> <p>* Instructor guidance, intervention was needed for the patient welfare or repeated coaching was required. Procedure may require alteration due to student error which was avoidable. Independence and/or efficacy clearly deficient and requires definite improvement to be deemed competent.</p>

Minnesota: PRECLINIC. Preclinical Operative Dentistry encompasses three courses, each a semester long, and each divided into a lecture and a laboratory component. Grades in lecture are based on tests (quizzes, midterm, and final exams). Grades in lab are based on daily work (project) scores and practical exam scores. The proportion of the course grade that is dependent on the practical exams increases with each course (I: 50%, II: 75%, III: 100%).

Detailed criterion-referenced rubrics are employed for evaluation of each preparation and restoration. These rubrics provide an instrument for grading, a vehicle for providing detailed feedback, and an opportunity for development of self-evaluation skills. Each criterion on these evaluation forms provides the opportunity for a 3-tiered evaluation: N, S, M.

Rating	N	S	M
Definition	No deviation from ideal (No modification necessary)	Slight deviation from ideal (Slight modification necessary)	Moderate or extreme deviation from ideal (Moderate to extreme modification necessary)
Range	Range of Excellence	Range of Acceptability	Clinically unacceptable
Description	Quality is satisfactory & is expected to protect the tooth & surrounding tissue	Quality is acceptable but exhibits one or more features which deviate from ideal	Quality is not acceptable & future damage to the tooth or surrounding tissues is likely
Numerical Score	2	1	0
Photographic sample			

CLINIC. Students perform Operative Dentistry procedures on patients in clinic in their Junior and Senior years. For the purposes of grading, this is divided into two courses: one for each year. Student work is graded with every patient encounter. Grades used to be entered from clinical paper forms by support staff into a web-based Divisional database. Beginning this semester, Operative Dentistry in clinic is graded chairside in AxiUm (electronic health record software with grading module). Because of this switch, the grading algorithm has changed.

Grades for Operative Clinic courses were based on the following parameters measured within the grading period:

1. Challenge Factor,
2. Performance Factor,
3. Instructor Intervention Level, and
4. Efficiency

The first three parameters were evaluated on a 3-point scale. Efficiency was a measure derived from the ADA procedure code. The mean of each factor accounted for 10% of the final score, with the exception of the *performance assessment*, which comprised 70%. The assignment of letter grade to the final score depended on the following cutoffs: 70% or below was a C, for DDS 6441 (Juniors) 85% and above was an A, and for DDS 6442 (seniors) 88% and above was an A. Competency exam scores were weighted the same as other patient encounters.

The *Performance Factor* included more than the quality of the cavity preparation and restoration. It also included ancillary knowledge and skills, such as awareness of patient's medical conditions, professionalism, patient rapport, infection control, record keeping, isolation, anesthesia, etc.

The *Challenge Factor* was meant to modify the score for a particular encounter when a case was considered simple or when particular difficulties were associated with the case.

The *Instructor Intervention* level was employed mainly for those occasions where an instructor needed to take over some aspect of the restorative service. E.g., a student doing very high quality work who runs out of time at the end of the appointment might need the instructor to complete the procedure. The student would receive a high score for performance, but this would be offset by an elevated instructor intervention level.

The *Efficiency* score was based on the amount of work accomplished at each patient encounter. It was expressed in terms of average Session Equivalents/encounter. Student production, or quantitative measure of dentistry, was measured in Session Equivalents (SE's). Session Equivalents relate to how long a procedure should take a student clinician, on average, to accomplish. The expectation was that over two years of clinical activity an average of 1.0 SE will be earned per clinical session. The ratio of session equivalents to sessions was factored into the student's grade. Low productivity negatively affected this grade.

In AxiUm, grading of Operative Dentistry is completely different, because the previous system does not work with the AxiUm grading module. It was decided to evaluate a student's patient encounter at three evaluation points:

- 1) Preparation Completion (Preparation Quality Assessment)
 - 2) Restoration Completion (Restoration Quality Assessment)
 - 3) Patient Encounter Completion (Treatment Skills Assessment)
- Each of these three assessments is evaluated on a 5-point scale.

5 = exceptional and worthy of recognition

4 = excellent and high quality

3 = clinically acceptable quality

2 = clinically questionable quality

1 = clinically unacceptable result that will need correction if possible OR some fundamental knowledge or skill was not demonstrated

An expanded grading scale should help to stratify students better for grading, remediation, and awards. The final algorithm and grade cut offs have not yet been finalized.

V. Administration

a. Organizational Structure

i. What is the name of the major decision making body within your school?

Creighton: Executive Committee

Marquette: Administrative Council (and our Curriculum Committee wields influence)

Minnesota: Council of Chairs & Council of Faculty

Nebraska: Leadership Council

SIU: Executive council

1. Who sits on this Council, Committee, Board?

Colorado: Executive Committee: deans, chairs and program directors (GPR/ISP).

Creighton:

- Dean
- Associate Deans
- Department Chairs
- Senior Director of Finance
- Faculty Council President
- School Chaplain

Iowa: Tuesday morning admin group (Dean and Associate Deans, Clinic Director) followed by Thursday morning executive meeting (Deans, Directors, Heads of departments).

Marquette: Dean, Associate Dean, Department Chairs, etc.

Minnesota: The Council of Chairs is composed of the Chairs of the Departments, and the Dean who serves as chair. The Associate Deans serve as ex-officio, non-voting members. The Council of Faculty consists of all faculty.

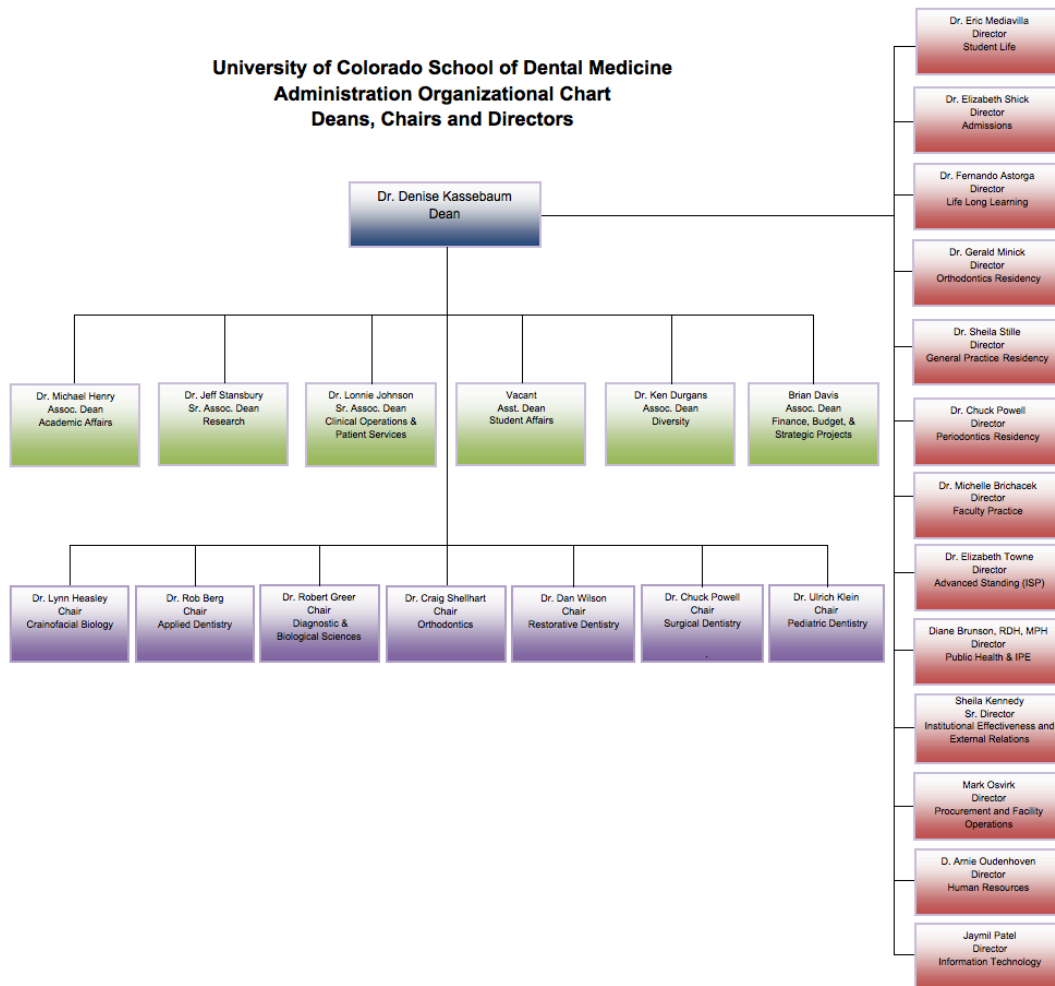
UMKC: Many committees with faculty representation, some with student representation, dean can accept or not and give her own ultimate decision

Nebraska: The Deans, Department Chairs, CE Director and the Information Systems Director.

SIU: Deans

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Colorado:



Creighton: Dean -1, Associate Deans – 4, Chairs – 8

Iowa: Dean -1, Associate Deans 7, 10 department heads; 5 Director level positions

Marquette: Deans:5 (Dean, Senior Associate Dean, Associate Dean for Academic Affairs, Associate Dean for Finance, Associate Dean of Research and Graduate Studies). Department Chairs:3 (General Dental Sciences, Developmental Sciences, Surgical Sciences)

Minnesota: Three Associate Deans: Research, Academic Affairs, and Clinical Affairs. 4 Departments each with a single Chair. Each Department consists of 4-6 Divisions/Programs—each headed by a Director.

UMKC: 5 associate deans; 7 department chairs (1 asst. chair), 2 directors- perio and hygiene, clinic divided into 3 teams (restorative and perio), additionally emergency, endo, pedo, OS, community dentistry departments.

Nebraska: 8 deans, 5 Department Chairs, 4 Section Heads in our department (these are unpaid positions) and 5 program directors (graduate programs)

SIU:

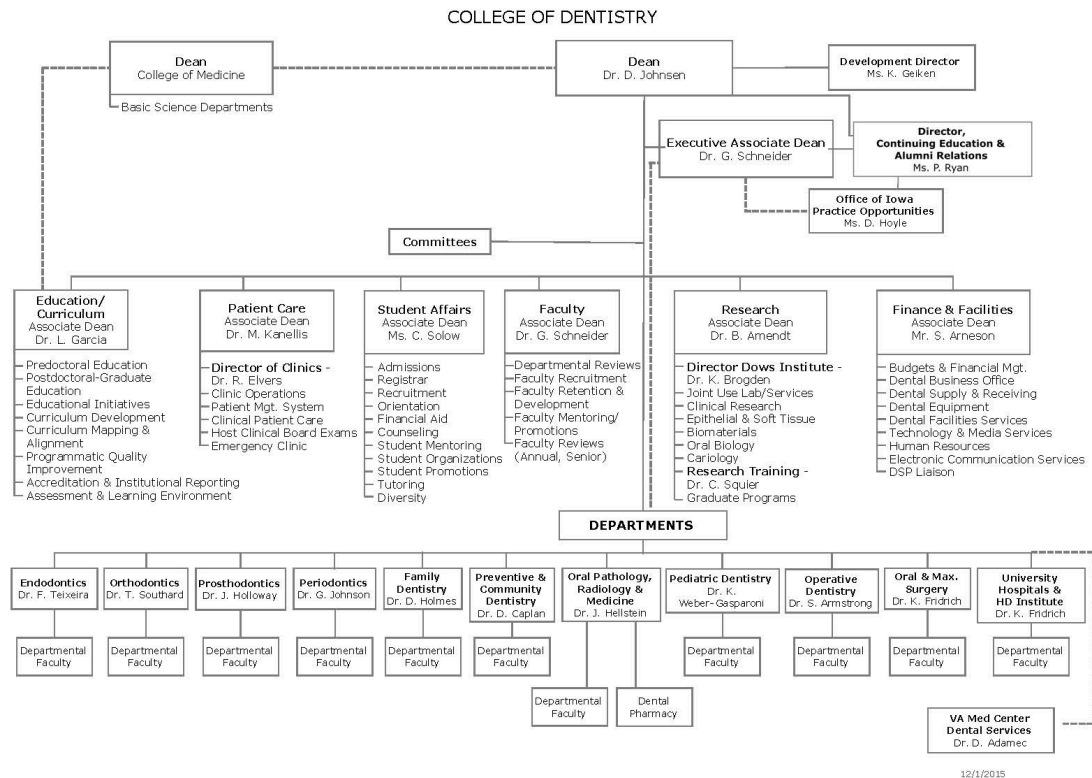
1. Dean, Associate Dean of Clinical Affairs, Associate Dean of Information Technology, Associate Dean of Academic Affairs, Dean of Admissions and Student Services
2. Chair of Restorative Department, Chair of Department of Applied Dental Medicine, Chair of Department of Growth and Development, Chair of Graduate Studies

3. Section Head of Endo, Diagnostic Sciences, Oral and Maxillofacial Surgery, Microbiology, Perio, Pharm, Physio, Anatomy, Behavioral Science, Community and Preventive, Practice Management, Ortho, Pedo, Dental Materials, Fixed Pros, Operative, Removable Pros., Radiology

4. Director of AEGD, Implant, Clinical Affairs, Curricular Affairs, Research

iii. Provide school organizational tree if available.

Iowa:

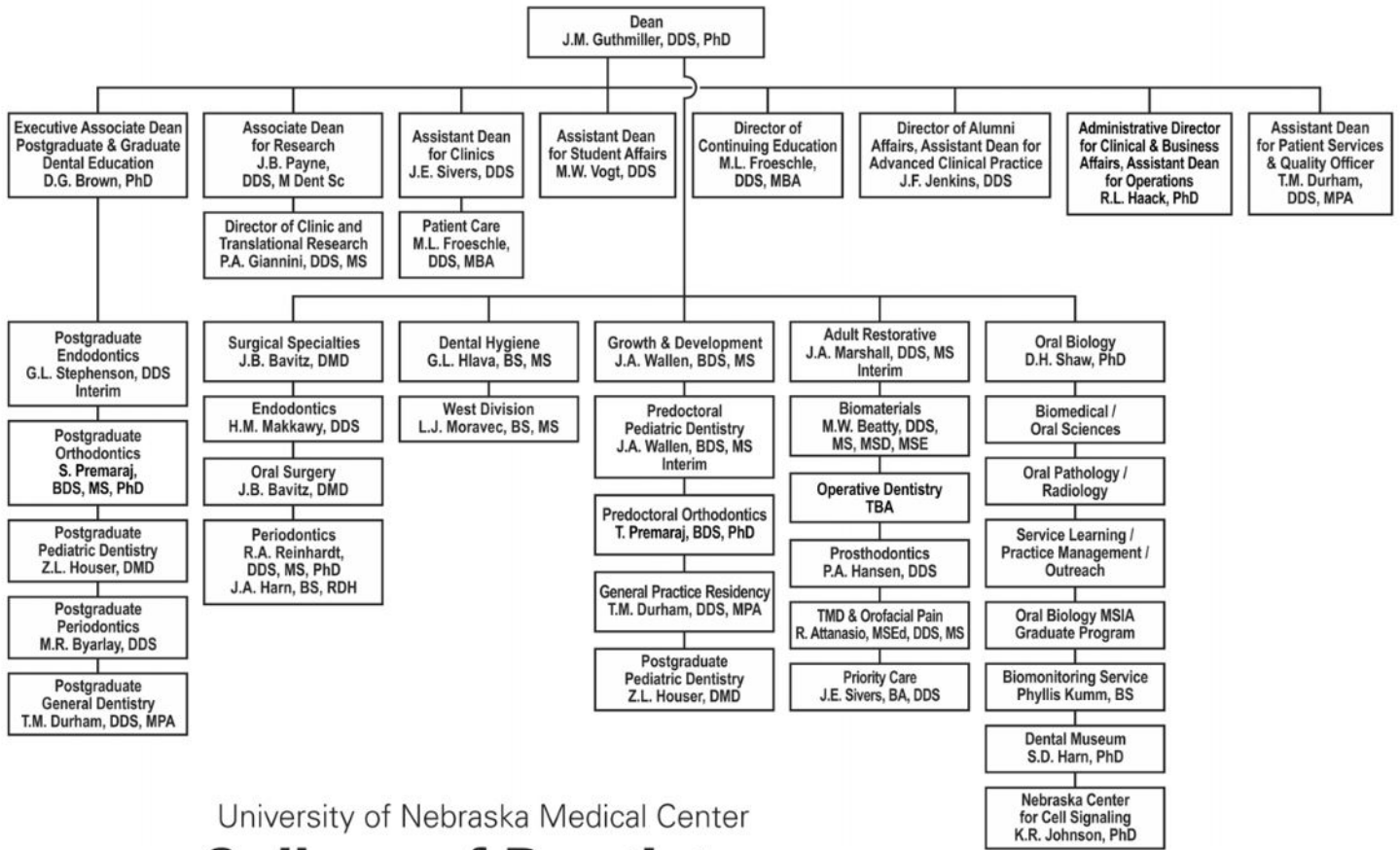


Minnesota:

1. Dean
2. Associate Dean for Research, Associate Dean for Academic Affairs, and Associate Dean for Clinical Affairs.
3. Primary Dental Care Department Chair
 - a. Comprehensive Care Division Director
 - b. Dental Hygiene Division Director
 - c. Dental Public Health Division Director
 - d. Dental Therapy Division Director
 - e. Outreach Division Director
 - f. Oral Health for Older Adults Program Director

4. Diagnostic & Biological Sciences Department Chair
 - a. Basic Sciences Division Director
 - b. Oral Medicine, Diagnosis & Radiology Division Director
 - c. Oral Pathology Division Director
 - d. TMD & Orofacial Pain Division Director
 - e. Institute for Molecular Virology Director
 - f. Minnesota Craniofacial Research Training Program Director
 - g. Oral Biology Graduate Program Director
5. Developmental & Surgical Sciences Department Chair
 - a. Oral & Maxillofacial Surgery Division Division Director
 - b. Orthodontics Division Director
 - c. Pediatric Dentistry Division Director
 - d. Periodontology Division Director
6. Restorative Sciences Department Chair
 - a. Biomaterials Division Director
 - b. Endodontics Division Director
 - c. Operative Dentistry Division Director
 - d. Prosthodontics Division Director

Nebraska:



University of Nebraska Medical Center
College of Dentistry
 Organizational Chart

KG1512_Flow

VI. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?

Colorado: No issues were reported.

Creighton: Not aware of any at this point.

Marquette: Yes

Nebraska: None of which I am aware.

1. ex...the use of patient photos on Facebook

Iowa: Yes

SIU: Yes

2. If so, provide examples.

Iowa: , Facebook posting - "I just finished my last patient, ...". No pics but used a first name and potentially identifiable given an unusual name.

Marquette: Students are often taking photos of patients and/or intraoral photographs with personal mobile phones. We have also had students who have posted these types of images to social websites.

Minnesota: No issues with patient photos or information, but some issues with pictures of students behaving in an unprofessional manner while outside of school or making comments about patients. We have also had some issues with Snapchat.

UMKC: Not social media, but sent out survey under guise of being from main campus (provost?) regarding dress code- seemed to bait controversy regarding dress code

SIU: The use of patient photos on Facebook. Student was put on probation, required to complete ethics training, took a test and wrote a paper

- ii. How do you inform the students of their professional responsibilities?

Colorado: The topic is covered during new student orientation. Also in Ethics course with 1st and 2nd year students.

Creighton: The students' professional responsibilities are outlined in the Code of Conduct that they sign each year. Starting this year, professionalism and social media use will be specifically added to the curriculum of CPD 111 (Interpersonal Relationships and Communication) for the freshman dental students. There will be interactive videos, scenarios, and small group discussion on this topic. Also reviewed will be cell phone usage, smart watches and other technology use in professional school, and what the students' responsibilities are in representing CUSOD on social media and as a professional student.

Iowa: In this case, HIPAA was violated so we used the policy and penalty grid developed by the COD. Students are informed of patient confidentiality responsibilities every year. We also talked about the use of social media at orientation this year and students were advised to "clean up" Facebook pics and postings.

Discipline Resulting from HIPAA Privacy Breaches at University of Iowa College of Dentistry

Infraction	Discipline
<p>Inadvertent access/disclosure of patient info</p> <ul style="list-style-type: none"> Email containing PHI sent internally to wrong recipient/dept. Rx errors – providing correct medication to patient but containing another patient’s info on the label or just dispensing a medication to the wrong patient Typing in wrong axiUm ID number and viewing wrong patient’s info. Mailing errors – including another patient’s documentation in a mailing to a patient. <p>Note: Inadvertent <i>internal</i> disclosures and unintentional accesses by an employee or student are not reported to “OCR” under the HITECH Act</p>	Verbal Reminder/Education
<p>Inappropriately accessed demographic/basic insurance info</p> <p>Note: No information in the patient’s axiUm record should be accessed for any non-health care related activity.</p>	5 Day Unpaid Suspension or Financial Penalty up to Five Days of Employment
<p>Inappropriately accessed a patient’s medical/dental info/documentation</p>	5 Day Unpaid Suspension or Financial Penalty up to 5 Days of Employment
<p>Password was compromised by sharing it and patient medical/dental information was accessed.</p> <p>Note: COD uses the tools available to determine if access was used by another provider for a legitimate purpose. However, per policy, all users are responsible for all activity that occurs under their user name.</p>	Varies depending on circumstances: Written Reprimand or Unpaid Leave/Suspension up to and Including Termination
<p>EHR access was left open and patient medical/dental information was accessed.</p> <p>Note: COD uses the tools available to determine if access was used by another provider for a legitimate purpose. However, per policy, all users are responsible for all activity that occurs under their user name.</p>	Varies depending on circumstances: Written Reprimand or Unpaid Leave/Suspension up to and Including Termination
<p>Inappropriately accessed medical/dental info/documentation of multiple patients.</p>	Recommend Termination Pursuant to University Policies and Procedures.
<p>Unauthorized and intentional disclosure of patient information to a 3rd party.</p>	Recommend Termination Pursuant to University Policies and Procedures.

Office of Clinic Administration – College of Dentistry – July 22, 2014

Marquette: Student Handbook which contains School policies, ADEA Code of Conduct, New Student Orientation. Reinforced at White Coat Ceremony, throughout all courses and within the ethics curriculum.

Minnesota: This is addressed in multiple sessions at orientation, the White Coat Ceremony, and in courses throughout the curriculum.

UMKC: Throughout curriculum including course first year and seminar 3rd year.

Nebraska: During the first 2 weeks of the D-1 year the students have a 2 – 4 hour orientation and student academic success program. Things such as Title 9, professionalism, wellness are introduced. These are reinforced during courses throughout their academic program.

SIU:

1. Orientation, first three days of class
2. Ethics course, first 9 weeks, culminates in white coat ceremony

iii. What specific rules/guidelines do you have in place?

Colorado: 1. Students read the ADA Code of Ethics. They then learn the 8-step model for ethical decision making and in step 7 (Justify your decision) they have to refer to the code of ethics. In other words, they can't just make the decision on an ethical dilemma based on their gut feelings.

2. Students learn the terms beneficence, maleficence, autonomy, and veracity in terms of professionalism

3. Students understand Conflict of interest and knowing CU's policy on COI is one session

4. Informed consent and who can give/is able to give informed consent is presented (adolescents, seniors with dementia, etc)

Creighton:

- CUSOD Code of Conduct
- CU Policy and Standard on Fair, Responsible, and Acceptable Use of Electronic Resources
- CUSOD Dental Informatics and IT Information Policy

Iowa: Rules and guidelines depend on the infraction. In the above example, HIPAA policy kicked in. The Honor Code also contains guidelines related to social media and if there are infractions, CAPP would weigh in and recommend action depending on the infraction.

Discipline Resulting from HIPAA Privacy Breaches at University of Iowa College of Dentistry

Infraction	Discipline
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<p>Unauthorized and intentional disclosure of patient information to a 3rd party.</p>	Recommend Termination Pursuant to University Policies and Procedures.

Office of Clinic Administration – College of Dentistry – July 22, 2014

Marquette: The “list” seems to keep growing as new “challenges” are discovered. These are contained within our Student Handbook.

Minnesota: University Code of Conduct, School of Dentistry Code of Conduct.

UMKC: Each class writes their own code of ethics, present it at white coat ceremony, and it is posted in clinic with student signatures.

Nebraska:

SOCIAL MEDIA GUIDELINES

All UNMC students are expected to abide by the UNMC Code of Conduct and to behave in a manner consistent with professional standards. Below are guidelines for interpretation of the Code of Conduct in the context of the use of social media.

Topic	Content
Personal Material on Social Media	Students are entitled to enjoy an active social life and free speech, but remember that if put online, behavior once thought of as 'youthful exuberance' is available forever. There is a mistaken belief that content which has been deleted from a site is no longer accessible, but these postings may be viewable by licensing boards or future employers. Preventing friends or family from posting images or information about you may be difficult, but make it a point to tell them about your professional role and explain expectations regarding social media.
	Social media can blur the boundary between an individual's public and professional life. Always remember – once something is digital, it is forever!
Patient Cases, Images & Research	CMS (Medicare) reg. 140-2 requires that all sensitive information meet encryption standards during transmission while HIPAA requires that the electronic devices use unique ID's and be password protected. Be sure that all mobile devices used to store or communicate patient information, images etc. cannot be accessed if misplaced or stolen. Protect the information you store on all USB's, mobile phones, tablets and other devices with encryption.
	When uploading unusual cases, even when the files are stripped of identifying information, the individual may be identified because the case is so "unusual" and because the social media application gives information like your hometown and where you work. Consideration should also be given to how such comments and posts reflect on your profession and the potential impact it could have on the public's trust.
	Be aware that standards of patient privacy and confidentiality must be maintained in all environments, including social media environments. In addition to the personal consequences, significant financial consequences to your institution, such as significant fines and restriction from receipt of federal funds may exist. Many federal regulations and agencies are involved in privacy and confidentiality (HIPAA, CMS, DHHS, etc.).
	Ensure the content you are posting or sending electronically is appropriate for the audience, the venue and social media site where it is being posted.
	Do not use social media for subject recruitment and Informed Consent without IRB approval. Many social media sites share information with marketers and other sites. You give them permission when you "accept" the terms and conditions for using the site or software
Social Media Privacy Settings for Personal and Professional Use	Some people do keep separate social media profiles for work and personal life. This is important when you have a very public job. Remember that 'private' settings may not necessarily make every message private or exclusive. These private pages should still reflect your professional role positively.
	Maintain a healthy skepticism and be aware of the limits of social media privacy settings. Assume the terms, conditions and settings can be changed without notification and that privacy settings may be compromised or breached by hackers.
Social Media, Email Both Personal and Professional	Email can sometimes be a challenge. Only use your work email address for work related activities. Set up a different email account for personal use. If the e mail is highly confidential, consider the use of email filters that allow only those on your "safe" list to send or forward you emails. Use systems that require any unknown sender to first apply and allow you to accept or decline any email address request.
	Be conscious of your social media image and take ownership of your social media activities. Ask yourself, would my family want to see this? Also, follow the professional regulatory and ethical standards governing your profession.
Copyright Violations	If you post something, remember to consider the copyright and intellectual property rights of others and the university. If you have questions about copyright, contact the UNMC Library (http://www.unmc.edu/library/).
UNMC Policies	Be careful that your actions or comments on social media sites do not violate any university policies or professional codes of conduct required for future licensure. Be mindful of the mission statements of your future professional organizations and the impact for your actions as you plan for your future.
	Do not post informal, personal or derogatory comments about patients, colleagues, peers or employers on social media forums.

SIU:

1. Standardized syllabus format provides "contract" for each course and Student Interactive Learning Progress System (SILPS) document
2. Clinical manual provides patient related rules and guidelines

Regional Meeting Report Form

Region: Midwest

Host University, Address, and Dates of 2016 Regional Meeting:

Host University	Address	Dates of Meeting
University of Iowa	Operative Dentistry S244 Dental Science Building, Iowa City, IA 52242	September 22-23, 2016

Chairperson and Contact Information for 2016 Regional Meeting:

Chairperson	University/Address	Phone/email
Dr. Steve Armstrong	S244A Dental Science Building S, Iowa City, IA 52242	319-335-7211 steven- armstrong@uiowa.edu

List of Attendees: (Please complete CODE Regional Meeting Attendees Form on the following page)

Contact Person, Host University, and Dates of 2017 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting
Melynda Meredith 816-679-7186 meredithmm@umkc.edu Lance Godley 239-398-1534 godleyl@umkc.edu	UMKC	September 21 and 22, 2017

Regional Meeting Attendee's Form

Name	School	E-mail address
Dr. Ana Elashvili	University of Colorado/Denver	Ana.Elashvili@ucdenver.edu
Dr. Scott Shaddy	Creighton University	shaddy@creighton.edu
Dr. Jenn Hasslen	Creighton University	jennhasslen@creighton.edu
Dr. Steve Armstrong	University of Iowa	steven-armstrong@uiowa.edu
Dr. Deb Cobb	University of Iowa	deborah-cobb@uiowa.edu
Dr. Jerry Denehy	University of Iowa	gerald-denehy@uiowa.edu
Dr. Sandra Guzman-Armstrong	University of Iowa	sandra-guzman-armstrong@uiowa.edu
Dr. Marcela Hernandez	University of Iowa	marcela-hernandez@uiowa.edu
Dr. Aditi Jain*	University of Iowa	aditi-jain@uiowa.edu
Dr. Justine Kolker	University of Iowa	justine-kolker@uiowa.edu
Dr. Erica Teixeira	University of Iowa	erica-teixeira@uiowa.edu
Dr. A. Patrick Longo	Marquette University	alfred.longo@marquette.edu
Dr. Gary Hildebrandt	University of Minnesota	hilde014@umn.edu
Dr. Melynda Meredith	University of Missouri/Kansas City	meredithmm@umkc.edu
Dr. Lance Godley	University of Missouri/Kansas City	godleyl@umkc.edu
Dr. William Johnson	University of Nebraska	wwjohnson@unmc.edu
Dr. Christa Hopp	Southern Illinois University	chopp@siue.edu
Dr. Joe Sokolowski	Southern Illinois University	jsokolo@siue.edu

*Iowa CODE representative for 2017

Please return all completed enclosures to:

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director

Associate Professor and Chair
Department of General Dental Sciences
Marquette University School of Dentistry
1801 W. Wisconsin Ave.
Rm 336C
Milwaukee, WI 53233

414.288.5409
gary.stafford@mu.edu

Deadline for return: 30 days post-meeting

Please send the requested documents via email with attachments

Minnesota:

ⁱ Bratthall D, Hänsel-Petersson G, Sundberg H. Reasons for the caries decline: what do the experts believe? *Eur J Oral Sci.* 1996 Aug;104(4 (Pt 2)):416-22; discussion 423-5, 430-2.

ⁱⁱ Marinho VCC, Higgins JPT, Logan S, Sheiham A. Topical fluoride (toothpaste, mouth rinses, gels or varnishes) for preventing dental caries in children and adolescents. *Cochrane Database of Systematic Reviews* 2003, Issue 4, Art. No.: CD002782.

ⁱⁱⁱ Adair SM, Bowen WH, Burt BA, Kumar JV, Levy SM, Pendrys DG, Rozier RG, Selwitz RH, Stamm JW, Stookey GK, Whitford GM. Recommendations for using fluoride to prevent and control dental caries in the United States. *Centers for Disease Control and Prevention. MMWR Recomm Rep.* 2001 Aug 17;50(RR-14):1-42.

^{iv} Twetman S, Axelsson S, Dahlgren H, Holm AK, Kallestål C, Lagerlöf F, et al. Caries-preventing effect of fluoride toothpaste: a systematic review. *Acta Odontol Scand* 2003; 61:347-55.

^v Alanen P, Holsti ML, Pienihakkinen K. Sealants and xylitol chewing gum are equal in caries prevention. *Acta Odontol Scand* 2000;58:279-284.

^{vi} Hayes C: The effect of non-cariogenic sweeteners on the prevention of dental caries: a review of the evidence. *J Dent Educ* 2001; 65:1106-1109.

^{vii} Mäkinen KK, Bennett CA, Hujoel PP, Isokangas PJ, Isotupa KP, Pape HR Jr, Mäkinen PL. Xylitol chewing gums and caries rates: a 40-month cohort study. *J Dent Res* 1995a;74:1904-1913

^{viii} Mäkinen KK, Mäkinen P-L, Pape Jr HR, Allen P, Bennett CA, Isokangas PJ, Isotupa KP. Stabilisation of rampant caries: polyol gums and arrest of dentine caries in two long-term cohort studies in young subjects. *Int Dent J* 1995b;45:93-107

^{ix} Milgrom P, Ly KA, Roberts MC, Rothen M, Mueller G, Yamaguchi DK. Mutans streptococci dose response to xylitol chewing gum. *J Dent Res* 2006; 85:177-81.

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- xii Nyvad B, Fejerskov O. Active root surface caries converted into inactive caries as a response to oral hygiene. *Scand J Dent Res*. 1986 Jun;94(3):281-4.
- xiii DePaola PF. The benefits of high-potency fluoride dentifrices. *Compend Contin Educ Dent*. 1997;18(2 Spec No):44-50
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- xv Moberg Sköld U, Petersson LG, Lith A, Birkhed D. Effect of school-based fluoride varnish programmes on approximal caries in adolescents from different caries risk areas. *Caries Res*. 2005 Jul-Aug;39(4):273-9.
- xvi Marinho VC, Higgins JP, Sheiham A, Logan S. Combinations of topical fluoride for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev*. 2004;(1):CD002781.
- xvii Vale GC, Tabchoury CPM, Del Bel Cury AA, Tenuta LMA, ten Cate JM, Cury JA. APF and dentifrice effect on root dentin demineralization and biofilm. *J Dent Res* 2011; 90:77-81.
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- xx Castellano JB, Donly KJ. Potential remineralization of demineralized enamel after application of fluoride varnish. *Am J Dent* . 2004 Dec;17(6):462-4.
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- xxiv Maltz M, Zickert I, Krasse B: Effect of intensive treatment with chlorhexidine on number of *Streptococcus mutans* in saliva. *Scand J Dent Res* 1981;89:445-449.
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- xxix Schaeken MJ, de Jong MH, Franken HC, van der Hoeven JS. Effects of highly concentrated stannous fluoride and chlorhexidine regimens on human dental plaque flora. J Dent Res 1986;65:57-61.
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School of Dentistry
The University of Mississippi Medical Center



Consortium of Operative Dentistry (CODE)



**University of Mississippi School of Dentistry
CODE Meeting
November 2-4, 2016**

Wednesday, November 2, 2016

6:00 p.m. Dinner at Cock of the Walk

Thursday, November 3, 2016

7:30-8:30 a.m. Attendee's arrival/ Breakfast
8:30 -8:45 a.m. Welcome from Dean Felton
8:45-10:15 a.m. National Agenda
10:15-10:30 a.m. Break and Picture
10:30-11:30 a.m. National Agenda
11:30-12:00 p.m. Tour of School Of Dentistry
12:00-1:00 p.m. Lunch & MOOG Demonstration
1:00-2:30 p.m. National Agenda
2:30-2:45 p.m. Break
2:45-4:15 p.m. National Agenda
4:15 -4:30 p.m. Meeting adjourns, return to Hotel
6:30p.m. Dinner at Ely's Restaurant

Friday, November 4, 2016

7:30-8:30 a.m. Attendee's arrival/Breakfast
8:30-10:15 a.m. Local Agenda
10:15-10:30 a.m. Break
10:30-11:45 a.m. Review and Adjourn

Meeting will take place in Rooms D502 and D505

Regional Meeting Attendee's Form

Dr. Zachary Dacus	University of Oklahoma	405-271-5735	Zachary.dacus@ouhsc.edu
Dr. Terry Fruits	University of Oklahoma	405-271-5735	Terry-fruits@ouhsc.edu
Dr. Tracy Dellinger	UMC	601-984-6030	tdellinger@umc.edu
Dr. James Fitchie	UMC	601-984-6030	jfitchie@umc.edu
Dr. Scott Phillips	UMC	601-984-6030	Smphillips@umc.edu
Dr. Susana Salazar	UMC	601-984-6030	ssalazarmarocho@umc.edu
Dr. Barry Rubel	UMC	601-984-6030	brubel@umc.edu
Dr. James Lott	UMC	601-984-6030	jrlott@umc.edu
Dr. Mitch Hutto	UMC	601-984-6030	dhutto@umc.edu
Dr. Pia Kirk	UMC	601-984-6030	Pchatterjee@umc.edu
Dr. Steve Magee	UMC	601-984-6030	smagee@umc.edu
Dr. Bill Boteler	UMC	601-984-6030	wboteler@umc.edu
Dr. Shalizeh Patel	University of Texas Houston	713-486-4269	Shalizeh.Patel@uth.tmc.edu

Dr. Gary Frey	University of Texas Houston	713-486- 4286	Gary.N.Frey@uth.tmc.edu
Dr. Nick Miniotis	LSU	228-257- 0427	nminio@lsuhsc.edu
Dr. Francis Giacona	LSU	504-941- 8257	fgiacco@lsuhsc.edu
Dr. James Ragain	University of Tennessee	901-448- 1323	jragain@uthsc.edu
Dr. George H. Cramer	Texas A&M	214-828- 8468	gcramer@tamhsc.edu
Dr. Shannon Roberts	University of Texas San Antonio	254-723- 3371	dobelbower@uthscsa.edu
Dr. Joseph Connor	University of Texas San Antonio	210-567- 3693	connorj@uthscsa.edu
Dr. Barry Owens	University of Tennessee	901-832- 0472	bowens@uthsc.edu

Regional Meeting Reporting/National Meeting Information

The 2016 National Agenda was established after a review of the suggestions contained in the reports of the 2015 Fall Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas were reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect as to what has changed and the response/action taken and/or the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending a Regional Meeting is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to timely publication of the National Annual Report.

Continue to invite your colleagues, Dental Licensure Board examiners, and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings. The strength of the organization lies in its membership.

Each Region should select next year's meeting site and date/tentative date during your Fall Regional CODE meeting so this information may be published in the Annual National Report and on the CODE website.

The Regional meeting reports are to be submitted to the National Director **in publishable format** as an email attachment.

The required format and sequence will be:

- 1. CODE Regional Meeting Report Form***
- 2. CODE Regional Attendees form***
- 3. Summary of responses to the National Agenda**
- 4. Individual school responses to the National Agenda**
- 5. The Regional Agenda summary and responses**

*(copies may be obtained from the CODE website: www.unmc.edu/code or within this document)

Send an electronic copy of the final regional report via an email attachment to the National Director (gary.stafford@mu.edu) within thirty (30) days of the meetings conclusion.

National CODE Meeting:

The meeting will be held Thursday, February 23rd, 2017 from 5:00 – 6:00 pm at the Drake Hotel, 140 East Walton Place, room TBA in Chicago, IL. Any member who would like to present or who has suggestions for speakers should contact the National Director for more information.

2017 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held during the ADEA Annual Session & Exhibition, March 18-21, 2017 in Long Beach, CA.

National Directory of Operative Dentistry Educators:

The CODE National Director maintains the National Directory of Operative Dentistry Educators as a resource for other dental professionals. It is critically important that this information be as current as possible.

You may update your university's directory listing on the CODE website at www.unmc.edu/code or by sending an email directly to the National Director at gary.stafford@mu.edu.

In an effort to keep the National Directory up to date, please have each school in your Region update the following information:

1. *School name and complete mailing address*
 - a. *Individual names: (F/T Faculty), phone number and email address of F/T Faculty who teaches operative dentistry.*
3. This could be individuals who teach in a comprehensive care program, etc... if there is no defined operative section of the department.

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete National Directory and publishing the Annual National Report in a timely fashion.

All my best,

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director
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2016 National Agenda

I. Curriculum

A. Integration of Technology in the Pre-clinical and Clinical experience

1. Are you using CAD/CAM in your pre-clinical courses? **NO**

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

Texas A&M - Currently, we are not using CAD/CAM in our pre-clinical operative course and there are no immediate plans to incorporate this technology in this course.

University of Oklahoma - No, CAD/CAM is not currently used in pre-clinical courses. In 2017 the E4D Planmeca system will be incorporated into the Fixed Prosth. pre-clinical course.

University of Texas San Antonio – Yes, new curriculum will begin in Fall of 2017. Will likely begin using in Spring of 2018 in pre-clinical labs.

i. What System?

University of Texas San Antonio – Currently looking into E4D with the ability to provide student feedback based on master file during scheduled and unscheduled lab periods.

ii. How soon?

University of Texas San Antonio - Implementation likely in Spring 2018

b. Do you plan on incorporating CAD/CAM in your pre-clinical courses? **YES**

i. Which courses?

University of Mississippi – Dent 616-5 Indirect Esthetic Restorations and Digital Imaging.

Texas A&M - Although we are not using CAD/CAM for our pre-clinical operative course, it is being used for the pre-clinical fixed prosthodontics course in the D2 year.

University of Tennessee - Dental Morphology (RESD 104), Dental Biomaterials (RESD 113), Introduction to CAD/CAM Dentistry (RESD 115), Esthetic Dentistry (RESD 209), Fixed Prosthodontics I (Pros 226), Fixed Prosthodontics II (Pros 228), Operative Dentistry Clinics (RESD 306/406), Advanced Biomaterials (RESD 401).

LSU - Sophomore Pre-Clinical Fixed Prosthodontic Course, Junior Prosthodontic 1 Course (Didactic and Pre Clinical lab projects), Junior Advanced Operative Course (Didactic and Pre Clinical Lab Projects), and Senior Prosthodontic 2 Course (Clinical)

University of Texas Houston - 2nd year clinic

ii. What System?

University of Mississippi – Sirona CEREC and Cadent Itero

Texas A&M - The E4D system using PlanScan, Romexis software and the Compare adaptive learning technology.

University of Tennessee - CEREC™ (Sirona)

LSU - CEREC BlueCams and Omnicams

University of Texas Houston – E4D

iii. How long have you been using a CAD/CAM system?

University of Mississippi – 2012-2013 course was created, prior to course CAD/CAM was a 4 hour lecture/lab in the Dent 616-3 Caries III course.

Texas A&M - Last year (academic year 2015-16) was the first year to use this system and it was used on a trial basis. This year the system is being used for one project in the fall semester (using E4D Compare Haptic Feedback System) and one project in the spring semester (E4D used to scan a full porcelain crown preparation and mill a full coverage acrylic restoration from an acrylic block).

University of Tennessee – Since 2001

LSU - LSUSD has had CEREC system since 2004.

University of Texas Houston – 7 years

iv. How are you using CAD/CAM in your pre-clinical courses?

University of Mississippi – 40 hour course to teach preparation of inlays, onlays and posterior full coverage crowns.

Texas A&M - The E4D system is being used to scan crown preparations, scan buccal bite registrations, design indirect restorations, and finally to mill indirect restorations. The E4D Compare program provides Haptic Feedback to the D2 students.

University of Tennessee - Introduction to CAD/CAM Dentistry in the Spring semester of the 1st year. The students learn basic information and

technical procedures for fabrication of a CEREC™ designed restoration. In the 2nd year Prosthodontic laboratories, students expand their knowledge base and apply technical procedures necessary to fabricate several different CEREC restorations (onlay, complete crown, etc.)

LSU - In the Sophomore Pre-Clinical Fixed Prosthodontic Course we are teaching preparation design/parameters for ceramic crowns, inlays, onlays, and veneers as well as traditional gold and PFM crowns. Additionally we are teaching the utilization of the CEREC design software so that the students can, after scanning their restoration preparation, complete a digitally designed restoration and then mill it. We are requiring an inlay, onlay, and crown preparation, design, and milled restoration to be completed by the end of the course.

University of Texas Houston – Hands on demos in small group setting

- v. What are the prerequisites for its use?

University of Mississippi – Successful completion of the preclinical course Dent 616-5.

Texas A&M - D2 students must take the E4D Elements online training course (planmecauniversity.com) and review the E4D training manuals provided to them. In the fall semester, after the online training is completed, small groups of D2 students commute to the E4D factory in Richardson, Texas to attend a one-half day training session before using the system in the D2 Fixed Prosthodontics pre-clinical lab course.

University of Tennessee - Competency in preceding RESD preclinical courses

LSU - Upon completion of the CEREC pre-clinical didactic curriculum and training videos, the sophomore dental student will then have to pass a written exam. Upon passing this exam, the student will be allowed to begin the lab component of the pre-clinical course.

University of Texas Houston – Be a second year student

- vi. When do students get to use it?

University of Mississippi – Third and Fourth year in Operative of Fixed Prosthodontics Clinics.

Texas A&M - The D2 students have designated projects in the fall and spring semesters where they use the E4D system.

University of Tennessee - Spring semester – 1st year, Fall semester – 2nd year

LSU - Upon completion of the CEREC pre-clinical didactic curriculum and training videos, the sophomore dental student will then have to pass a written exam. Upon passing this exam, the student will be allowed to begin the lab component of the pre-clinical course.

University of Texas Houston – 1st semester, 2nd year

vii. Who provides supervision?

University of Mississippi – Faculty comfortable with covering CAD-CAM restorative procedures.

Texas A&M - The D2 fixed prosthodontic faculty provide the supervision for the use of the E4D system on the projects in the pre-clinical lab.

University of Tennessee - Preclinical laboratory faculty proficient in the usage of CAD/CAM technology and application.

LSU - Faculty assigned as pre-clinical mentors.

University of Texas Houston – GP Faculty

viii. What training did they receive?

University of Mississippi – Sirona, CEREC, provided training and faculty in preclinical course.

Texas A&M - The D2 fixed prosthodontic faculty received online training as well as hands on training at the E4D factory.

University of Texas - Various: “In-house” CE courses

LSU - CEREC training modules and “hands on” training by appropriate senior faculty members who have had training and experience.

University of Texas Houston – At the factory and by manufacturers reps here at the School

2. Are you using CAD/CAM in your clinical courses? **NO**

a. Do you plan on incorporating CAD/CAM clinically?

Texas A&M - At this time, there are no plans for incorporating CAD/CAM in the D3 year; the faculty have determined that the D3 students should have the clinical experience of restoring teeth with fixed prosthodontic restorations in the conventional manner before transitioning to other technologies in the D4 year. Texas A&M College of Dentistry will begin construction of a new clinical facility in 2017; upon completion, it is

possible that CAD/CAM may be incorporated clinically in the D3 year but this decision has not been made at this time.

b. Do you plan on incorporating CAD/CAM clinically? **YES**

i. Which courses?

University of Mississippi – Dent 675-7A Operative Dentistry and Dent 675-7B Fixed Prosthodontics.

Texas A&M - D4 General Dentistry

University of Tennessee - Operative Dentistry Clinics (RESO 306/406), Esthetic Dentistry Clinic, General Dental Practice Clinics, AEGD, Graduate Prosthodontics.

LSU - Junior Prosthodontic 1 Course, Junior Advanced Operative Course, and Senior Prosthodontic 2 Course

University of Oklahoma – Third year Fixed Prosth. (all ceramics), Comprehensive Care Clinic

University of Texas Houston – Third year operative (very seldom), 4th year operative and 4th year prosthodontic clinics.

University of Texas San Antonio - Currently, being given 2-3 lectures covering use of CAD/CAM in fixed and during clinical orientation at the beginning of the Fall of Junior year.

ii. What System?

University of Mississippi – Sirona CEREC Omnicam Chairside system, Limited Caden Itero use.

Texas A&M - E4D, Cerec, Itero

University of Tennessee - CEREC™ (Version 4.4.2 software; Omni-Cam)

LSU - CEREC Omnicams

University of Oklahoma - E4D Planmeca & Cerec Sirona

University of Texas Houston – E4D

University of Texas San Antonio - Available systems are both 3M TrueDefinition and 3Shape Trios. More widely used is the 3Shape trios due to ease of use since powdering prior to scanning is not required. Lab support and lab product quality has been improving dramatically and appears to be most accurate with the 3Shape Trios.

iii. How long have you been using a CAD/CAM System?

University of Mississippi - Sirona Chairside CEREC AC (red camera) unit and Mill purchased in 2007. Use in clinics was limited. 10 additional CEREC Ac units were acquired through Sirona's gifting program. An elective 698-49 was created and eventually became a required course in 2012-2013. Clinical use remained low until OmniCam purchase in June, 2013.

Texas A&M - 8-9 years

University of Tennessee - Since 2001

LSU - LSUSD has had CEREC system since 2004.

University of Oklahoma – Since August 2016

University of Texas Houston – 7 years

University of Texas San Antonio – 6 years

iv. How are you using CAD/CAM in your pre-clinical courses?

University of Mississippi - Teach preparation of inlays, onlays and posterior full coverage crowns; cementation and clinical imaging exercise

Texas A&M - In D2 Fixed Prosthodontic pre-clinical Lab course

University of Tennessee - CEREC™ for fabrication of all types of indirect restorations. Students are provided assistance in preparation design, scanning, "milling", and delivery of final restoration. Third and fourth year students, both, apply information learned in preclinical courses for clinical usage.

LSU - Pre-Op: Before a student schedules a patient for CAD/CAM, he or she must: (a) Discuss the case with his or her Faculty Mentor that will involve the patient's study models, x-rays, and evaluation of the patient's past and current periodontal health; (b) Upon evaluation of the restorative plan, the student should be able to demonstrate knowledge of: (i) restorative material; (ii) the required preparation; and, (iii) digital impressioning technique.

Preparation and Impressioning Appointment: At this appointment with the Faculty Mentor, the student will demonstrate the ability to: (a) prepare a tooth for the planned restoration; (b) provide proper tissue management for both a PVS impression AND a scanned digital impression; (c) use the CEREC software to produce a digital restorative

proposal for milling; (d) try-in of milled restoration; (e) fabricate a temporary restoration as needed.

University of Texas San Antonio - Currently not using in the pre-clinical lab setting. Only one lecture being given during pre-clinical years introducing concept of CAD/CAM.

v. What are the prerequisites for its use?

University of Mississippi – Successful completion of the 616-5 course.

Texas A&M - Prior to clinical use in the D4 year, the students commute to the E4D factory for a seminar and hands on exercises. Itero training is provided by faculty and staff familiar the system.

University of Tennessee - Competency in preclinical courses (CAD/CAM).

LSU - In 2016-17 the only pre-requisites are: Pre-Op: Before a student schedules a patient for CAD/CAM, he or she must: (a) Discuss the case with his or her Faculty Mentor that will involve the patient's study models, x-rays, and evaluation of the patients past and current periodontal health; (b) Upon evaluation of the restorative plan, the student should be able to demonstrate knowledge of: (i) restorative material; (ii) the required preparation; and, (iii) digital impressioning technique. However, with additional trained faculty we are now moving toward passing: (a) CAD/CAM prepping for a crown; (b) onlay, inlay; (c) digital proposal of the restoration; (d) milling training in the Sophomore and Junior year in pre-clinical and clinical Pros as a pre-requisite for clinical use.

University of Oklahoma – Student Requirements: (1) Must be in Comprehensive Care: Three Crowns Cemented, (2) Must finish the ceramic FPD III Course, and (3) Must contact and consult with Dr. Al Sakka or Dr. Scot Shadid prior to scheduling patient for the all ceramic restoration. Patient Requirements: (1) Must have current and accurate exam and radiographs, (2) Must have current and accurate mounted diagnostic models, (3) Perio disease be under control and treatment up to date, (4) If possible have an intra-oral picture, and (5) must be a posterior tooth (pre-molar or molar).

University of Texas Houston – Must have 3rd year prosthodontic requirements done and be well into 4th year requirements.

University of Texas San Antonio - Clinically, Junior dental students are "required" to complete all 3 fixed progress assessments prior to use clinically. A small loop hole has developed in that in some particular

cases junior students are scanning clinically based on patient specific problems with obtaining a traditional master impression. In addition, Juniors making a traditional impression have been using the scanning technology to scan the casts in order to not have to trim dies. As for the Seniors, the only requirements currently in place are that they may use the scanners for any and all cases deemed appropriate with the exception of their 2 single unit fixed and 1 FPD graded exams. Again, a loop hole has developed in that students are scanning either clinically or master casts and either taking deductions in their grade or in most cases not being penalized.

vi. When do students get to use it?

University of Mississippi – Third and Fourth year in Operative of Fixed Prosthodontics Clinics.

Texas A&M - D4 students use CAD/CAM as their patient cases warrant.

University of Tennessee - Third and fourth years.

LSU - Junior and Senior students are asked to review the case with faculty that will be their clinical mentor. Upon approval, the student will appoint the patient when the faculty clinical mentor is available.

University of Texas Houston – End of 3rd year, 4th year

University of Texas San Antonio - Case selection is critical for use of digital scanning technology. In patient's with active floor of the mouth or severe gag reflex which can not tolerate making a master impression, digital impression techniques are encouraged. Experientially, I have found that patient's who have excess saliva are not always easier cases for digital scanning as saliva provides a great amount of reflectivity which in turn blurs the finish lines. Also, patient's whose finish lines are deep subgingivally and/or close to bone are typically not good candidates for scanning because of the time required to obtain a good/usable image and the rate of tissue collapse.

vii. Who provides supervision?

University of Mississippi – Faculty comfortable with covering CAD-CAM restorative procedures.

Texas A&M - The D4 group leaders provide the supervision over CAD/CAM patient cases.

University of Tennessee - Clinical faculty competent and proficient in CAD/CAM (CEREC™) technology.

LSU - Faculty assigned as clinical mentors.

University of Oklahoma – Two instructors in Prosthodontics

University of Texas Houston – GP faculty, one or two prosthodontic faculty

University of Texas San Antonio - All clinically faculty are “certified” to provide supervision. Like with any new technology there are some faculty which prefer not to adopt and others who do and the disbursement of these faculty among the General Practice Groups (GPGs) is not necessarily even. For this reason, there is a “CAD/CAM” clinic in which 4 students per session offered at 4 sessions per week have an opportunity to work with two highly trained CAD/CAM faculty champions.

viii. What training did they receive?

University of Mississippi – Sirona, CEREC, provided training and faculty in preclinical course.

Texas A&M - D4 faculty received training online and at the E4D and Cerec factories. Additionally, they have D4 faculty in-service calibration meetings from time to time. Itero training is provided by faculty and staff familiar the system.

University of Tennessee - Various: “In-house” CE courses or through Sirona

LSU - CEREC training modules and “hands on” training by appropriate Faculty Mentors who have had training and experience.

University of Oklahoma - Certification from manufacturer, residency training (1), CE courses, 10 years private practice (1)

University of Texas Houston – **Outside and in-house CE courses put on by the manufacturers.**

University of Texas San Antonio - 4 hours of lecture. One in sophomore year consisting of basic concepts and three in the beginning of Junior year consisting of the how-to’s.

c. Are you using virtual reality haptic feedback training? **NO**

University of Mississippi – No system currently being reviewed.

Texas A&M – No, not in the D2 operative pre-clinical lab course.

LSU – Not at this time

University of Oklahoma – No plans to use in future

University of Texas Houston – No

- d. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

University of Texas Houston – No

University of Texas San Antonio - No, not currently being considered.

- e. Are you using virtual reality haptic feedback training? **YES**

- i. Which courses?

Texas A&M - Virtual Reality Haptic Feedback Training is currently being used in the D2 Fixed Prosthodontics laboratory course.

University of Tennessee - Tooth Preparation (RESD 105)

University of Texas San Antonio - Currently, being given 2-3 lectures covering use of CAD/CAM in fixed and during clinical orientation at the beginning of the Fall of Junior year.

- ii. What System?

Texas A&M - The E4D Compare system.

University of Tennessee - DentSim Image Navigation

University of Texas San Antonio - Available systems are both 3M TrueDefinition and 3Shape Trios. More widely used is the 3Shape trios due to ease of use since powdering prior to scanning is not required. Lab support and lab product quality has been improving dramatically and appears to be most accurate with the 3Shape Trios.

- iii. How long have you been using Virtual Reality Haptic Feedback Training?

Texas A&M - This is the second year that the E4D Compare system is in use at our institution.

University of Tennessee - Since 2001

University of Texas San Antonio – 6 years

vi. Who provides supervision?

Texas A&M - The D2 fixed prosthodontic faculty supervises the D2 students in the use of the E4D system including the Compare program using Romexis software.

University of Tennessee - Preclinical faculty proficient in the application of this technology.

University of Texas San Antonio - All clinically faculty are “certified” to provide supervision. Like with any new technology there are some faculty which prefer not to adopt and others who do and the disbursement of these faculty among the General Practice Groups (GPGs) is not necessarily even. For this reason, there is a “CAD/CAM” clinic in which 4 students per session offered at 4 sessions per week have an opportunity to work with two highly trained CAD/CAM faculty champions.

v. What training did they receive?

Texas A&M - The D2 fixed prosthodontic faculty received online training as well as hands-on training at the E4D factory.

University of Tennessee - Formal training provided by DentSim representatives and “In-house” instruction.

University of Texas San Antonio - 4 hours of lecture. One in sophomore year consisting of basic concepts and three in the beginning of Junior year consisting of the how-to’s.

vi. What System?

Texas A&M - E4D Compare using Romexis software

University of Tennessee – DentSim

vii. How is it being used?

Texas A&M - The Compare program is used by the students as an adjunct evaluation technique. In the fall semester, each D2 student uses the program to evaluate his/her porcelain crown preparation on tooth #13 compared to a standardized preparation. Those aspects of a student’s preparation which are not within a designated tolerance from the ideal preparation are noted by areas of red shading while those within a given tolerance are noted by areas of green or yellow shading. The student may then make changes to his/her preparation as warranted.

At this time, there are three laptops and scanners for use in the D2 Fixed Prosthodontic lab; because there is no secured room in which to keep these items where students can swipe in and use at will, students may only access them during fixed prosthodontic laboratory class hours and only three at a time. In the future, it is the hope that a secured room with student card key access can be established and that more laptops and scanners will be made available for student use at various times including evenings and weekends.

In the spring semester, each D2 student will scan in a full porcelain crown preparation, design the restoration, and mill the restoration from an acrylic block. The students will then cement their restorations on the typodont/simulated patient. In the future, as more laptops and scanners are made available, the D2 students will use the Compare program, scanners and milling technology for more fixed prosthodontic pre-clinical laboratory projects.

University of Tennessee - An initial experience, practical course in Restorative Dentistry that presents and trains students to perform simulated clinical procedures in Operative Dentistry and Fixed Prosthodontics. Training of motor skills, cognitive skills, and ergonomics will be emphasized.

Course competency: Student doctors, completing the laboratory portion of this course, should be able to perform the following exercises: Demonstrate a proficiency in the ability to do Class I and Class II amalgam preparations and amalgam restorations. Criteria or the use of a grading scale is an adequate, objective means of determining competency. Self-evaluation, by the student, can also be a plausible method in final grade assessment. Competency or learning efficiency will be determined utilizing multiple tools (examinations and exercises). Each area of evaluation will be weighed as to assure attainment of learning objectives.

viii. Is it efficacious?

Texas A&M - At this time, the D2 fixed prosthodontic faculty have only anecdotal information; the use of this system appears to assist the students in evaluating their preparation designs. With further use of the system, more information and evidence will be gathered and the faculty are conducting a study to evaluate if the use of this system is efficacious.

University of Tennessee - Yes, students are exposed the first week to this particular technology for application to future RESD courses.

- f. Are you using an Intraoral Digital Impression system in your clinical courses?
NO

Texas A&M – No, not in the D3 year.

University of Tennessee – No

University of Oklahoma – Not used at this time in clinical courses.

- i. Do you plan on incorporating Digital Impressions in your clinical courses?

Texas A&M - There are no immediate plans to incorporate digital impressions in the D3 Fixed Prosthodontic clinic.

University of Tennessee - With pervasive usage of CEREC technology, other existing systems are not being incorporated, presently, into the undergraduate dental preclinical or clinical curriculum. However, the graduate prosthodontic residents are utilizing the iTero scanning technology. Campus IT restrictions for digital scanning and information transmission can provide obstacles.

University of Oklahoma – Yes

- ii. What System?

University of Oklahoma – Will utilize E4D & Cerec

- iii. How soon?

University of Oklahoma – Incorporate in 2017

- g. Are you using an Intraoral Digital Impression system in your clinical courses?
YES

Texas A&M - In the D4 year, the General Dentistry/Comp Care program uses digital impression systems.

University of Texas Houston – Yes

- i. What System?

University of Mississippi – Cerec by Sirona and iTero by Cadent

Texas A&M - Cerec, E4D and Itero

LSU - CEREC OmniCams.

University of Texas Houston - Itero, E4D (not used with milling system by some) depending on faculty

- ii. How long have you been using a Digital Impression System?

University of Mississippi – Since 2007

Texas A&M - 6+ years

LSU - 2005 to present.

University of Texas Houston – 9 years, 7 years

- iii. What are the prerequisites for its use?

University of Mississippi - Completion of the Indirect Restorations and Digital Imaging Course (616-5) during their 2nd year.

Texas A&M - Training occurs in D4 summer session at factories for E4D and Cerec along with online training. Itero training is provided by faculty and staff familiar the system.

LSU - In 2016-17 the only pre-requisites are: Pre-Op: Before a student schedules a patient for CAD/CAM, he or she must: (a) Discuss the case with his or her Faculty Mentor that will involve the patient's study models, x-rays, and evaluation of the patients past and current periodontal health; (b) Upon evaluation of the restorative plan, the student should be able to demonstrate knowledge of: (i) restorative material; (ii) the required preparation; and, (iii) digital impressing technique.

However, with additional trained faculty we are now moving toward passing: (a) CAD/CAM prepping for a crown; (b) onlay, inlay; (c) digital proposal of the restoration; (d) milling training in the Sophomore and Junior year in pre-clinical and clinical Pros as a pre-requisite for clinical use.

University of Texas Houston - Must have 3rd year prosthodontic requirements done and be well into 4th year requirements.

iv. When do students get to use it?

University of Mississippi – During their 3rd and 4th years of clinical fixed prosthodontics.

Texas A&M - D4 clinic any time after training is completed.

LSU - Pre-Op: Before a student schedules a patient for CAD/CAM, he or she must: (a) Discuss the case with his or her Faculty Mentor that will involve the patient's study models, x-rays, and evaluation of the patients past and current periodontal health; (b) Upon evaluation of the restorative plan, the student should be able to demonstrate knowledge of: (i) restorative material; (ii) the required preparation; and, (iii) digital impressing technique. Preparation and Impressioning Appointment: At this appointment with the Faculty Mentor, the student will demonstrate the ability to: (a) prepare a tooth for the planned restoration; (b) provide proper tissue management for both a PVS impression AND a scanned digital impression; (c) use the CEREC software to produce a digital restorative proposal for milling; (d) try-in of milled restoration; (e) fabricate a temporary restoration as needed

University of Texas Houston – End of 3rd for a very few, middle to end of 4th for most.

v. Who provides supervision?

University of Mississippi – Full time and Part time fixed prosthodontic faculty.

Texas A&M - D4 faculty

LSU - Faculty assigned as clinical mentors.

University of Texas Houston - Individual faculty who are fluent in the technologically teach it to students on a case-by-case basis, but it is not a universal technique that all students are exposed to with live patients.

vi. What training did they receive?

University of Mississippi – They must complete the 616-5 course where they receive didactic and hands-on training.

Texas A&M - On line and factory training.

LSU - CEREC training modules and “hands on” training by appropriate senior faculty who have had training and experience.

University of Texas Houston - Manufacturers training both at their facility and at the school, plus personal use in faculty practice.

h. Are you using 3D printing for any pre-clinical or clinical application? **NO**

University of Mississippi – No

Texas A&M – Not at this time

University of Tennessee - No

LSU – No

University of Oklahoma – No

University of Texas Houston – No

University of Texas San Antonio - No

i. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?

University of Mississippi - Yes

Texas A&M - Not at this time.

University of Tennessee – At present. No

LSU - Not at this time. Several faculty are investigating its possibilities. The library has a small 3D printer for student and faculty projects. It is available by appointment.

University of Texas Houston – Possibly

University of Texas San Antonio – Not currently being considered.

ii. What System?

University of Mississippi – Not defined yet, will begin search for grants/sponsorship for equipment in the next quarter.

University of Oklahoma – Not using 3D printing

University of Texas Houston – Form 2 by Formlabs

University of Texas San Antonio – None

iii. How soon?

University of Mississippi – Hoping to incorporate into curriculum for the following academic year.

University of Oklahoma – No plans for use at this time

University of Texas Houston – Not sure

University of Texas San Antonio – Not in the next 2-5 years

i. Are you using 3D printing for any pre-clinical or clinical application? **YES**

Texas A&M - Dr. Amirali Zandinejad, Director of the AEGD program at Texas A&M College of Dentistry, is merging new ideas with advanced technology. He and team members at the University of Louisville School of Dentistry prior to his affiliation with the Texas A&M College of Dentistry, developed the concept and design (which is patented) to develop a ceramic crown with a graded structural design. This type of restoration was not possible without D3 printing technology. Dr. Zandinejad continues his research and development in this field.

j. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

University of Mississippi - Once technology (equipment, supplies, or software) becomes available, vendors provide on-site training. This may be through lunch-and-learn opportunities or specific sessions reserved to learn of new technology offered in clinic. Each vendor must go through a vetting process through the University prior to being allowed to be on campus, entitled Vendor Mate. Vendor Mate contains educational modules to familiarize the vendors with UMC policies/procedures, as well as our Compliance regulations, inoculation requirements and federal HIPPA regulations.

Purchase of technology must go through a Clinical Affairs Advisory Committee to review pertinent peer-reviewed scientific material, a cost-analysis procedure, and committee discussion/voting to justify the purchase. Depending on cost, the technology may also have to go through a bidding process and be presented to our Institutional Effectiveness and Planning Committee for IEP approval. This process helps general faculty interest and “buy-in” to the technology and hopefully a stronger desire to become trained and integrate the technology into clinic.

Texas A&M - Faculty meetings and faculty in-service calibration meetings are methods used to integrate new ideas, protocols and technology in our clinical courses.

University of Tennessee - This can be difficult. Education regarding these technologies in an unobtrusive atmosphere and/or logical manner is a key. Computer skills (at this level) can be, perhaps an impediment. Make the learning of new technologies an “evidence-based”, skill-set opportunity instead of a “must do before a particular date” scenario necessary. The administration must be accepting of the new learning for educational purposes and not necessarily as income producing modalities.

LSU - Persistence and Training.

University of Oklahoma - Integrate the technology in Pre-clinical courses: (1) Participation in lecture series, (2) Participation in pre-clinical courses once the technology has been integrated, and (3) Participation in research involving technology.

University of Texas Houston – Training and students mandating its use.

University of Texas San Antonio - Faculty adoption can be an issue. The approach made in the previous 2-5 years was that we were going to really train up all the faculty by holding lectures and hands-on-training. Unfortunately, this was not made mandatory and therefore only the people who were interested or just wanted to play around with it were the only ones in attendance. The current approach, which seems to be working really well, is to train only a few faculty and really train up the students. By having the students be the driver of the technology and their comfort level with using it high we have seen some of the anxiety of the faculty supervising decrease. Although, if something goes wrong with the scan and the supervising faculty is not comfortable with digital scanning the student ends up making a traditional impression.

B. Clinical Organizational Structure

1. How many pre-doctoral students do you have per class?

University of Mississippi – 35-40

Texas A&M - We have 106 students at the beginning of the D1 year. The number varies in subsequent years if students discontinue the program or repeat an academic year.

University of Tennessee - Depends. For the 2016-2016 D-1 class, 98 were accepted, with 100 being the future admissions goal. UTCOD presently has between 88-98 students per class depending upon the class.

LSU - Select 65 which translates to 63-67 graduate.

University of Oklahoma – We have 60 predoctoral students per class.

University of Texas Houston – 103

University of Texas San Antonio – Freshmen 100, Sophomores 106, Juniors 115, and Seniors 102.

- i. What are your normal hours per clinical session?

University of Mississippi – 2-4 hours

Texas A&M - Clinic hours are from 10:00 A.M. to 4:30 P.M. with faculty coverage the entire time.

University of Tennessee - 9:00 am to 11:45 am and 1:00 pm to 4:45 pm

LSU - Seniors & Juniors: 8am huddle with patient care from 8:30 to 11:30 and 1-4:30 (Monday-Thursday). Sophomores: 8:45am huddle with patient care from 9-11:30 and 1-4 on Fridays.

University of Oklahoma - Clinic hours: Morning 9:00AM-12:00PM; Evenings: 1:00PM-4:00PM

University of Texas Houston – 3 hours

University of Texas San Antonio - 9:00-12:00 AM session, 1:00-5:00 PM session, and treatment is expected to be complete ½ hour before end of clinic.

- ii. How are your clinical groups set-up?

University of Mississippi - Team approach, one student from each class makes a team. 3 teams comprise a clinical problem solving group. Each group has its own advisor. Groups can interchange patients depending on clinical needs. Clinics are divided into divisions: ODX, operative, fixed, removable, radiology and specialty clinics OMFS, ortho, peds, endo, and perio.

Texas A&M - Clinical groups are set-up differently in the D3 year from the D4 year. In the D3 year, although comprehensive patient care is provided for the patient, the delivery of the treatment is discipline based meaning that D3 operative faculty supervise operative treatment, D3 fixed prosthodontic faculty supervise fixed prosthodontic treatment etc.

In the D4 year, routine periodontal treatment and all operative and fixed prosthodontic treatment is supervised by the D4 faculty most of which are also group leaders. More complex periodontal cases are supervised by periodontics faculty members and all endodontic cases are supervised by endodontic faculty. Oral surgery is supervised by OMS faculty for both D3 and D4 years; removable prosthodontic faculty supervise removable prosthodontic treatment for both D3 and D4 years.

University of Tennessee - Approximately 10-12 third and fourth year students, including two “Group Leader” faculty per group.

LSU - Mini Clinics are composed of Sophomore, Junior, and Senior Dental students. A Senior is part of a Team (7 total) that has a Team Leader in the Senior Comprehensive Care Clinic. A Team has a maximum of 10 Senior students. The Team Leader mentors and grades his/her Team members (Seniors) throughout the school year in OD&TxPlanning/Radiology/Operative/Fixed and Removable Pros/minor Perio&OS. Endo and complex OS procedures are done in their respective clinics. A Team Leader and a student may request a consult from any discipline during clinic hours. There are Team huddles at 8 AM for the Seniors and Juniors prior to clinic (Monday-Thursday). A Junior schedules a patient in the Junior Clinic that is arranged in dental disciplines (Radiology, OD/Tx Planning, Operative, Fixed Pros, Removable Pros, and Periodontology). Sophomores are arranged in assigned groups for their Friday Clinic (Operative and Perio). OS, Ortho, and Endo have their own separate clinics that have full-time and part time faculty mentors/graders.

University of Oklahoma - There are nine Group practices - Each group practice has about 6-7 fourth year, 6-7 third year 6-7 second year, and 6-7 first year dental students assigned to it. . Each group practice is divided into “vertical” teams including a 1st, 2nd, 3rd, and 4th year student. The students within a vertical team may share patients to some extent.

University of Texas Houston - Vertically integrated (2nd, 3rd, 4th and DH) in same geographic area. Each group is under the leadership of

one General Practice Leader (GPD), with generalists and specialists (perio and prosth) supporting

University of Texas San Antonio - We have 8 General Practice Groups of around 24 students each divided between juniors and seniors.

iii. How do your clinical groups function?

University of Mississippi - Each team works together on Tuesday morning clinics, and for grand rounds. The clinic flow is typically starting in Screening, ODX, to Radiology, to Perio and seen in the clinics to meet the specific needs of the patients.

Texas A&M - Although the D3 and D4 clinical groups are structured differently, for the most part they function well. The D3 year faces challenges in transitioning students from pre-clinical lab courses to comprehensively treating patients in our clinics at a level of competence where the student is didactically and clinically ready to matriculate to the D4 year.

The D4 year is challenged with continuing the process by transitioning the student toward the independent practice of general dentistry at the level of competence for the new dentist as outlined in the “Competency for New Dentists, Texas A&M College of Dentistry” document reflecting the changes to the new CODA standards of 2013.

University of Tennessee - Group Leader faculty provide supervision of the diagnostic, treatment planning, and treatment (limited) for the students. Additional faculty from other disciplines/specialties also provide supervision and instruction of the particular field of interest. Is actually a “hybrid” system of clinical instruction?

LSU - Refer to the previous section.

University of Texas Houston – General group practice model

University of Texas San Antonio - Juniors have closer supervision and must accomplish specific objectives in restorative, fixed and removable prosthodontics, periodontics, surgery and others. Seniors treat more complicated cases. They have fewer named

courses. Comprehensive examination grades are combined into a single general dentistry grade.

- iv. How long have you had your current structure?

University of Mississippi - CPS teams started about 10 years ago, clinics have been structured similar to current structure since 1975, however in 2004, Department of Oral Diagnosis was joined with Department of Restorative Dentistry creating Care Planning and Restorative Sciences and the current clinic structure.

University of Tennessee - Approximately 4 years

LSU - 2011-12 school year.

University of Oklahoma - We have had this current structure in clinics for about three years.

University of Texas Houston – 4.5 years

University of Texas San Antonio - for more than 12 years

- v. Do you plan on changing in the near future?

University of Mississippi – Not to our knowledge

Texas A&M - With the construction of the new clinical building beginning next year with a planned completion date at the end of 2019 or early 2020, vertical integration of the D1 through D4 years in the clinical setting is in the planning stages.

University of Tennessee – Unknown

LSU – No

University of Oklahoma – No plans to change at this time

University of Texas Houston – Not substantially

University of Texas San Antonio - The Curriculum is in the process of revision but clinical courses will remain largely unchanged. Pre-clinical courses will begin earlier in the freshman year and end

before the clinic starts in the last 6 weeks before the end of the sophomore year.

C. Screening

1. How are patients screened for acceptance into your pre-doctoral program?

University of Mississippi - Our patients are scheduled for a specific appointment for screening. The potential patients are initially evaluated by the students assigned to screening that day or those students that we reassign if they do not have a patient. The students review the HHX and take vitals on all patients that come in to the screening clinic.

Once the student has made an initial determination of patient needs and discussed the expectations of the patient, the program in general and our payment policies they will report their findings to the faculty with a recommendation of whether we should accept the patient or not.

At that time, the faculty in the Oral Diagnosis Clinic will evaluate the patient and look for factors that would immediately eliminate them from our student program, ie. Loss of vertical dimension and the patient will not be getting a complete denture and will make the final assessment if the individual's needs and case fit into the needs of the student program.

Texas A&M - Patients are screened through the Oral Diagnosis Clinic for acceptance into our pre-doctoral program.

University of Tennessee - The screening process involves dental students calling interested/prospective patients and arranging an information only session prior to a formal screening appt. The patient is screened, assigned to a student, appropriate radiography performed in Oral Diagnosis, followed by treatment planning in the Group.

LSU - A patient calls the school for treatment and is placed on a list that will be called and offered a screening appointment time. When the patient is called and arrives for this appointment, requirements for acceptance and treatment are given to the patient and the patient is escorted to the screening clinic where faculty from the Oral Diagnosis and Treatment Planning Department perform the actual screening with a Panoramic radiograph, medical history review, and limited oral exam performed. The faculty then decide if the patient meets the requirements for undergraduate care, post graduate care, or dismissal as "not a teaching case".

University of Oklahoma - Patients are screened in a separate Oral Diagnosis clinic by third and fourth year dental students supervised by faculty.

University of Texas Houston - Voluntary appointments in the Assessment clinic. Assessments performed by DDS students as part of a rotation. Each assessment period “assigned” to a specific practice group (i.e. patients accepted during that session get assigned to the designated practice group for that period).

University of Texas San Antonio - Screening is done in the faculty clinic and, as a rotation in the general practice groups. Students may see as many as five patients each 4 hour clinical session. Most of those screened on the rotation are admitted as patients either by the student doing the screening or another student in the group. Some patients will be referred to one of our specialty clinics. Our online screening application may

Provide numbers screened and yield if available – 9706 Screening codes were recorded in the last Year. Approximately 7,000 patients requested screening appointments on the website.

- i. Provide numbers screened and yield if available.

University of Mississippi – see *appendix*

Texas A&M - The OD Clinic appoints about 165 patients per week and of those, about 125 are actually screened per week when school is in session. They also screen about the same number during the four-week summer break utilizing student volunteers.

University of Tennessee – Unavailable

LSU – TBD

University of Oklahoma - Ten to twelve patients are screened during each screening session. There are screening sessions available during 9 half-day sessions per week.

University of Texas Houston – See *appendix*

- ii. Of the patients screened, approximately what is the yield of patients suitable for your pre-doctoral program?

Texas A&M - Of those screened, about 10% are actually good teaching cases for our pre-doctoral students. We accept 60-70% of those screened with some of these being referred to our graduate programs. Other patients that are accepted for our undergraduate student program may not be the best teaching cases, but do provide learning opportunities and clinical experience for our students while providing necessary treatment for these patients;

patients seeking treatment at our institution tend to have limited income and have neglected their teeth for a number of years.

- iii. Are you having difficulty finding suitable patients for your pre-doctoral program?

University of Mississippi - Finding the ideal patient is always a concern and a challenge for the student program. The one area we have concerns every year is endodontic procedures. Overall, we have been able to attract a sufficient number of patients with the mix of procedures we need to satisfy our present requirements.

Texas A&M - Yes. Unless students bring in their own “call patients”, the Oral Diagnosis Clinic does not see many patients who would otherwise seek treatment in private practice. Some of our students are active on social media recruiting patients; our institution is exploring the possibility of social media marketing but no information is available in this regard at this time.

University of Tennessee – No

LSU - Yes. Primarily in Pedo. To a lesser degree in Operative and Prosthodontics (Fixed and Removable).

University of Oklahoma - Yes. We definitely have some difficulty in finding patients that are suitable to provide a good learning experience for our students. We seem to lack simple cases for our first and second year students to diagnose and treat. We also seem to attract a large number of patients who present with treatment needs that are too advanced for most predoctoral students.

University of Texas Houston – Yes

University of Texas San Antonio – Yes, A few students have been unable to find the patients that they need to complete expectations. My impression is that the situation is a little better than in years past.

A lot of patients who request screening appointments show up with a need for urgent care.

- iv. If so, what are the main reasons?

University of Mississippi - The past downturn in the economy seemed to help our program. We started seeing a demographic,

middle class individuals that we had not previously attracted as dental patients.

Texas A&M - We may be marketing to the wrong population. Most of the patients reporting for screening have limited income and have neglected their dental needs for years. If more of the patients seeking treatment at our school were typical of those treated in private practice, we could accept a much higher percentage of those screened and have more patients in the pool for our students.

Perhaps our location is another factor considering travel costs and time as well as parking fees which must be borne by our patients. Corporate clinics also abound in our school's area and are in close proximity to our clinics.

LSU - Pedro: Increase of Medicaid reimbursement and Corporate Dentistry has influenced parents and care-givers to seek dental care away from the dental school.

Operative and Prosthodontics (Fixed and Removable): We have patients, but they are increasing in their complexity of treatment plan and medical condition.

University of Oklahoma - One major reason for our inability to attract simple cases is that patients do not wish to invest the time necessary to have this treatment completed at the dental college. Many patients today have dental insurance that will partially reimburse them for treatment. That, along with the fact that they will need to miss work for a much longer period time to be treated at the dental college makes dental care at the college less attractive. The reason that we see so many patients with advanced restorative needs may be because they cannot afford the treatment at a private office, or that they come to the college thinking that they will receive free dental care (although we make it very clear this is not the case).

University of Texas Houston - Anecdotally, the patient population has a higher percentage of patients with financial barriers and/or overly complex dental cases for the undergraduate dental student.

University of Texas San Antonio - Patients in need of dentures, simple endo, and crowns are the hardest to identify. Many patients lack the financial means to complete recommended treatment.

II. Cariology

A. Caries Control

1. What chemotherapeutics are you using for your moderate and high-risk caries patients?

University of Mississippi - We are using fluoride varnish, sodium fluoride toothpaste, stannous fluoride, and chlorhexidine. We also recommend patients using a fluoride OTC mouthwash and xylitol products (candies or gum).

University of Tennessee - Prevident™ (Sodium fluoride and Gelcam™ Stannous fluoride

LSU - Rx: Prevident 5000, Chlorhexidine, xylitol gum OTC, MI Paste

University of Oklahoma - 5% NaF pastes/gels, 5% Fluoride Varnish, Chlorhexidine rinse to some extent.

University of Texas Houston – Primarily fluoride

University of Texas San Antonio – No, but is a hot topic on the internet

- a. Do you use Carbamide Peroxide for caries control?

University of Mississippi – No, but we do state in the Esthetic course where the students learn about bleaching that carbamide peroxide does have anticariogenic properties.

Texas A&M – No

University of Tennessee – No

LSU – No

University of Oklahoma – No

University of Texas Houston – No

University of Texas San Antonio – No

- b. Do you use Sodium Diamine Fluoride for caries control?

University of Mississippi - Hoping you mean Silver Diamine Fluoride. It is not used in any of pre-doc dental clinic. The Pediatric Residency Program has been using it since late summer. Several pre-doc clinic have currently

ordered silver diamine fluoride and are looking at ways to implement its usage.

Texas A&M - Sodium Diamine Fluoride – No

University of Tennessee – No

LSU – Used in Pediatric Dentistry Clinic

University of Oklahoma – No

University of Texas Houston – We use Silver Diamine Fluoride in our undergraduate DDS and pediatric residency clinics.

University of Texas San Antonio - No

- c. What evidence do you have to support your use/non-use?

University of Mississippi - The use of the products we use comes from many peer-reviewed articles and professional experiences. The main reference is the November 2013 ADA Center for Evidence-Based Dentistry article “Topical fluoride for caries prevention: Full report and of the updated clinical recommendations and supporting systematic review.” Below is an *Appendix 1* from the above mentioned article.

Texas A&M - Issue of use has not yet been raised.

University of Texas Houston - Silver diamine fluoride has at least 5-6 randomized controlled trials demonstrating its efficacy in 1) arresting caries and 2) preventing future caries

B. Caries Removal

- a. Do you teach total or partial caries removal?

University of Mississippi - We teach total caries removal. We do teach that if caries is deep and it gets within 1 mm of the pulp that caries removal can be stopped at that point and an indirect pulp cap be placed using calcium hydroxide and glass ionomer liners.

Texas A&M - Both techniques are taught on a case by case basis as warranted.

University of Tennessee – Total caries removal. Students can use caries dye as an adjunct for caries removal.

LSU - Students are taught to always remove infected dentin. In deep carious lesion students are taught to leave affected dentin if it could result in a pulp exposure.

University of Oklahoma - We instruct students to remove all caries up to the point where they feel that a pulp exposure is eminent. We then ask them to make a decision on whether this is a suitable situation for an indirect pulp cap or continue further caries removal possibly resulting in either a direct pulp cap, endodontic procedure or extraction. This decision is based on the information attained from their observation of the caries remaining in the cavity, radiographic findings, and a review of the signs and symptoms reported by the patient or identified by diagnostic testing completed previously.

If a pulp exposure should inadvertently occur while removing caries, we ask the student to make the same decision as stated above in relation to initiating a direct pulp cap procedure. In addition to the criteria mentioned above for the indirect pulp cap, the student will also consider the size of the exposure and the ability to control hemorrhage from the exposure site.

University of Texas Houston - Partial. Generally speaking, in an asymptomatic patient, we teach 1) removal of demineralized tooth structure at the DEJ and unsupported enamel and 2) infected dentin up to 0.5 mm away from the pulp. Affected dentin on the axial and pulpal walls can be preserved.

University of Texas San Antonio – We continue to teach indirect pulp cap protocol where caries is left where removal would risk pulp exposure.

II. Materials and Techniques

a. Bulk Fill Composite Resin

1. Do you teach the use of bulk fill composite resin pre-clinically?

University of Mississippi – It is introduced in the preclinical setting through biomaterials.

Texas A&M - No, the use of bulk filled composite resin is not taught pre-clinically.

University of Tennessee – No

LSU - Bulk fill is discussed in the 3rd year operative lecture. Not available in pre-clinical lab.

University of Oklahoma – No

University of Texas Houston – No

University of Texas San Antonio – None in preclinical labs

2. Do you use bulk fill composite resin clinically?

University of Mississippi – Not at this time, but are considering Xtra base/fill for use in the faculty clinic as a trial. Tetric evoceram has been used in faculty practice.

Texas A&M - No, bulk fill composite techniques are not used in the D3 year.

University of Tennessee – No

LSU - Bulk fill composites not available in clinic. Core pastes are available in clinic.

University of Oklahoma – No

University of Texas Houston – We do have two bulk fills available for limited use.

University of Texas San Antonio - We have had limited experience with Surefil SDR in the clinic.

3. Which material(s) do you use?

University of Mississippi – Sonic fil trial give to previous chairman for trial use.

Texas A&M - Herculite is the primary material used in our clinic. Esthet-X and Z-100 are also available for use.

LSU – N/A

University of Oklahoma – N/A

University of Texas Houston – Filtek Bulk Fill Posterior, (3M) SureFil SDRflow+ (Dentsply)

4. What is your preferred technique for use?

University of Mississippi – Incremental fill technique.

Texas A&M - Incremental placement and curing.

LSU – N/A

University of Oklahoma – N/A

University of Texas Houston – Just being introduced into clinic

5. What evidence do you have to support your use/non-use?

University of Mississippi – Vandewalker JP, et al Properties of dual cure, bulk fill composite resin restorative materials, AGD March 2016

Texas A&M - We have not yet considered the use of bulk fill composites.

LSU – N/A

University of Oklahoma – Have not seen a preponderance of evidence that the use of this material would significantly improve the clinical outcome.

University of Texas Houston - Have not evaluated the literature or the actual product type.

III. Student Assessment

a. Clinical Grades

1. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

University of Mississippi – Rubrics for each preclinical procedure and preclinical exams.

Texas A&M - Pre-clinical – Didactic exams, 6 practical exams, Clinical – 3 progress exams (33% each), electronic portfolio submission (1%). Next year will include student assessment for daily work and progress exams.

University of Tennessee - This depends upon the course director. Presently at UTCOD there is no universal grade scale for preclinical and/or clinical courses. However, in RESD, we utilize standard scales, i.e. 93-100, etc. (0-100) and 0-4 scales. All scales can translate into A, A-, B+, B, B-, C+, C, D, F letter grades.

LSU - In pre-clinical practicals students are graded on a scale of 1 to 4 (1 = superior, 2 = Very Good / Acceptable, 3 = Unacceptable / correctable, 4 = Unacceptable /

Irreversible) for each section of the preparation (outline form, pulpal depth, etc) and the restoration (marginal integrity, finish, etc). A grade total is averaged for the preparation and the restoration separately. A grade overall average of 1 would be a 100 = A, an overall average of 2 would be an 80= B, an overall average of 3 would be a 60 = F. A 4 on any section of the practical results in an overall failure (4 = 40). There are separate grades for a preparation and restoration.

In clinic the same scale is used (1 to 4). The student must pass the preparation and the restoration to get a passing grade on a competency.

University of Oklahoma - We evaluate students on their daily clinical procedures and their clinical skills assessment examinations. They are evaluated in five main areas: Isolation, Ideal Preparation, Final Preparation, Insertion, and Professionalism/Self T Evaluation. These areas are evaluated based on the grading criteria provided for each graded portion of the exam. The students are assigned an evaluation of Excellent (90-100), Good (80-90), Minimally Acceptable (70-80), or Critical Error (50 for entire procedure) for each of the graded portions of their procedure. The grade for the procedure is established by averaging the grades for the five grading areas. A grade of "Critical Error" in any of the graded portions of the procedure results in an overall evaluation of failure (50) for that entire procedure.

University of Texas Houston - Clinical course grades generally consist of points generated by performing daily procedures and passing procedure-specific competency assessments. Both a minimum point total for the discipline as well as passing scores on all competency assessments must be achieved in order to pass a clinical course. Pre-clinically, evaluation can vary. Generally, a series of daily projects must be satisfactorily completed, and practical examinations (as well as didactic examinations) must be passed.

University of Texas San Antonio - Currently developing an electronic method for daily and monthly grading with a student self-evaluation component for daily procedures.

2. Are students evaluated (graded) on their daily clinical procedures?

University of Mississippi – No, not presently

Texas A&M - Students are not graded on their daily clinical procedures but they are given qualitative assessments (QAs) on these procedures.

University of Tennessee – Yes

LSU – Yes

University of Oklahoma – Yes

University of Texas Houston – Yes

University of Texas San Antonio - Yes

i. If so, what metrics or methods are used?

University of Mississippi – Rubrics are used for clinical competency exams, we are beginning to use the same for self-evaluations at the time of exam.

Texas A&M - Students are evaluated using the QA form in the following areas: Professionalism, Procedure Management, Skills and Traits, Patient Management, Cavity Preparation, and Finished Restoration. For indirect restorations, there are additional evaluations for: Tissue Management, Impressions, and Provisional Restoration

University of Tennessee - A, B, C, D, F scale.

LSU - The same grade scale is used for daily procedures as for competencies. Students have a minimum number of quality points (preparation plus restoration grade) to meet requirements for specific operative procedures (ex. Class 2 amalgam).

University of Oklahoma - We provide students with specific grading criteria for each type of procedure, and details of what is expected for an ideal outcome along with details of common reasons for receiving a “Critical Error” evaluation.

University of Texas Houston – Simple five-point scale

University of Texas San Antonio – Will provide copies. We will be prepared to demonstrate the current programs in development for grading and associated rubrics.

ii. Provide Rubrics if available. *See Appendix*

IV. Administration

a. Organizational Structure

1. What is the name of the major decision making body within your school?

University of Mississippi – School of Dentistry Executive Committee

Texas A&M - The Administrative Council

University of Tennessee - Ultimately, the Dean's Office

LSU - The Administrative Council, composed of all School of Dentistry department heads, chief administrators, directors, and program coordinators, is the governing body for the School. This Council acts on all faculty appointments and promotions involving tenure, student promotions, and school policy. The Faculty Assembly (with a "Board of Governors" called Delegates). The purpose of the Faculty Assembly is to 1) serve as a representative voice of the faculty where Faculty members vote on changes to school policy and major changes to the curriculum in Faculty Assembly; 2) provide a means of communication and make recommendations to the Dean; 3) share responsibility towards accomplishing the mission of the LSUHSC-School of Dentistry; and 4) maintain a liaison with the Chancellor. The Assembly also has a role in establishing assignments to the Standing Committees of LSUSD as well as the formation of various Ad Hoc Committees.

University of Oklahoma - The major decision-making body at our college is the Dean's Advisory Council, which is made up of the Dean and the Assoc/Asst. Deans of: Admissions and Student Affairs; Research and Advanced Programs; Quality Assurance and Compliance; Clinical and Preclinical Education; Academic Affairs; and Finance and Administrative Affairs.

University of Texas Houston – I consider there to be two decision making bodies, the Admin Council for the administrators, and the Faculty Senate for the faculty.

University of Texas San Antonio - The Clinical Enterprise Committee seems to be the driver of clinical services. It was involved with the design of the new clinical building and working out the details of supply, sterilization, traffic flow etc.

2. Who sits on this Council, Committee, and Board?

University of Mississippi – Dean, all School of Dentistry and Dental Hygiene Department Chair, Associate and Assistant Deans and SOD Directors.

Texas A&M - The Administrative Council is composed of Associate Deans, Department Heads, the Executive Director of Advancement, Communications and Alumni Relations and the Executive Director of Student Development and Multicultural Affairs.

University of Tennessee – it is composed of Dean, Associate Deans, and Chairs.

LSU - The Administrative Council: Dean, Assistant Deans, Department Heads, and Program Directors. The Faculty Assembly (with a "Board of Governors" called Delegates): Faculty Assembly is comprised of all LSUSD faculty (full and part-time. The Delegates are selected by nomination and election each school year.

University of Texas Houston - Admin council is made up of the associate deans, the department chairs, manager of faculty practice, personnel manager, PACE coordinator, Senate President and invited guests.

The senate is made up of elected departmental representatives from all departments. Departmental representation is determined by the number of a departments FTE's.

University of Texas San Antonio – Most of the members of the Administration and a few faculty members were selected to participate.

3. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

University of Mississippi – Dean (1), Associate Dean (2), Assistant Dean (3), SOD Chair (8), Dental Hygiene Chair (1), and Directors (3).

Texas A&M - We have five Associate Deans, eleven Department Heads, and two Executive Directors. Within each department, there are various clinic program/course directors as well.

University of Tennessee – We have four Associate Deans, one Senior Executive Associate Dean, two Assistant Deans, one Committee Chair, eight chairs, and two Interim Chairs.

LSU – We have one Dean, four Associate Deans, one Assistant Dean, eight Department Heads, and nine Program Directors.

University of Oklahoma - There are 7 Deans, 5 Division Chairs, 12 Department Chairs at our college, and 5 Graduate Program Directors.

University of Texas Houston – Eight Associate Deans and eight Department Chairs

University of Texas San Antonio – There is the Dean (1), Associate Deans (5), Assistant Deans (3), Chairs (5), and Director (1).

4. Provide school organizational tree if available. *See Appendix*

V. Ethics and Professionalism

a. Social Media

1. Have you had any student conduct issues related to the improper use of Social Media?

University of Mississippi - We have had one incident with social media where a student posted an ad of sorts asking for patients and saying that the student would pay for the cost of the patients' treatment. The student was counseled and the ad was removed from social media.

Texas A&M – No

University of Tennessee - Yes. Inappropriate information on social media sites

LSU – None known

University of Oklahoma – Yes

University of Texas Houston – None publicly known, although periodic warnings are sent out regarding photography of clinical cases

2. How do you inform the students of their professional responsibilities?

University of Mississippi - During orientation, students are informed of the Policy on Ethical Conduct, Civility, and Professional Behavior for Dental Students found in the School of Dentistry Student Handbook. At that time, they sign a document stating they have been made aware of the policy and will abide by said policy. In a more formal setting, D1 students sign this same ethics policy collectively during the Ethics Signing Ceremony. At the beginning of each school year, students from all other classes sign a form to endorse and affirm the principles contained in this policy.

Texas A&M - D1, 3, 4 year ethics courses, D3 - Introduction to Academic Integrity, D3 - Dental related ethics, and D4 - Case studies with outside speakers.

University of Tennessee - Offices of Academic and Student Affairs

LSU - The Assistant Deans of Student Affairs and Clinic inform/remind them of their professional responsibilities each year at their class orientation that are found in the official Student Handbook and Clinical Policy guidelines. Additionally these responsibilities are discussed in their Professional 1 through 4 courses.

University of Oklahoma - Periodically an email reminder will go out about this, and there is policy in the Clinic Policies Manual but it is focused on protecting the patient's privacy not specifically relative to social media. This has recently been discussed in the Dean's meetings, and information in regard to it has been included in all course syllabi and is specifically addressed in the Clinic Policies Manual. This issue is also addressed at orientation sessions with the various classes.

University of Texas Houston – Orientation and clinic manual

University of Texas San Antonio – Ethics courses are conducted for Freshman and Junior students. A Jurisprudence course is conducted in the senior year.

3. What specific rules/guidelines do you have in place?

University of Mississippi - The policy and disciplinary procedures can be found in the student handbook. *See Appendix*

Texas A&M – None

University of Tennessee - Policy on Student Classroom Activities

It is a guiding principle of the College of Dentistry that students attend class for the purpose of learning the information being taught and/or mastering the psychomotor skills that are necessary to practice dentistry. While in class (including laboratories), students are not to study or review other information that is not germane to the specific material being presented. Students may only use written media or any electronic devices (including, but not limited to, cell phones, PDA's, computers or other internet-capable electronics) during class to assist in learning the specific topics being presented in class or labs. Any use of the UT computer network must be in compliance with the University of Tennessee's Information Technology Acceptable Use policy. Faculty members may prohibit the presence or use of any written media or any electronic device in their class or laboratory if they believe that those items may be a distraction from the teaching and learning process. Violation of any of this policy will be considered unprofessional conduct and an ethical breach. Office of Student Life: Honor Code

LSU - The Student Handbook and Clinical Policy Guidelines: Chancellor's Memorandum #42 (CM-42) on pg 34. Examples are:

* Prevent misuse of Protected Health Information (PHI) which includes health information that is associated with at least one of eighteen identifiers that make the information "individually identifiable." The eighteen identifiers specified by HIPAA include name, address, SSN, date of birth, date of health care, and other elements. Health information about groups of people (population data, mean and median data, aggregate data, etc.) that cannot be related to individuals is not PHI.

* Obtain or attempt to access the files or electronic mail of others unless authorized by the owner or as required for legitimate business need, security issues, or investigative purposes. Disclosure of any information obtained must abide by existing policy, laws, and regulations.

* Harass, intimidate, or threaten others through electronic messages.

* Construct a false communication that appears to be from someone else.

* Send or forward unsolicited E-mail to lists of people you do not know.

* Send, forward, or reply to E-mail chain letters.

- * Initiate or retransmit virus hoaxes.
- * Create or transmit (other than for properly supervised and lawful research purposes) any offensive, obscene or indecent images, Data or other material, or any Data capable of being resolved into obscene or indecent images.
- * Store unencrypted User IDs and passwords which allow access to the SYSTEM IT Infrastructure on mobile devices.
- * Leave SYSTEM-owned mobile devices unattended.

Enforcement of Chancellor's Memorandum #42 (CM-42): The unauthorized or improper use of the SYSTEM IT infrastructure, including the failure to comply with this Policy will subject the violator to loss of privileges, disciplinary action, personal liability and/or criminal prosecution. In addition, LSUHSC may require restitution for any use of service which is in violation of this Policy.

University of Oklahoma: *See Appendix*

University of Texas Houston – No specific social media policy

University of Texas San Antonio – I know what is taught in the Ethics and Jurisprudence since I am now Course director for these three Courses. I don't know what is taught in Practice Management or other courses conducted by Dr. Glass.

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other?
 - **Texas A&M Health Science Center** - CaMBRA
 - **University of Texas Houston** - CaMBRA
 - **University of Tennessee** - Use a modification of the CaMBRA system, identified as “Caries Risk Assessment”. This system or form, located in AxiUm is utilized for all patients receiving treatment. Primary and secondary risk factors are identified, with a final diagnosis of: Low, Moderate, or High caries risk attributed to each patient.
 - **Louisiana University** - Use CaMBRA, AAPD CRA – Pediatric Dentistry
 - **University of Mississippi Medical Center** – Use American academy of pediatric dentistry. We use a modified form of CaMBRA in periodontics and prevention. There is only low or high risk category.
 - **University of Oklahoma** teach students to utilize the philosophies promoted by CaMBRA and ICDAS for risk assessment and caries management.
2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?

- **Texas A&M Health Science Center** - Mostly taught in Public Health as part of Preventive Dentistry.
- **University of Texas Houston** - Operative and Public Health
- **University of Tennessee** - Caries risk management is taught, formally, in Periodontology (Pathophysiology - Cariology) and in Oral Diagnosis lecture and preclinical courses.
- **Louisiana University** - Microbiology (D1 cariology lectures in microbiology), Pediatric Dentistry
- **University of Mississippi Medical Center** - Preclinical pediatric Dent., Methods I D1 course. All patients have caries risk assessment and all treatment plans must provide plan for caries risk management. This is taught in all periodontics courses.
- **University of Oklahoma** - Mainly Operative Dentistry

b. In which courses is caries risk assessment taught?

- **Texas A&M Health Science Center** - Public Health D2 Operative Dentistry
- **University of Texas Houston** - DENF 1934 Prevention of Oral Diseases DEPF 2614 Operative Dentistry II - Simulation
- **University of Tennessee** - Caries Risk Assessment information presented in didactic and preclinical courses is then followed by special forms completed by all patients for future clinical purposes.
- **Louisiana University** - Microbiology First year, Pediatric Dentistry D2 didactic lecture
- **University of Mississippi Medical Center** - Same as above Periodontics and prevention.
- **University of Oklahoma** - Second year Operative Preclinical Course

c. Is the teaching consistent across courses and disciplines?

- **Texas A&M Health Science Center** - Mostly , yes
- **University of Texas Houston** - Yes, however only formally taught in two courses
- **University of Tennessee** - Yes, teaching of this concept is consistent in all courses for future application in the clinical scenario.
- **Louisiana University** - Yes for adults – material taught in D1 is reviewed in Operative D2 and D3 courses, Children and adolescents in Pediatric Dentistry
- **University of Mississippi Medical Center** - Unsure
- **University of Oklahoma** - Fairly consistent, less so in our 4th year comprehensive care clinics.

3. How does caries risk assessment manifest in the clinic?

a. How is caries risk assessed and documented in patient records?

- **Texas A&M Health Science Center** - Oral Disease and Risk Assessment (ODRA) form in patient record. Filled out by student and checked by Preventive faculty.
- **University of Texas Houston** - Form in electronic health record.
- **University of Tennessee** - A "Caries Risk Assessment" form is completed (AxiUm), in Oral Diagnosis, by all registered patients.
- **Louisiana University** - Third year clinic – electronic form in Axiom Pediatric Dentistry: In comprehensive exam form for recalls and new patients students ask about diet and oral hygiene, complete CRA and list factors for why they have that designation
- **University of Mississippi Medical Center** - AAPD risk assessment is filled out at each exam, discussed with the student and student discusses with parent. A questionnaire and form in the record for all adult dentate patients.
- **University of Oklahoma** - Every patient has a caries risk assessment completed as part of their clinical work-up. The risk assessment is presented to a faculty member as part of their proposed treatment plan. The Caries Risk Assessment instrument is located in forms section of our clinical software.

b. Do students medically manage caries when indicated?

- **Texas A&M Health Science Center** - Yes. By risk assessment, plaque control, fluorides (PreviDent 5000), diet control, antimicrobials (.12% chlorhexidine), sealants and salivary control when possible. Mostly depends on patient involvement and cooperation. Treatment depends on patient assessment and must be tailored to the individual patient.
- **University of Texas Houston** - In theory yes. In practice, usually no.
- **University of Tennessee** - Caries Risk Assessment information presented in didactic and preclinical courses is then followed by special forms completed by all patients for future clinical purposes.
- **Louisiana University** - Student primary goal is meeting requirements (restorations completed). A few students are more proactive and medically manage patients. Students do prescribe Prevident 5000 and CHX. MI paste can be purchased at the school.
Pediatric Dentistry: sealants, CHX, OHI and dietary counseling is provided
- **University of Mississippi Medical Center** - Yes, with fluoride various ways and sodium diamine fl. We assess risk for caries from medications and

systemic illnesses. We frequently prescribe home use 1.1% NaF dentifrice and apply fluoride varnish when indicated.

- **University of Oklahoma** - Students carry out preventive treatment through patient education, chemical applications and adhesive barriers. Their goal is to prevent future caries, reverse affects of caries, and reduce caries activity.

c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis?

- **Texas A&M Health Science Center** - Yes, by most faculty members. Conflicting opinions do exist.
- **University of Texas Houston** - In theory yes. In practice, usually no.
- **University of Tennessee** - Yes. Caries risk assessment can provide answers for the usage of appropriate restorative intervention based upon the etiology of the lesion. Receiving detailed information from the patient regarding this topic can expose the dental student to different preventive treatment modalities prior to possible restorative correction. Medications taken by the patient can provide clues for the etiology of particular destructive lesions. Again, prevention strategies, prior to intervention, can be presented to the patient.
- **Louisiana University** - Minimal. Majority of patients treated at LSU are very high risk for caries. Patients require extractions that are not always accomplished before patients seen for operative treatment.
- **University of Mississippi Medical Center** - A little; Yes we are very aware of high caries risk and risk for rapid loss of teeth due to root caries.
- **University of Oklahoma** - Yes, to some degree. Certainly can still be improved.

4. How is competency in caries risk assessment and management assessed over the four years of the curriculum?

- **Texas A&M Health Science Center** - Patient treatment is phased and sequenced according to risk assessment. Students do the phasing and sequencing in conjunction with group leaders. No grade is given for this area of treatment planning.
- **University of Texas Houston** - No formal mechanism in place to assess competency over the four years of the curriculum.
- **University of Tennessee** - During the "Disease Control Evaluation" (final appointment) stage of patient treatment, students completely evaluate the patients intraoral and extraoral status, followed by inspection by the attending faculty member. The student is then assessed for competency based upon their original treatment plan, caries risk assessment, diagnoses, and treatment/s.

Individual instruction, if necessary, is provided by the attending (Group Leader) faculty to the student for future knowledge base.

- **Louisiana University** - Junior competency in Oral Diagnosis
- **University of Mississippi Medical Center** - Competencies in periodontics for diagnosis and treatment must include proper caries risk management.
- **University of Oklahoma** - Competency in this is evaluated as a portion of their grade for each Operative treatment plan presented to faculty.

5. How does caries risk assessment manifest in the faculty practice at your institution?

- **Texas A&M Health Science Center** - There is no faculty practice at TAMU College of Dentistry.
- **University of Texas Houston** - Depends on individual practitioner.
- **University of Tennessee** - All registered patients at UTCOD receive caries risk assessment/management services, including appropriate education resources and treatment application.
- **Louisiana University** - On an individual faculty basis; most use clinical judgment instead of a form such as CAMBRA
- **University of Mississippi Medical Center** - Depends on each practitioner
- **University of Oklahoma** - The use of caries risk assessment varies widely between the individuals in our faculty practice. There is no uniform formal caries risk assessment form being utilized in Faculty Practice.

APPENDIXES

University of Mississippi Medical Center

Appendix

Social Media policy taken from 2016-2017 University of Mississippi School of Dentistry Student Handbook

C. Policy and Guidelines for Personal Use of Social Media* (1/9/2014)

SCOPE: This policy applies to all employees, students, contractors and volunteers as it relates to their employment, academic, or business relationship with the University of Mississippi Medical Center (UMMC).

For the purpose of this policy, “personal use” is defined as social media activity using your own personal or professional social media accounts.

UMMC-affiliated entities, including schools, clinics, departments, practices, groups, etc., use of social media are not regulated by this document. For questions regarding 57

University of Mississippi School of Dentistry Rubrics: Samples enclosed

Caries I

- Class I prep
- Class I amalgam restoration
- Class I composite restoration
- Class V prep
- Class V composite restoration
- Class III preparation
- Class III composite restoration
- Class II preparation Mo, DO, MOD, MOli
- Class II amalgam restorations MO or Do / MOD/ back to back
- Class III composite restorations MO/DO/MOD/MoLi

Esthetic Problems Course- direct composites

- Anterior wax up
- Smile analysis
- Class IV
- Class III
- Make a tooth

- Peg lateral
- Diastema closure
- Veneer
- Shear bond strength
- Whitening Trays
- Class II posterior MODBL cusp replacement composite build up

Caries III- Indirect restorations

- Complex amalgam prep and pin
- Cast metal prep #30
- Cast metal prep #14
- Provisional crown #3 or #14
- #3 Zirconia crown prep
- Provisional crown #19 or #30
- #19 Zirconia crown prep
- Mounted Cast Evaluation

Clinic

- Operative Clinic Amalgam Class I or Class II competency
- Operative Clinic Composite Class II, III, V competency

Veneer Exercise Preparation and Restoration Rubric for Esthetic Problems Name _____

	1- Adequate	2- Exemplary	Total points
Teeth are prepped to proper reduction on facial, interproximal, and incisal.	NO- prep is over reduced or underreduced in incisal, mesial, distal, or facial dimension.	Prep is reduced 1.5 incisal reduction, 0.5-1mm facial reduction, and open interproximally if diastema is to be restored. For Veneer, proper reduction in interproximal to hide margins	
Restoration has proper contours and anatomy	NO- line angles are off Too thin or thick on incisal area, embrasure spaces too large or too closed.	YES- proper line angles Incisal thickness from occlusal view. Proper arch form. Embrasure space adequate	

Margins and Surface Finish	Areas of defect in margin or surface, one void. Areas of flash.	Proper surface finish, no pitting or defects. No flash or voids.	
Interproximal Contact	Contact shreds floss, if midline restored- canted or shifted.	Proper contact restored, If midline restored proper alignment achieved.	
adjacent teeth	Damage can be polished out	No Damage to adjacent tooth structure. Gingival also in tact.	







Total Possible= 10 points

Appendix 1 – Clinical Recommendations – detailed presentation

Topical Fluoride Agent	Age Group or Dentition Affected			
	Younger than 6 Years (Primary teeth)	6-18 Years (Mixed dentition)	Older than 18 Years (Permanent Teeth)	Adult Root caries
Varnish, 2.26% fluoride	Every 3 to 6 months (In Favor)	Every 3 to 6 months (In Favor)	Every 3 to 6 months (Expert Opinion For)	Every 3 to 6 months (Expert opinion For)
Varnish, 0.1% fluoride	Not recommended (Against)	Not recommended (Expert Opinion Against)	Not recommended (Expert Opinion Against)	Panel unable to make recommendation
Professionally-applied 1.23% fluoride (APF) gel	Not recommended (Expert Opinion Against)	4 ¹ minutes every 3-6 months (In Favor)	4 ¹ minutes every 3 to 6 months (Expert Opinion For)	4 ¹ minutes every 3 to 6 months (Expert Opinion For)
Prophylaxis prior to 1.23% fluoride (APF) gel application	Not necessary for caries prevention (Expert Opinion Against)	Not necessary for caries prevention (Against)	Not necessary for caries prevention (Expert Opinion Against)	Panel unable to make recommendation
Fluoride foam (1.23% fluoride as APF)	Not recommended (Expert Opinion Against)	Not recommended (Expert Opinion Against)	Not recommended (Expert Opinion Against)	Panel unable to make recommendation
Prophylaxis paste containing fluoride	Not recommended for caries prevention (Expert Opinion Against)	Not recommended for caries prevention (Against)	Not recommended for caries prevention (Expert Opinion Against)	Panel unable to make recommendation
Prescription-strength (0.5% fluoride), home-use fluoride products (gel, paste)	Not recommended (Expert Opinion Against)	Twice daily (Expert Opinion For)	Twice daily (Expert Opinion For)	Twice daily (Expert Opinion For)
Mouthrinse, 0.09% fluoride	Not recommended (Expert Opinion Against)	At least weekly (In Favor)	At least weekly (Expert Opinion For)	Daily (Expert Opinion For)

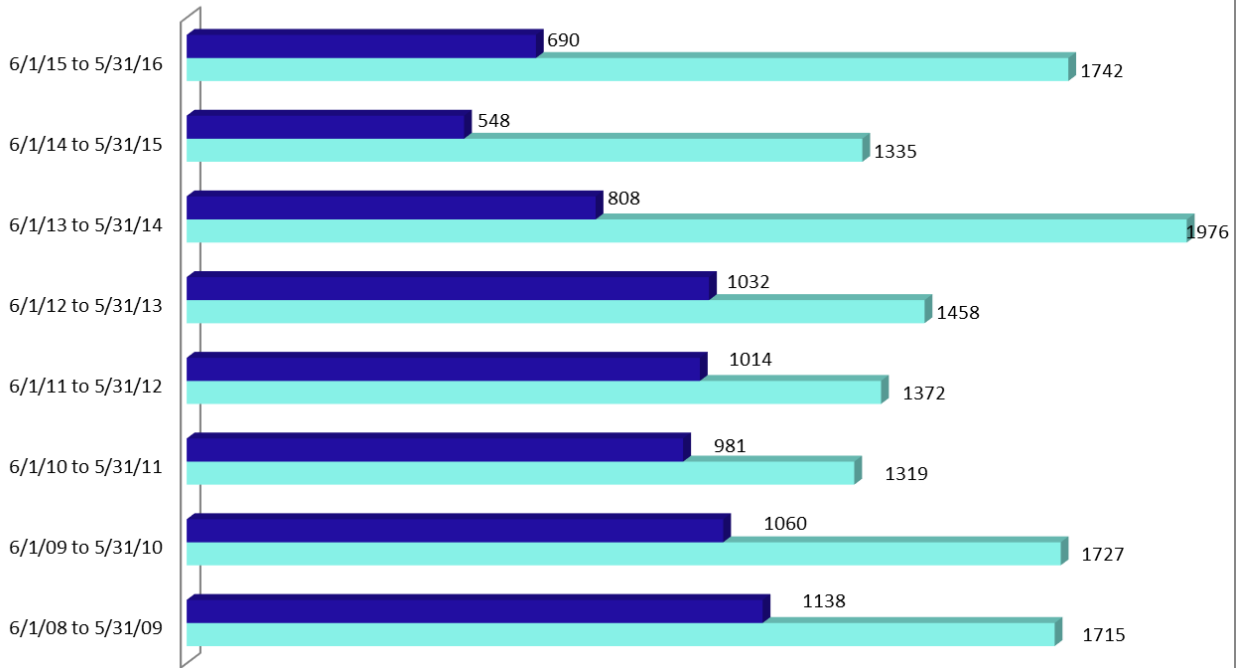
¹No studies tested APF gel for less than 4 minutes.

Table cell color legend.

 Strong Evidence strongly supports providing this intervention	 In favor Evidence favors providing this intervention	 Weak Evidence suggests implementing this intervention only after alternatives have been considered	 Expert Opinion For Evidence is lacking; the level of certainty is low. Expert opinion guides this recommendation	 Expert Opinion Against Evidence is lacking; the level of certainty is low. Expert opinion suggests not implementing this intervention	 Against Evidence suggests not implementing this intervention or discontinuing ineffective procedures
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**School of Dentistry
Screening Appointments and Patients Accepted
June 1, 2009 through May 3, 2016**

■ Number of patients accepted into program ■ Number of screening appointments



Evaluator:
Student Name:
Tooth #:

Date:

Class V- Preparation	4- Excellent	3- Good	2- Marginally Acceptable	1-Not Acceptable	0- critical Error	
Outline and Extension	Outline form is smooth and is properly prepared for this tooth a. Occlusal wall inc. bevel 4.25mm b. Gingival wall 3.25mm c. M/D walls 2.25mm including bevel d. Trapezoid shape; follows tooth contours e. outline form smooth f. correct position on tooth	Outline form is smooth and is properly prepared for this tooth a. Occlusal inc. bevel 4-4.5mm b. Gingival 3-3.5mm c. M/D 2-2.5mm inc bevel d. Trapezoid shape; follows tooth contours e. outline form smooth f. correct position on tooth	a. Misplaced: M-D; O-G b. outline form not smooth c. Gingival margin not 1-2mm from gingival crest d. O-G >2.5 but less than 3.0	Outline is .5 mm too large or too small a. occluso gingival b. Gingival wall c. occlusal wall	Outline is excessive in any dimension; Outline is rough	
Cavosurface Margins	All walls form a 90 angle with external tooth surface prior to beveling.	Cavosurface angle 90 + or - 5; Cavosurface angle not smooth in one area.	Cavosurface angle 90 + or - 10; Cavosurface angle is rough.	Cavosurface angle 90 + or - 15.	Cavosurface margins are <75 or >115	
Resistance Form	Mesial and distal walls diverge appropriately and terminate at right angles to the external surface.	Mesial / Distal walls are not divergent or are parallel to each other.	Mesial/ Distal wall diverges excessively or are convergent.	Mesial/Distal walls are nonexistent.	Form obliterates prep	
Axial	Axial depth is 1.25mm at the gingival and 1.75mm at the occlusal, measured from the cavosurface margin to the axial wall Axial wall is curved and parallel to the external surface of the tooth.	Axial depth is 1-1.5mm at the gingival and 1.5-2mm at the occlusal, measured from the cavosurface margin to the axial wall Axial wall is curved and parallel to the external surface of the tooth.	Dimensions are accurate, Axial wall is flat.	Axial wall is shallow <1mm at gingival or <1.5 at occlusal Axial Wall is deeper than 1.5 mm at the gingival or 2 mm at the occlusal. Axial wall is concave and rough.	Axial wall is ill defined or excessively shallow or excessively deep in any area.	
Retention	Retention grooves bisect the gingivoaxial and occlusoaxial line angles if axial depth is optimum. Retention grooves are correct in width, length, depth. Retention form : Occlusal and gingival walls are at right angles to the external surface,	Grooves a. Too far axial at gingivoaxial; occlusoaxial b. Too far facial at gingivoaxial; occlusoaxial c. Axial wall depth precludes placement of grooves Gingival/ occlusal wall diverges slightly or slightly converges.	a. Too wide: O,G; Too long: O,G; Too short: O,G b. Too deep: O,G; Too shallow: O,G; Gingival/ occlusal wall converges or diverges excessively.	Groove has broken a wall. Groove is in wrong direction Gingival/ occlusal wall form compromises tooth,	No attempt to place grooves Walls obliterate form of prep	
Bevel	Margins are beveled appropriately 0.25- 0.5mm And are smooth and continuous.	a. Bevel is 0.5 mm(+/- 0.25) b. Gingival margin beveled c. Bevel is not smooth and continuous	Bevel is .76-1.25 or less than .25 in any area.	Bevel is excessive > 1.5 at any area .No Bevel present or not detectable,	Bevel compromised integrity of tooth	

Evaluator:

Student Name:

Date:

Tooth #:

Class V Restoration	4- Excellent	3- Good	2- Minimally Acceptable	1-Not Acceptable	0-Critical Error	
Marginal Integrity	Margins are flush	a. single area of Flash: F;L; I;G b. Single area where Margin is minimally submarginal (ditched): F;L; I;G	2 or more areas of flash are present F;L; I;G	Several areas of Ditching	Any Open Margin	
Contour	Original contours and anatomy are restored.	Overcontoured But anatomy restored.	Undercontoured slightly	Undercontoured excessively Grossly overcountoured	Contour incorrect/ has changed shape of tooth.	
Surface Finish	Restoration is properly finished.	Proper surface not attained.	Visible bur marks on surface.	a. One void present b. Rough finish	Multiple voids	
Proper Use of Materials	Handles and uses composite materials accurately.	White bubbles beneath surface of composite.	Adhesive present on restoration surface.	Black specks incorporated into restoration.	Compromised composite resin	
Misc	Preparation is adequate prior to restoration. No Damage to adjacent tooth. Dentoform is free of water and debris.	Tooth or Typodont is not clean.	Adjacent tooth damage- area can be polished without contour change. Damage to Gingival tissue.	Adjacent tooth damage will require restoration or significant change.	Damage has compromised integrity of tooth.	

>	Deductions:	Additional prepped or restored teeth in dentoform -10 pts	0-5 min late -10 pts	5-30 min late -25 pts Wrong tooth or surface			
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Critical Errors (automatic failure) are noted in Bold

Veneer Exercise Preparation and Restoration Rubric for Esthetic Problems Name _____

	1- Adequate	2- Exemplary	Total points
Teeth are prepped to proper reduction on facial, interproximal, and incisal.	NO- prep is over reduced or underreduced in incisal, mesial, distal, or facial dimension.	Prep is reduced 1.5 incisal reduction, 0.5-1mm facial reduction, and open interproximally if diastema is to be restored. For Veneer, proper reduction in interproximal to hide margins	
Restoration has proper contours and anatomy	NO- line angles are off Too thin or thick on incisal area, embrasure spaces too large or too closed.	YES- proper line angles Incisal thickness from occlusal view. Proper arch form. Embrasure space adequate	
Margins and Surface Finish	Areas of defect in margin or surface, one void. Areas of flash.	Proper surface finish, no pitting or defects. No flash or voids.	
Interproximal Contact	Contact shreds floss, if midline restored- canted or shifted.	Proper contact restored, If midline restored proper alignment achieved.	
adjacent teeth	Damage can be polished out	No Damage to adjacent tooth structure. Gingival also in tact.	

Total Possible= 10 points _____

Evaluator:
Student Name or Number:
Class 1 Occlusal Preparation #18 Occ

Date:

		EVALUATION CRITERIA				*Critical Errors	Score
		Excellent	Good	Marginally Acceptable	Unacceptable		
		4	3	2	1		
EVALUATED STEPS	DEPTH	Optimum depth 1.75mm \pm .25mm and uniform throughout preparation	Depth varies between 1.5 and 2.0 mm but not uniform	Depth varies with areas 1.0-1.5mm or 2.0-3.0 mm but not throughout entire preparation	Depth of preparation <1.0mm in area(s) or >3.0mm in area(s)	Depth in any area of preparation <.5mm or >3.5mm	
	OUTLINE	Outline form centered with original anatomy and includes all pits and grooves	Outline includes all pits and grooves with slight deviation to buccal or lingual in any one area (<2mm in length)	Outline placed buccal or lingual to original anatomy but includes all pits and grooves	Outline form does not include one or more pits or in preparation	Outline form misplaced. Groove(s) not included in preparation	
	CONVENIENCE FORM	Outline uniform width 1.0 to 1.25mm	Outline greater than 1.25mm in pit area(s) only	Outline greater than 1.25mm in isthmus of grooves between pits	Outline exceeds 1/2 distance from central groove to cusp tip in any area	Outline exceeds 2/3 distance from central groove to cusp tip in any area	
	RETENTION FORM	Buccal and lingual walls convergent	Area(s) of buccal and/or lingual walls perpendicular, but not divergent	Buccal or lingual wall divergent or not convergent; limited to single area <2mm in length	Buccal and/or lingual wall(s) divergent in multiple areas or in single area >2mm in length	Entire buccal or lingual wall divergent or prepared walls provide no retention	
	RESISTANCE FORM	Mesial and distal walls slightly divergent with 1.6mm of marginal ridge remaining Internal walls smooth and no sharp angles	Mesial or distal walls perpendicular or 1.0 -1.6mm of marginal ridge remains Mostly smooth internal walls	Mesial or distal wall divergent $\geq 10^\circ$ with 1.0-1.6mm of marginal ridge remaining Rough internal walls/ one sharp angle	Mesial or distal wall slightly convergent when 1.0-1.6mm of marginal ridge remains Grossly rough internal surface/ multiple areas of sharp angles	<1.0 mm of marginal ridge remains and/or marginal ridge grossly undermined	
	CAVOSURFACE MARGINS	Cavosurface margins 90° and smooth	Cavosurface margins $90^\circ \pm 5^\circ$ and/or an area of roughness is present	Cavosurface margins $90^\circ \pm 10^\circ$ and/or multiple areas of roughness are present	Cavosurface margins $90^\circ \pm 15^\circ$ or roughness in area severe, compromising restorability	Cavosurface margins greater than 75° or greater than 115°	
	> Deductions: Will be taken off entire final	Additional prepped or restored teeth in dentof orm -10 pts	0-5 min late -10 pts	5-30 min late -25 pts			

Critical Errors (automatic failure) are noted in Bold

COMPOSITE PLACEMENT, FINISHING, POLISHING				
A. Cavo-surface Integrity	Margin free of deficiency or excess	1 or 2 areas of marginal deficiencies	Multiple areas of marginal deficiencies	Cavo-surface marginal voids & resins need to be replaced
		1 or 2 areas of marginal excess	Multiple areas of marginal excess	Generalized excess and must be corrected to end of appointment
B. Restorative Surface	Smooth, free of defects	Minor surface irregularities	Multiple surface irregularities	Generalized surface irregularities, scratches, pits or voids.
C. Anatomy	Correct functional anatomy	Isolated excess anatomy Groove(s) deep Triangular ridge(s) overdefined	Generalized excessive anatomy	Excessive anatomy which weakens restoration
	Interproximal contact appropriate			Contact light or open
		Isolated insufficient anatomy Groove(s) or fossae shallow Triangular ridge(s) underdefined	Generalized insufficient anatomy	Anatomy must be corrected before delivery Too flat, Fractured Closed embrasures
	Occlusion correct		Occlusion slightly high on restoration but contact present on tooth areas	Occlusion high Restoration is the only contact in occlusion
D. Finishing/Polishing	Proper use of materials/ Excellent shade selection/ High luster achieved	Shade is off by 1-2 shades. Areas of dullness	Shade is off but not in a critical zone; Residual adhesive remains; Bur marks remain	Restoration will be refinished or redone in correct shade; Dull restoration, over polished, compromised restoration
TREATMENT MANAGEMENT				
A. Tissue Management	No soft tissue trauma	Minor soft tissue trauma at operative site	Moderate tissue trauma at operative site	Severe tissue trauma, or any tissue trauma remote from operative site
B. Isolation	Rubber Dam isolation is optimum; field is dry	Rubber Dam isolation is adequate; field is dry	Rubber Dam isolation is minimally adequate	Rubber dam isolation is inadequate, too wet field; rubber dam not used

Please note any critical errors selected from grayed out boxes will result in an automatic grade of 55% or 1.

Amalgam Criteria

AMALGAM CRITERIA

Student Name:

Full Time Faculty Evaluator:

Class I ____

Class II ____

Date Completed:

	Excellent 4	Acceptable 3	Minimally Acceptable 2	Unacceptable 1
OUTLINE FORM				
A. Access	Isthmus 0.8mm to 1.0 mm	Isthmus 1.00 - 1.25 mm	Isthmus 1.25 - 1.5 mm	Isthmus >1.5
	1/2 occlusal intercuspal distance	1/3 occlusal intercuspal distance	1/2 occlusal intercuspal distance	> 1/2 occlusal intercuspal distance
	0.5mm interproximal clearance (>0.25 and <0.75)	1 wall < 0.25 mm but contact broken 1 wall 0.76 mm - 1.0 mm	2 walls < 0.25 mm but contact broken 2 walls 0.76 mm - 1.0 mm	3 walls < 0.25 mm 3 walls < 0.25 mm 1 contact not broken
	Includes all non condensed fissures		1 wall < 0.25 mm and 1 wall > 0.76-1.0 mm	Non condensed fissures
B. Enamel Surface	No ridged tooth	Scratches on the adjacent tooth	Notched adjacent tooth with bur but can be smoothed without changing contour of tooth	Notched adjacent tooth with bur the contour of the tooth
C. Enamel Support	Smooth supported	Isolated area of irregularity at margin	Multiple area of irregularity at margins	Extreme rough
INTERNAL FORM				
A. Depth (deal)	0.5mm into dentin uniform depth following the DEJ	Slightly overcut in one area	Slightly overcut in multiple areas	>1.0mm into dentin or pulp exposed
	Pulpal 1.75mm pulpal (1.5 to 2.0mm), when necessary			Pulpal <1.5mm or >2.0mm
	Axial 1.50mm (1.25 to 1.75mm)			Axial <1mm or >2.0mm w
	Buccal and lingual walls converge occlusally 6 degrees	Buccal or lingual wall is parallel	Not prepared with the long access of the tooth (buccal or lingual tilt)	Significant over-convergence of enamel
B. Wall Organization	Smooth internal walls	Area(s) of rough internal wall		Disappearance of enamel
	Proximal walls converge occlusally and are perpendicular to the prox.	One proximal wall parallel occlusally	Multiple errors in wall orientation as described under the acceptable criteria. Identify the errors, and also circle this criteria	Sharp internal line
	Smooth transition of the occlusal and box (reverse curve)	Proximal wall not perpendicular (<90 >75.0)		Proximal wall < 75
	Gingival and pulpal walls follow DEJ & perpendicular to long axis of tooth	Transition of the occlusal and box (reverse curve) insufficient		Sharp transition from occlusal to
C. Retention Grooves	Axial wall parallel to the DEJ	Gingival or pulpal walls slope slightly		Gingival wall slopes more
	Axial wall parallel to the DEJ	Axial wall flat to the DEJ		Concave axial
	Axio-pulpal line angle beveled	Axio-pulpal wall not rounded sufficiently		Axio-pulpal line an
	1/2 diameter 16SL or 1/4 round bur	One groove shallow, other one correct	Both grooves shallow but retentive	Grooves are not retentive
A. Caries removal	If axial walls are ideal depth, grooves bisect the axio-cuspal line angles	One groove deep, other one correct	Both grooves deep / supported enamel	All are deep and unsupported
	If axial walls are > than 0.5 mm into dentin, placed only in proximal wall			Placed entirely in the
				Placed entirely in the proximal enamel
CRIES MANAGEMENT				
	All caries removed			Residual caries

Amalgam Criteria

CONDENSATION AND CARVING					
A. Cavosurface Integrity	Margin free of deficiency or excess	1 or 2 areas of marginal deficiencies	Multiple areas of marginal deficiencies	Cavosurface marginal voids must be replicated Generalized excess and must be of appropriate depth	
		1 or 2 areas of marginal excess	Multiple areas of marginal excess		Generalized surface irregularities or voids
B. Restorative Surface	Smooth, free of defects	Minor surface irregularities	Multiple surface irregularities	Excessive carving which will	
	Correct functional anatomy	Isolated excess carving Groove(s) deep Triangular ridge(s) overcarved	Generalized excessive carving		
C. Anatomy	Interproximal contact appropriate	Isolated insufficient carving Groove(s) or fossae shallow Triangular ridge(s) undercarved	Good contact, stress foss	Contact light	
	Occlusion correct		Generalized insufficient carving		Anatomy must be corrected be Too fat, Fractured,
			Occlusion slightly high on restoration but contact present on both areas		Occlusion is the only correct
TREATMENT MANAGEMENT					
A. Tissue Management	No soft tissue trauma	Minor soft tissue trauma at operative site	Moderate tissue trauma at operative site	Severe tissue trauma, or or air operative	
B. Isolation	Rubber Dam isolation is optimum, field is dry	Rubber Dam isolation is adequate, field is dry	Rubber Dam isolation is minimally adequate	Rubber dam isolation is inadequate Rubber dam no	

*Please note any critical errors seen on the above will result in an automatic fail

rev. 6/10/16 d

rev. 6/10/16 dl

*Please note any critical errors will result in an automatic

Evaluator:

Date:

Student Number:

Class II MoLI Restoration
Composite

EVALUATION CRITERIA					Score- Total Poss 20 pts
	Excellent	Good	Marginally Acceptable	Unacceptable	
	4	3	2	1	*Critical Errors
CAVOSURFACE INTEGRITY	Margins free of deficiency or excess or adhesive	Single area of marginal deficiency	Multiple areas of marginal deficiency and/or marginal excess	Generalized marginal deficiency or excess of facial or lingual cavosurface margin; adhesive remains in several areas of tooth	Wrong tooth restored Open margin/void; restoration replacement needed
	Restorative surface properly polished, defect free and smooth appearance upon examination	Single area of marginal excess small amount of adhesive present	Minor single surface irregularity present	Multiple surface irregularities	General surface irregularities, deep scratches, pits or voids; Restoration needs replacement
ANATOMY	Correct functional anatomy, normal anatomy and proper marginal ridge, proper lingual groove anatomy	Isolated excessive area, deep groove or fossae, triangular ridge undercontoured	Generalized excessive contouring, Generalized insufficient anatomy	Excessive anatomy that weakens the restoration	Fractured restoration
		Isolated insufficient or shallow area, Groove or fossae shallow, Triangular ridge overcontoured, lingual groove slightly under or over contoured	Occlusion contact slightly high on restoration but contact present on both areas, lingual anatomy partly on margin	No anatomy; must be corrected (Too flat) Improper restoration of marginal ridge (Too cervical)	Occlusion high, Restoration only contact in quadrant.
CONTACT	Contact optimum- waxed foss not used with under resistance. Proximal contact returns proper shape and position	Near optimal contact- waxed foss not used pass with near proper resistance	Barely adequate contact- waxed foss not used pass with near proper resistance	Improper contact- Manual resistance to loss or too light- default to fast/ass stress	Visibly open contact or contact that cannot get floss through
		Slight abnormal variation of proximal contour, shape and/or position of contact	Moderate variation of proximal contour, shape and/or position of contact	restoration of proximal contour - places contact in wrong position or shape A gingival overhang	
OTHER	Preparation is adequate prior to restoration. Proper use of matrix for restoration. Proper use of composite materials	Tooth or typodont not clean. Matrix adaptation was not adequate	Minimal adjacent tooth damage. Prepared or restored teeth present in dentiform; improper use of composite materials	Excessive soft tissue damage. Improper application of retainer and/or matrix. Prepared or restored teeth present in dentiform and effect occlusion	Adjacent tooth damaged preventing proper restoration without restoration of damaged tooth.
Deductions:					
Additional prepped or restored teeth in dentiform					-10 points
0-5 min late					-10 points
5-30 min late					-25 points

Critical errors will result in total grade not higher than 55

Evaluator:

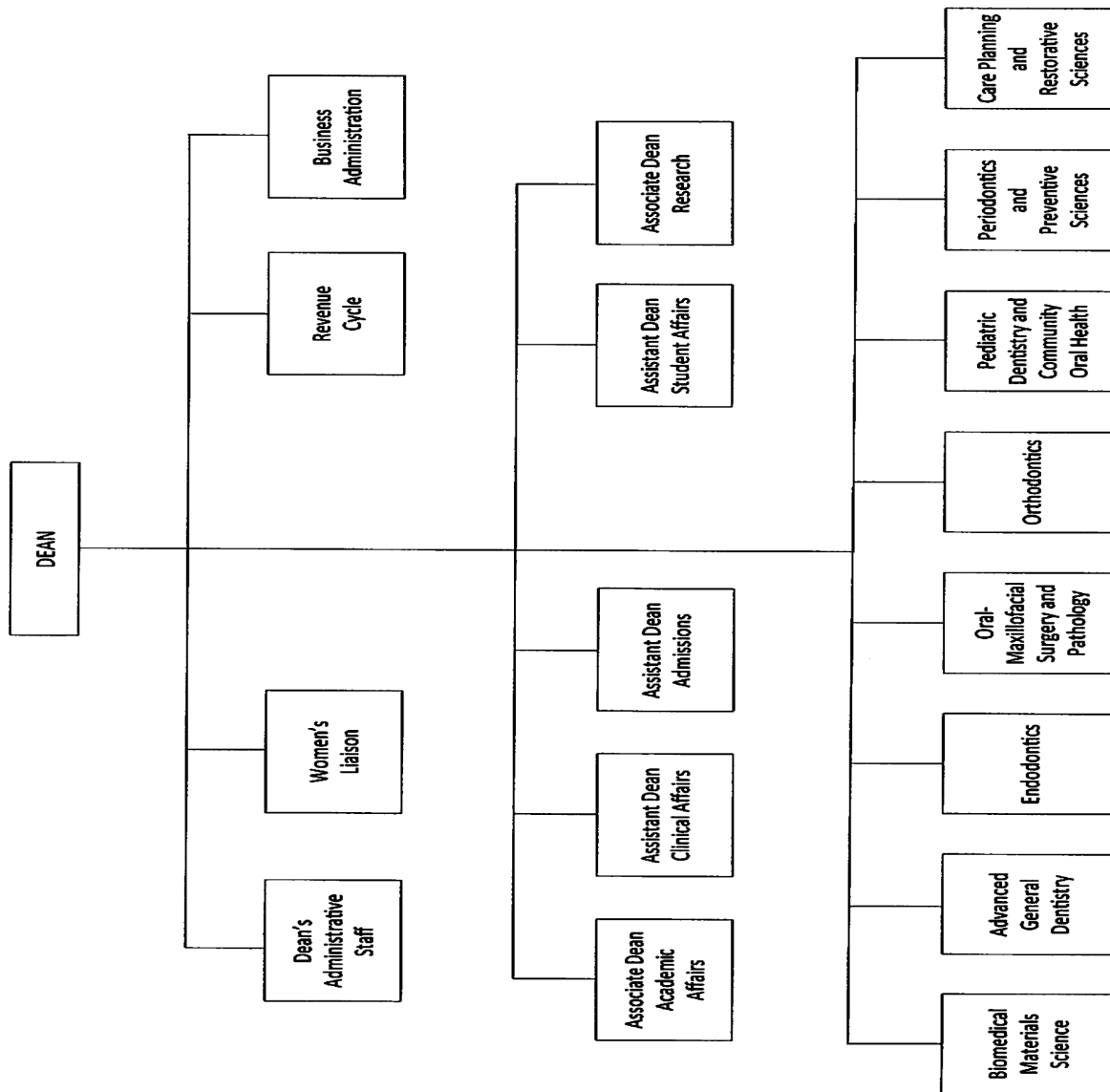
Student Number:

Date:

Class II Preparation MOILI

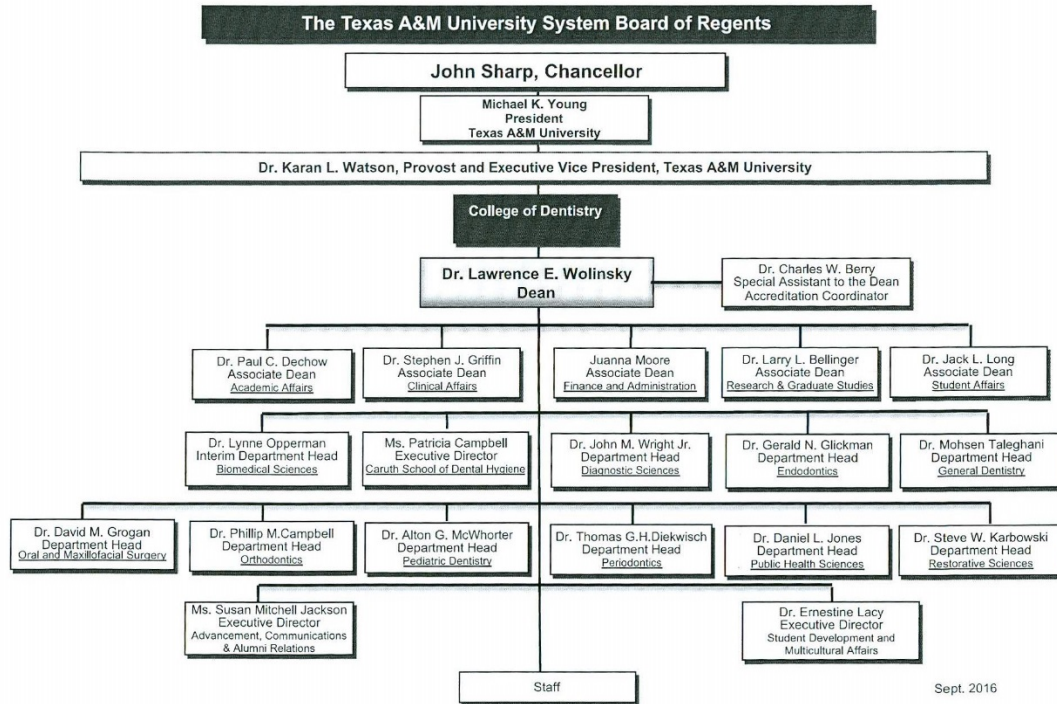
	EVALUATION CRITERIA				Total Poss pts- 30
	Excellent 4	Good 3	Marginally Acceptable 2	Unacceptable 1	*Critical Errors
OUTLINE and EXTENSION	Outline centered and includes all pit and grooves. Contact with adjacent tooth is appropriately broken, barely engaging to of explorer.	Outline form has slight deviation. Buccal, lingual, mesial, distal) but all pits and grooves included, contact not broken in one area; contact broken in one direction >1.0mm.	Outline placed incorrectly to original anatomy (buccal, lingual, mesial, distal) but all pits and grooves included, contact not broken in one area; contact broken in one direction >1.0mm.	Outline form does not include one or more pits or in preparation; contact is not broken in multiple areas or is broken >1.5mm	Outline form misplaced. Groove(s) not included in preparation; contact is broken in any direction >2.0mm;
PROXIMAL BOX	Axial wall depth 1.75mm ± .25mm Proximal box depth(step) 0.5-1.0mm cervical to correctly placed pulpal floor Lingual portion 1.25mm ± .25mm and uniform in depth	Axial wall depth correct but contour is flat Proximal box or lingual portion depth correct but not uniform in depth	Axial wall depth < 1.5mm or > 2mm Proximal box step > 1mm but supragingival Proximal axial wall concave Lingual axial wall depth > 1.5mm	Axial wall depth < 1mm or > 3mm Proximal box step < .5mm or > 2mm or subgingival Lingual axial wall depth is >2mm	Proximal box not adequately prepared for restoration; Wrong tooth or surfaces prepared; Axial wall depth > 4mm
CONVENIENCE FORM	Outline uniform width 1.0-2.5 mm Small end of small condenser should fit Reverse curve(s) correctly placed based on contact	Outline greater than 1.25 mm in pit area(s) only Small end of small condenser should fit	Outline greater than 1.25 mm in isthmus between pits or excessive in pit areas Reverse curve excessive, cusp over reduced Lingual groove >1.25mm	Outline exceeds 1/4 distance from central groove to cusp tip Reverse curve not present Preparation width <1mm. ML or DL cusp over prepared on lingual >2mm wide	Outline exceeds 1/4 distance from central groove to cusp tip in occlusal portion
RETENTION FORM	Buccal and lingual walls slightly convergent Retention grooves are correct depth, width, length and in proper position	Buccal or lingual wall parallel in single area but convergent on remainder of preparation Deviation of Retention Grooves- Too Wide, Too Shallow, Too long	Buccal or lingual wall not convergent, limited to single area <1mm in length Proximal retention adequate but portion may be misplaced in axial or gingival floor Retention placed too deep easily	Buccal and/or lingual wall(s) divergent in multiple areas or in single area >2mm in length Proximal retention not disengageable or excessive. Placement in axial or gingival floor only or to close to cavosurface margin	Entire buccal or lingual wall divergent or prepared walls provide no retention Proximal retention excessive; compromises the restorability of tooth without prep modification
PULPAL and LINGUAL EXTENSION	Optimum pulpal and lingual floor depth 1.75mm ± .25mm and uniform throughout preparation	Pulpal and lingual floor depth varies between 1.5 - 2.0mm; not uniform	Isolated area 1.0-1.5mm or 2.0-3.0mm (pulpal floor depth) Lingual box depth shallow or too deep in isolated area	Pulpal floor or lingual box depth of preparation <1.0mm in area(s) >3.0mm in area(s)	Pulpal floor depth in any area of preparation <.5mm or >4.0mm
RESISTANCE & INTERNAL FORM	Mesial and distal walls slightly divergent with 1.5mm of marginal ridge remaining Asapical and base lingual line angles rounded All other line angles rounded	Mesial or distal walls divergent and 1.0 - 1.5mm of marginal ridge remains. Orientation of lingual groove deviates from perpendicular	Mesial or distal wall evenly divergent but <10° with 1.0-1.5mm of marginal ridge remaining or mesial or distal walls perpendicular and 1.0 - 1.5mm of marginal ridge remains Single sharp external wall angle	Mesial or distal wall depth convergent or < 1mm of ridge remains Asapical or base lingual line angles sharp Sharp angles remain on external walls or internal line angles	<0.5 mm of marginal ridge remains and/or marginal ridge grossly undetermined
CAVOSURFACE MARGINS	Cavosurface margins 90° and smooth Proximal cavosurface angles at 80°	Cavosurface margins 90°-25° and/or have an angle of preparation >15° Proximal cavosurface angles varies ± 5° from 90°	Cavosurface margins 90° ± 10° and/or multiple angles of preparation >15° Proximal cavosurface angles varies ± 10° from 90°	Cavosurface margins 90° ± 15° or roughness greater than 110° Proximal cavosurface grossly acute or obtuse	Cavosurface margins less than 75° or greater than 110° Proximal cavosurface grossly acute or obtuse
OTHER	No Damage to Adjacent tooth Dentist is free of wear and debris	No damage to adjacent tooth or same tooth. Prep or Dentist needs observing before grinding.	Damage to adjacent tooth does not require repair	Damage to adjacent tooth responsible without reason. Requires instructor to clean or dry prior to grinding.	Wrong tooth or surface; Damage to adjacent tooth or same tooth requires restoration or alteration of prep.

Critical errors will result in grade no higher than 55 total pts



UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
SCHOOL OF DENTISTRY
MARCH 2015

Texas A&M



Patient No.	Patient Name				Student No.	Student Name			
	Last	First	Middle			Last	First	Middle	
Procedure No.	Procedure	Tooth No.	Surface	Start Instructor	Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface		Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface		Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface		Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface		Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface		Code	Start Date	Finish Instructor	Code	Finish Date
Procedure No.	Procedure	Tooth No.	Surface	Start Instructor	Code	Start Date	Finish Instructor	Code	Finish Date

PROFESSIONALISM		Initial/Code	QA
1	Ethics/integrity		
2	Willingness to accept instruction		
3	Patient record / financial management		
4	Work habits / time utilization / punctuality		
5	Student attire / grooming		
6	Adheres to rules and procedures		

PROCEDURE MANAGEMENT			
7	Prep for procedure / Lab Communication		
8	Instrument/material setup/Radiation Safety		
9	Infection control / cleanliness		

SKILLS & TRAITS			
10	Confidence / independence		
11	Reaction to stress		
12	Manual skills		
13	Interpersonal skills (<i>patients & staff</i>)		

PATIENT MANAGEMENT			
14	Medical history presentation		
15	Review of dental history		
16	Anesthesia		
17	Patient empathy		

CAVITY PREP - DIRECT RESTORATION, BUILD-UP

18	Rubber Dam application		
19	Outline form / extension		
20	Unsupported enamel		
21	Margins		
22	Proximal and gingival extensions		
23	Internal angles / walls		
24	Pulpal floor / gingival seat		
25	Retention		
26	Caries / decalcification removal		
27	Pulp exposure / protection		
28	Cleanliness of the prep		
29	Preservation of adjacent tooth / soft tissue		

PREPARATION CHECK

30	Material selection/handling		
31	Anatomy, marginal ridges		
32	Margins		
33	Occlusal / interproximal contacts		
34	Finish/polish/texture/ restoration integrity		

FINISH RESTORATION CHECK

TOOTH PREP - INDIRECT RESTORATIONS		Initial/Code	QA
35	Caries / decalcification removal		
36	Occlusal reduction/follows anatomical form		
37	Circumferential (<i>Taper / Undercut</i>)		
38	Margins		
39	Preservation of adjacent tooth / soft tissue		

PREPARATION CHECK

40	(PROVISIONAL) preparation for fabrication		
41	Occlusion / interproximal contacts		
42	Margins		
43	Contours / surface texture		
44	Excess cement removal		

PROVISIONAL CHECK

45	(IMPRESSION) Custom tray		
46	Isolation of operative field		
47	Soft tissue management		
48	Recognition of clarity		

IMPRESSION CHECK

(D3) DIE TRIMING () WAX PATTERN () ()

49	(PRE/FINAL RESTORATION) Margins		
50	Occlusion / interproximal contacts		
51	Anatomy / marginal ridge		
52	Finish / polish / shade		
53	Tissue management, cement removal		

PRE-CEMENTATION CHECK

FINAL RESTORATION CHECK

54	OTHER		
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Comments with corresponding criteria # and tooth #

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University of Oklahoma

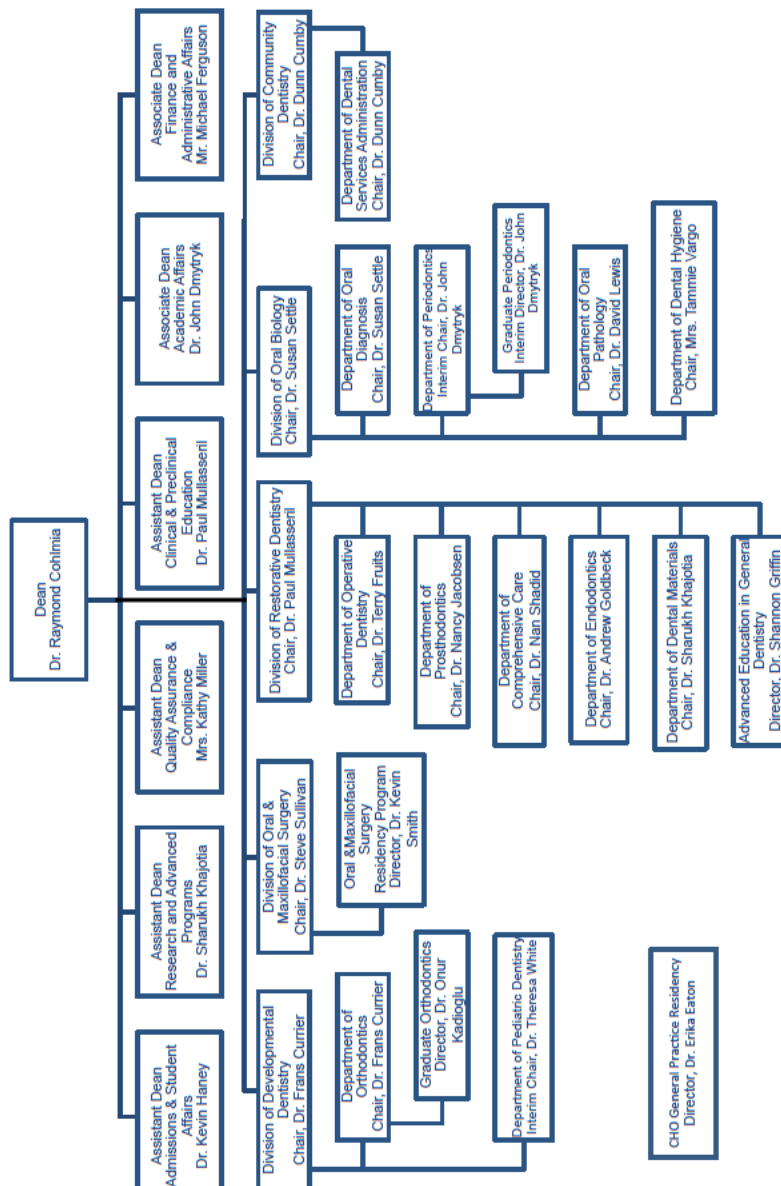
SOCIAL MEDIA GUIDELINES

- Protected Health Information shall not be posted on social media sites, such as Facebook or Twitter. University Personnel should keep in mind that even if a patient's name is not posted, if the patient could reasonably be identified, alone or with information obtained from other sources, the information is considered Protected Health Information.
- Do not post photos or x-rays of patients
- Do not text photos or x-rays of patients
- Sensitive or proprietary information MUST NOT be shared.
- Activity on social media should remain personal in use only
- Use personal email account for registration
- Personal social media relationships with patients, patient family member, etc. are prohibited
- Remember that content is subject to interpretation
- Report unprofessional content to the COD Assistant Dean for Compliance or the Environmental Compliance Officer
- OUHSC email policies apply to files shared over social media
- Resources:
 - <http://it.ouhsc.edu/policies/>
 - <http://portal.ouphysicians.com/OnlineDocuments>
 - http://www.ok.gov/cio/Policy_and_Standards/Social_Media/

ACADEMICS AND SAFEGUARDING PHI

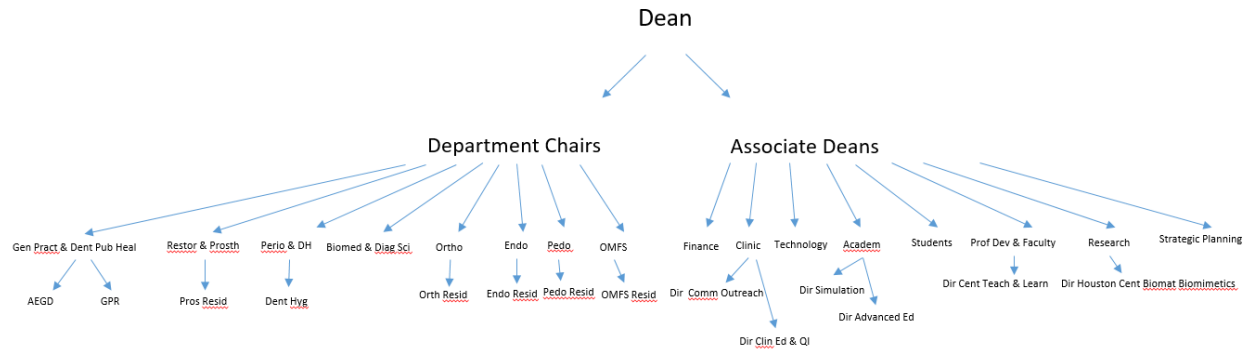
- PHI in the Classroom
 - Remove all identifiers from materials OR
 - Get patient Authorization to use PHI OR
 - Use commercially-available slides
 - Do not take photos of instructors' Power Point presentations.
 - Students are responsible for the PHI they create, collect, store, and send
 - Do not take photos of patients using your cell phone
 - Encrypted flash drives MUST be used to store any PHI (including photos and x-rays)
 - Portable Computing Devices (e.g., laptops, smart phones, tablets, flash drives) and Desktops. Employees, volunteers, and students/trainees must use extreme caution when using Portable Computing Devices and desktop computers to store PHI. PHI should not be stored on Portable Computing Devices and desktop computers unless absolutely necessary; it should be stored on servers in a secure enterprise data center. If PHI is stored on such devices or computers, the device or computer must be encrypted pursuant to HIPAA Security policies and applicable University policies. Portable Computing Devices must never be left unattended in unsecured places. The failure to take the above security precautions will be considered a violation of these Policies, subjecting the user to sanctions.
 - The University and/or the individual who breach HIPAA can be held liable
 - Student clinic suspension may be imposed
 - Fines may be imposed against the University and individuals
 - Individuals may be imprisoned for up to 10 years
 - Resource:
 - <http://www.ouhsc.edu/hipaa>
-

OU College of Dentistry Organizational Chart



07/21/2015

University of Texas Houston



❖ **Assessment Clinic Productivity Annual Report Comparisons**

Time Periods	Patients scheduled	Patients Assessed	Patients Show up Rate	Patients Accepted	Patients Acceptance Rate	Patients with Radiographs Taken	Patients Radiographs Taken Rate
8/15-7/16	5407	3570	66%	2558	72%	2062	81%
8/14-7/15	5835	3685	63%	2607	71%	1773	68%
8/13-7/14	4755	3395	71%	2509	74%	1914	76%
9/12-8/13	4685	3043	65%	2061	68%	1454	71%
8/11-7/12	5256	3474	66%	2689	77%	1845	69%
8/10-7/11	6009	3887	67%	2848	73%	2228	78%
8/09-7/10	5129	3195	62%	2383	75%	2024	85%
8/08-7/09	6095	3811	63%	2766	75%	2402	87%

❖ **Produced by Shawn Adibi DDS MEd**

**DIRECT POSTERIOR CLASS II – AMALGAM PREPARATION
SCORING CRITERIA RATINGS SCALE**

	5	4	3	2	1
OUTLINE & EXTENSION	Outline smooth & flowing, does not weaken tooth. Proximal & gingival extensions visibly open less than 0.5 mm. Optimal treatment of fissures Proximal cavosurface angles are 90 degrees	Outline slightly irregular but does not weaken tooth. Isthmus slightly wide Proximal and/or gingival extensions slightly overextended Near optimal treatment of fissures Cavosurface angles near optimal. Cavosurface slightly rough	Outline slightly weakens marginal ridge or cusp. Isthmus too wide/narrow. Proximal and/or gingival extensions moderately overextended Adequate treatment of fissures. Tooth and restoration not compromised Cavosurfaces possibly compromise integrity of tooth or restoration. Cavosurface moderately rough	Outline severely weakens marginal ridge or cusp. Outline is misshapen and forces improper exit angle. Unsound demineralized enamel is present. Proximal and/or gingival extensions in contact or obviously overextended. Inadequate treatment of fissures will compromise tooth or restoration Improper cavosurface angles or rough cavosurface will cause restoration to fail	Outline is grossly improper and lacks definite form Facet/unsound demineralized penetrates DEJ Caries remains in the enamel or is not completely assessed Proximal and/or gingival extensions are grossly overextended Lack of treatment of fissures seriously compromise tooth and restoration Cavosurface angles are grossly improper or have multiple major areas of roughness and/or enamel weakness
INTERNAL FORM	Proximal walls are clearly convergent. Pulpal floor 1.5 – 2.0 mm deep and entirely in dentin. Mesio-distal width of gingival floor 1.2 – 1.5 mm (premolars), 1.5 – 1.7 mm. (molars) Internal form smooth with no sharp angles. Retentive grooves, if placed, are ideal. Axial wall follows contour of tooth	Proximal walls are barely convergent. Axial wall and/or pulpal floor slightly shallow or deep but adequate bulk for restoration Internal form mostly smooth, some minor roughness. Retentive grooves, if present, are adequate. Axial wall contour near optimal.	Proximal walls are parallel or slightly divergent. Axial and/or pulpal floor moderately shallow or deep but adequate bulk for restoration Internal form - moderately rough or sharp angles. Retentive grooves, if placed, too deep or shallow, or incorrectly placed. Axial wall contour not optimal	Proximal walls critically divergent. Axial and/or pulpal floor critically shallow/deep or inadequate bulk for restoration Affected dentin remains Internal form rough and unfinished with sharp angles that will lead to restoration failure. Retentive grooves, if placed, will compromise tooth or restoration	Proximal walls grossly divergent. Walls/floors grossly deep with no concern for pulp. Caries remains in dentin Internal form rough and unfinished with sharp angles that will lead to restoration failure. Gross disregard for placement of retentive features will compromise tooth or restoration
OPERATIVE	Rubber dam is stable and optimal. Dam is inverted with no rips, bunching, or voids No damage to adjacent tooth	Rubber dam is not optimal, but preparation is clean and dry Minor damage to adjacent tooth can be removed by polishing	Rubber dam is adequate, but wrong teeth are isolated. The Preparation can be cleaned and dried Minor damage to adjacent tooth can be removed by polishing, but shape of contact will be changed	Rubber dam is inadequate. Blood or saliva on preparation or prep partially covered by dam. Damage to adjacent tooth difficult to polish out. May require restoration	Rubber dam grossly sloppy and torn, or portions of the preparation are not visible due to blood, saliva, or improper isolation. Damage to adjacent teeth will require restoration.

**DIRECT POSTERIOR CLASS II – COMPOSITE PREPARATION
SCORING CRITERIA RATING SCALE**

	5	4	3	2	1
OUTLINE & EXTENSION	<p>Outline smooth & flowing, does not weaken tooth.</p> <p>Proximal & gingival extensions visibly open less than 0.5 mm.</p> <p>Optimal treatment of fissures</p> <p>Proximal cavosurface angles are 90 degrees</p>	<p>Outline slightly irregular but does not weaken tooth. Isthmus slightly wide</p> <p>Proximal and/or gingival extensions slightly overextended</p> <p>Near optimal treatment of fissures</p> <p>Cavosurface angles near optimal.</p> <p>Cavosurface slightly rough</p>	<p>Outline slightly weakens marginal ridge or cusp. Isthmus too wide/narrow.</p> <p>Proximal and/or gingival extensions moderately overextended</p> <p>Adequate treatment of fissures. Tooth and restoration not compromised</p> <p>Cavosurfaces possibly compromise integrity of tooth or restoration.</p> <p>Cavosurface moderately rough</p>	<p>Outline severely weakens marginal ridge or cusp. Outline is misshapen and forces improper exit angle.</p> <p>Unsound demineralized enamel is present.</p> <p>Proximal and/or gingival extensions in contact or obviously overextended.</p> <p>Inadequate treatment of fissures will compromise tooth or restoration</p> <p>Improper cavosurface angles or rough cavosurface will cause restoration to fail</p>	<p>Outline is grossly improper and lacks definite form</p> <p>Tactilely unsound demineralized penetrates DEJ</p> <p>Caries remains in the enamel or is not completely accessed</p> <p>Proximal and/or gingival extensions are grossly overextended</p> <p>Lack of treatment of fissures seriously compromise tooth and restoration</p> <p>Cavosurface angles are grossly improper or have multiple major areas of roughness and/or enamel weakness</p>
INTERNAL FORM	<p>Pulpal floor depth determined by lesion or does not exceed 2.0 mm. Depth of axial wall depth 1.2 – 1.5 mm (premolar), 1.5 – 1.7 (molar)</p> <p>Internal Form is smooth and flowing with no sharp angle.</p>	<p>Pulpal or axial wall slightly shallow or deep.</p> <p>Internal form mostly smooth, some minor roughness or sharp angles.</p>	<p>Pulpal or axial wall moderately shallow or deep</p> <p>Internal form – moderately rough or sharp angles.</p>	<p>Pulpal or axial wall critically shallow or deep.</p> <p>Affected dentin remains</p> <p>Internal form rough and unfinished with sharp angles that will lead to restoration failure.</p>	<p>Walls or floors are grossly shallow or deep with lack of concern for pulp</p> <p>Caries remains in dentin</p> <p>Internal form rough and unfinished with sharp angles that will lead to restoration failure.</p>
OPERATIVE	<p>Rubber dam is stable and optimal. Dam is inverted with no rips, bunching, or voids</p> <p>No damage to adjacent tooth</p>	<p>Rubber dam is not optimal, but preparation is clean and dry</p> <p>Minor damage to adjacent tooth can be removed by polishing</p> <p>without changing shape of contact</p>	<p>Rubber dam is adequate, but wrong teeth are isolated. The Preparation can be cleaned and dried</p> <p>Minor damage to adjacent tooth can be removed by polishing, but shape of contact will be changed</p>	<p>Rubber dam is inadequate. Blood or saliva on preparation or prep partially covered by dam.</p> <p>Damage to adjacent tooth difficult to polish out. May require restoration</p>	<p>Rubber dam grossly sloppy and torn, or portions of the preparation are not visible due to blood, saliva, or improper isolation.</p> <p>Damage to adjacent teeth will require restoration.</p>

**DIRECT RESTORATION FINISH
SCORING CRITERIA RATING SCALE**

	5	4	3	2	1
ANATOMICAL FORM	<p>Anatomical form is consistent and harmonious with contiguous tooth structure</p> <p>Proper proximal contour and shape are restored</p> <p>Normal proximal contact area and position are restored. Contact is visually closed and resists the passage of floss</p>	<p>Slight variation in normal anatomical form is present</p> <p>There is slight variation of proximal contour and shape</p> <p>There is slight variation of normal proximal contact area and position. Contact is visually closed and resists the passage of floss</p>	<p>Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped</p> <p>There is moderate variation of proximal contour and shape</p> <p>There is moderate variation of normal proximal contact area and position. Contact is visually closed and there is slight resistance to the passage of floss</p>	<p>Anatomical form is improper. Marginal ridge is poorly shaped. Anatomy is too deep or flat</p> <p>Proximal contour is poor. Embasures are severely over/under contoured</p> <p>Contact is visually open, or floss will not pass through the contact</p>	<p>There is gross lack of anatomical form</p> <p>Grossly improper proximal contour or shape</p> <p>Contact is grossly open, or the contact area is bonded to the adjacent tooth</p>
MARGINS	<p>There are no excesses or deficiencies anywhere along the margins</p>	<p>Slight marginal excesses and/or deficiencies are present</p>	<p>Moderate marginal excesses and/or deficiencies are present</p>	<p>A deep open margin is present, or critical excesses or deficiencies are present</p> <p>Gingival margin catches floss</p>	<p>Multiple open margins with gross excesses or deficiencies are present</p> <p>Gingival margin strands floss</p>
FINISH, FUNCTION &	<p>The surface is smooth with no pits, voids, or irregularities.</p> <p>Occlusion is restored to proper centric with no lateral interferences.</p> <p>There is no damage to hard or soft tissue</p>	<p>Slight surfaces irregularities, pits or voids are present.</p> <p>There is minor damage to hard or soft tissue</p>	<p>Moderate surfaces irregularities, pits or voids are present.</p> <p>There is moderate damage to hard or soft tissue</p>	<p>Severe surfaces irregularities, pits or voids are present.</p> <p>There is severe hyperocclusion in centric or lateral.</p> <p>There is severe damage to hard or soft tissue</p>	<p>Gross surface defects are present</p> <p>Occlusion is grossly inadequate</p> <p>Gross mutilation of hard or soft tissue is evident</p>

**INDIRECT CLASS II RESTORATION FINISH
SCORING CRITERIA RATING SCALE**

	5	4	3	2	1
ANATOMICAL FORM	<p>Anatomical form is consistent and harmonious with contiguous tooth structure</p> <p>Proper proximal contour and shape are restored</p> <p>Normal proximal contact area and position are restored. Contact is visually closed and resists the passage of floss</p>	<p>Slight variation in normal anatomical form is present</p> <p>There is slight variation of proximal contour and shape</p> <p>There is slight variation of normal proximal contact area and position. Contact is visually closed and resists the passage of floss</p>	<p>Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped</p> <p>There is moderate variation of proximal contour and shape</p> <p>There is moderate variation of normal proximal contact area and position. Contact is visually closed and there is slight resistance to the passage of floss</p>	<p>Anatomical form is improper. Marginal ridge is poorly shaped. Anatomy is too deep or flat</p> <p>Proximal contour is poor. Embasures are severely overrunder contoured</p> <p>Contact is visually open, or floss will not pass through the contact</p>	<p>There is gross lack of anatomical form</p> <p>Grossly improper proximal contour or shape</p> <p>Contact is grossly open</p>
MARGINS	<p>Restoration is fully seated with no excess or deficient margins.</p>	<p>Restoration is seated. Margins are closed, but slight marginal excesses or deficiencies are detectable with an explorer</p>	<p>Restoration is seated. Moderate excess or deficient margins are detectable, but margins are closed</p>	<p>Restoration is not seated. Areas of exposed cement, open margins, and/or marginal excesses are present.</p> <p>Gingival margin catches floss</p>	<p>Restoration is not seated. There are grossly evident areas of exposed cement, open margins, and/or marginal excesses</p> <p>Gingival margin shreds floss</p>
FINISH, FUNCTION &	<p>The surface is smooth with no pits, voids, or irregularities.</p> <p>Occlusion is restored to proper centric with no lateral interferences.</p> <p>There is no damage to hard or soft tissue</p>	<p>Slight surface irregularities, pits or voids are present.</p>	<p>Moderate surface irregularities, pits or voids are present.</p>	<p>Severe surface irregularities, pits or voids are present.</p> <p>There is severe hyperocclusion in centric or lateral.</p>	<p>Gross surface defects are present</p> <p>Occlusion is grossly inadequate</p> <p>Gross mutilation of hard or soft tissue is evident</p>

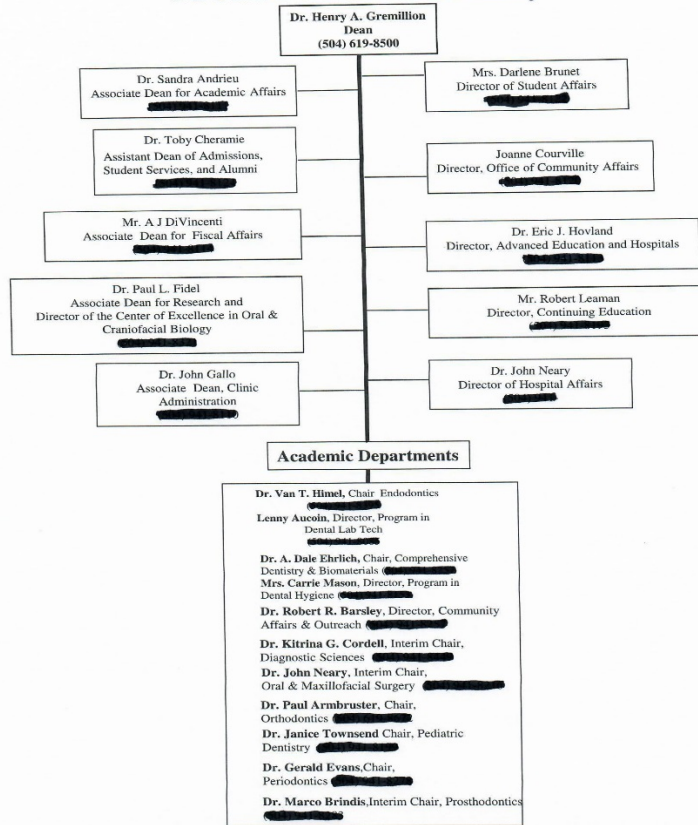
**CLASS-II INDIRECT POSTERIOR CLASS II PREPARATION
SCORING CRITERIA RATING SCALE**

	5	4	3	2	
OUTLINE & EXTENSION	<p>Outline is generally smooth and flowing, and does not weaken tooth</p> <p>Proximal and gingival extensions are visually open and break contact 0.75 – 1.25 mm. Gold prep have discernible bevels (at least 0.5 mm). Margins/bevels are smooth and well defined.</p> <p>Resin prep have no bevels</p> <p>Optimal treatment of fissures</p> <p>Ideal conservation of tooth structure</p>	<p>Outline is slightly irregular. Isthmus is slightly wider than required</p> <p>Proximal and/or gingival extensions are slightly overextended.</p> <p>Margins are slightly irregular.</p> <p>Bevels are less than 0.5 mm or greater than 1.0 mm.</p> <p>Near optimal treatment of fissures</p> <p>Slightly inappropriate removal of tooth structure</p>	<p>Outline slightly weakens marginal ridge or cusp. Isthmus is too wide or narrow.</p> <p>Proximal and/or gingival extensions are moderately overextended</p> <p>Margins are moderately irregular.</p> <p>Bevels are moderately shallow or deep</p> <p>Adequate treatment of fissures</p> <p>Moderately inappropriate removal of tooth structure</p>	<p>Outline severely weakens marginal ridge or cusp. Unsound demineralized dentin is present</p> <p>Proximal and/or gingival extensions are obviously overextended</p> <p>Margins are critically irregular or not defined. Bevels are critically shallow or deep, or on unsupported enamel</p> <p>Inadequate treatment of fissures</p> <p>Excessive inappropriate removal of tooth structure</p>	<p>Outline is grossly defective. Caries penetrates the preparation.</p> <p>Caries remains proximal and/or grossly overexposed</p> <p>Margins exhibit defects</p> <p>Bevels are also defective</p> <p>Lack of treatment compromise to tooth structure</p> <p>Grossly inappropriate removal of tooth structure</p>
INTERNAL FORM	<p>Optimal resistance/retention form. Ideal divergence of walls. No undercuts present</p> <p>Optimal depth of walls conserves tooth structure and allows for adequate bulk of restorative material</p> <p>All walls are smooth. Line angles are clearly defined (rounded for resin prep).</p>	<p>Resistance/retention form adequate. Walls slightly over-tapered. No undercuts present.</p> <p>Slight over/under-reduction of walls or floors.</p> <p>Walls or line angles are slightly irregular</p>	<p>Resistance/retention form is minimally present. Walls moderately over-tapered, or a small undercut on 1 wall compromises draw</p> <p>Moderate over/under-reduction of walls or floors.</p> <p>Walls or line angles are moderately irregular</p>	<p>Resistance/retention form inadequate. Walls excessively over-tapered, or moderate undercuts are present. Complete seating or retention of the restoration is compromised</p> <p>Critical over/under-reduction of walls or floors. Pulp is endangered</p> <p>Walls or line angles are rough and poorly defined</p>	<p>Resistance/retention form absent. Walls severely undercut. Retention of the restoration is impossible.</p> <p>Gross over/under-reduction of walls or floors. Pulpal tissue compromised</p> <p>Caries remains proximal and/or grossly overexposed</p>
PATIVE	<p>Rubber dam is stable and optimal. Dam is inverted with no rips, bunching, or voids</p> <p>No damage to adjacent tooth</p>	<p>Rubber dam is not optimal, but preparation is clean and dry</p>	<p>Rubber dam is adequate, but wrong teeth are isolated. The Preparation can be cleaned and dried</p>	<p>Rubber dam is inadequate. Blood or saliva on preparation or prep partially covered by dam.</p>	<p>Rubber dam is grossly defective. Portions of the preparation are visible due to isolation.</p>

**DIRECT ANTERIOR CLASS III – COMPOSITE PREPARATION
SCORING CRITERIA RATING SCALE**

	5	4	3	2	1
OUTLINE & EXTENSION	<p>Outline provides optimal access for caries removal and insertion of restorative material</p> <p>Gingival extension is visually open up to 0.5 mm. Facial or lingual extension broken up to 0.5 mm.</p> <p>Incisal contact is not broken</p> <p>Cavosurface is a smooth continuous curve with no sharp angles</p> <p>There are no acute cavosurface angles</p>	<p>Outline is slightly over or under extended. Outline is slightly irregular but does not weaken tooth</p> <p>Cavosurface is generally smooth with continuous curves and no sharp angles</p> <p>Cavosurface angles are not optimal but do not compromise the tooth or restoration</p>	<p>Outline is moderately over or under extended. Outline is moderately irregular but does not weaken tooth</p> <p>Cavosurface is moderately irregular and rough. A few sharp angles are present</p> <p>Cavosurface angles possibly compromise the tooth or restoration</p>	<p>Outline is inappropriate for access to caries or insertion of restorative material, or weakens tooth</p> <p>Gingival wall is in contact or obviously overextended</p> <p>Incisal extension has broken contact</p> <p>Unsound demineralized enamel is present</p> <p>Cavosurface is severely irregular and/or with sharp angles</p> <p>Cavosurface angles will lead to enamel fracture or fracture of the restoration</p>	<p>Outline is grossly improper and lacks definite form</p> <p>Gingival wall is grossly overextended</p> <p>Incisal extension has broken contact</p> <p>Unsound demineralized enamel penetrates the DEJ</p> <p>Caries remains</p> <p>Cavosurface has gross irregularities and/or enamel weakness that will cause the restoration to fail</p> <p>Cavosurface angles grossly inappropriate and will lead to fracture of the restoration</p>
INTERNAL FORM	<p>Axial wall follows external contour of tooth. Depth does not exceed 1.0 mm. beyond DEJ</p> <p>Internal line angles are rounded and smooth. Internal walls are well defined</p>	<p>Axial wall follows external contour of tooth. Depth does not exceed 1.5 mm. beyond DEJ</p> <p>Internal walls are well defined and rounded, but have slight irregularities</p>	<p>Axial wall follows external contour of tooth. Depth does not exceed 2.0 mm. beyond DEJ</p> <p>Internal walls are rounded, but moderately rough, irregular, and not defined. Moderately sharp line angles are present.</p>	<p>Axial wall depth exceeds 2.0 mm. beyond the DEJ</p> <p>Affected dentin remains</p> <p>Internal walls are grossly irregular and not defined. Angle of walls undermines enamel or incisal angle, or encroaches on pulp</p>	<p>Gross unjustified removal of tooth structure jeopardizes the health of the tooth</p> <p>Caries remains in the dentin</p> <p>Gross irregular and sharp line angles</p>
OPERATIVE	<p>Rubber dam is stable and optimal. Dam is inverted with no rips, bunching, or voids</p> <p>No damage to adjacent tooth</p>	<p>Rubber dam is not optimal, but preparation is clean and dry</p> <p>Minor damage to adjacent tooth can be removed by polishing without changing shape of contact</p>	<p>Rubber dam is adequate, but wrong teeth are isolated. The Preparation can be cleaned and dried</p> <p>Minor damage to adjacent tooth can be removed by polishing, but shape of contact will be changed</p>	<p>Rubber dam is inadequate. Blood or saliva on preparation or prep partially covered by dam.</p> <p>Damage to adjacent tooth difficult to polish out. May require restoration</p>	<p>Rubber dam grossly sloppy and torn, or portions of the preparation are not visible due to blood, saliva, or improper isolation. Damage to adjacent teeth will require restoration.</p>

LSUHSC School of Dentistry





Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

Regional Meeting Reporting/National Meeting Information

The 2016 National Agenda was established after a review of the suggestions contained in the reports of the 2015 Fall Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas were reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect as to what has changed and the response/action taken and/or the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending a Regional Meeting is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to timely publication of the National Annual Report.

Continue to invite your colleagues, Dental Licensure Board examiners, and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings. The strength of the organization lies in its membership.

Each Region should select next year's meeting site and date/tentative date during your Fall Regional CODE meeting so this information may be published in the Annual National Report and on the CODE website.

The Regional meeting reports are to be submitted to the National Director in **publishable format** as an email attachment.

The required format and sequence will be:

- 1. CODE Regional Meeting Report Form***
- 2. CODE Regional Attendees form***
- 3. Summary of responses to the National Agenda**
- 4. Individual school responses to the National Agenda**
- 5. The Regional Agenda summary and responses**

*(copies may be obtained from the CODE website: www.unmc.edu/code or within this document)

Send an electronic copy of the final regional report via an email attachment to the National Director (gary.stafford@mu.edu) within thirty (30) days of the meetings conclusion.

National CODE Meeting:

The meeting will be held Thursday, February 23rd, 2017 from 5:00 – 6:00 pm at the Drake Hotel, 140 East Walton Place, room TBA in Chicago, IL. Any member who would like to present or who has suggestions for speakers should contact the National Director for more information.

2017 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held during the ADEA Annual Session & Exhibition, March 18-21, 2017 in Long Beach, CA.

National Directory of Operative Dentistry Educators:

The CODE National Director maintains the National Directory of Operative Dentistry Educators as a resource for other dental professionals. It is critically important that this information be as current as possible.

You may update your university's directory listing on the CODE website at www.unmc.edu/code or by sending an email directly to the National Director at gary.stafford@mu.edu.

In an effort to keep the National Directory up to date, please have each school in your Region update the following information:

1. *School name and complete mailing address*
2. *Individual names: (F/T Faculty), phone number and email address of F/T Faculty who teaches operative dentistry.*
 - a. This could be individual's who teach in a comprehensive care program, etc... if there is no defined operative section of the department.

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete National Directory and publishing the Annual National Report in a timely fashion.

All my best,

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director
Associate Professor and Chair
Department of General Dental Sciences
Marquette University School of Dentistry
1801 W. Wisconsin Ave.
Rm 336 C
Milwaukee, WI 53233
414.288.5409
gary.stafford@mu.edu

Regional Meeting Report Form

Region:

Host University, Address, and Dates of 2016 Regional Meeting:

Host University	Address	Dates of Meeting
University of Pittsburg School of Dental Medicine	3501 Terrace Street Pittsburg, PA 15261	October 13 th and 14 th , 2016

Chairperson and Contact Information for 2016 Regional Meeting:

Chairperson	University/Address	Phone/email
Michele L. Kirkup	Indiana University School of Dentistry 1121 W. Michigan Street Indianapolis, IN 46202	317-278-3398 mkirkup@iu.edu

List of Attendees: (Please complete CODE Regional Meeting Attendees Form on the following page)

Contact Person, Host University, and Dates of 2017 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting
D. Stanley Sharples 614-688-5808 sharples.3@osu.edu	Ohio State University College of Dentistry 305 W 12 th Avenue Columbus, OH 43210	TBD

Regional Meeting Attendee's Form

Name	University	Phone	email
Michele Kirkup	Indiana University	317-278-3398	mkirkup@iu.edu
Paul Reifeis	Indiana University	317-278-1858	pereifei@iu.edu
Brooke Adams	Indiana University	317-439-2256	bnadams2@iu.edu
Lisa Willis	Indiana University	317-278-3612	lhwillis@iu.edu
Kim Diefenderfer	Indiana University	317-274-3715	kediefer@iu.edu
Ron DeAngelis	University of Pittsburg	724-991-5602	rjd43@pitt.edu
Tammy Chipps	West Virginia University	304-293-1245	tchipps@hsc.wvu.edu
Timothy Weber	University of Pittsburg	412-648-8829	tcw14@pitt.edu
Mary Ellen McLean	University of Michigan	734-615-8353	memclean@umich.edu
D. Stanley Sharples	Ohio State University	614-688-5808	sharples.3@osu.edu
Janet Bolina	Ohio State University	614-292-3316	bolina.1@osu.edu
Swati Chitre	Detroit Mercy Dental	313-494-6783	chitresd@udmercy.edu

Gildo Santos	Western Ontario	519-661-2111	<u>Gildo.Santos@schulich.uwo.ca</u>
Uphoma Guha	University of Buffalo	716-829-6281	<u>guhau@buffalo.edu</u>
Marsha Babka	Midwestern (Illinois)	630-515-7476	<u>mbabka@midwestern.edu</u>
Priscilla Chang	University of IL at Chicago	312-355-0552	<u>ppchang@uic.edu</u>
Adriana Semprum	University of IL at Chicago	312-996-1811	<u>asemprum@uic.edu</u>

2016 National Agenda

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses?

b. What System?

c. How long have you been using a CAD/CAM System?

d. How are you using CAD/CAM in your pre-clinical courses?

e. What are the prerequisites for its use?

f. When do students get to use it?

g. Who provides supervision?

h. What training did they receive?

Summary: Most schools reported using CAD/CAM within the preclinical courses. The most commonly reported systems were Cerec and E4D. Majority of schools have been using CAD/CAM for 4-7 years. Most schools are using CAD/CAM for an evaluation tool as well as training students how to scan and design restorations. Some schools report prerequisite, but varies by school as when students get to use the systems. Majority of schools report supervision is provided by trained faculty, who received training through the company.

ii. Are you using CAD/CAM in your clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES

a. Which courses?

b. What System?

c. How long have you been using a CAD/CAM System?

d. How are you using CAD/CAM in your pre-clinical courses?

e. What are the prerequisites for its use?

f. When do students get to use it?

g. Who provides supervision?

h. What training did they receive?

Summary: Similar to the previous question, most schools reported using CAD/CAM within the clinical courses. The most commonly reported systems were Cerec and E4D. Majority of schools have been using CAD/CAM for 4-7 years. Majority of schools report prerequisites for its use, consisting of participation in preclinical coursework. Trained CAD/CAM faculty provide the supervision.

iii. Are you using virtual reality haptic feedback training?

1. NO

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

i. What System?

- b. How soon?

2. YES

- a. Which courses?
b. What System?
c. How long have you been using Virtual Reality Haptic Feedback Training?
d. Who provides supervision?
i. What training did they receive?
ii. What System?
iii. How is it being used?
e. Is it efficacious?

Summary: All schools reported little to no use of virtual reality haptic feedback training. Some schools are in discussions about incorporating haptic training within their curriculums.

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO

- a. Do you plan on incorporating Digital Impressions in your clinical courses?
b. What System?
c. How soon?

2. YES

- a. What System?
b. How long have you been using a Digital Impression System?
c. What are the prerequisites for its use?

- d. When do students get to use it?
- e. Who provides supervision?
- f. What training did they receive?

Summary: Most schools reported using an Intraoral Digital impression system in the clinical courses. The systems reported were: Cerec, E4D, True Definition, Lava COS and Trios 3shape. Many have been using the system for 4-7 years. Prerequisites include training within previous courses. Trained faculty supervise.

- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
- vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

Summary: Majority of schools report no use of 3D printing within the preclinical or clinical courses. The schools which report 3D printing are using 3 shape scanner and Lava COS. Schools reported interest in incorporating 3D printing in the future.

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?
- ii. What are your normal hours per clinical session?
- iii. How are your clinical groups set-up?
- iv. How do your clinical groups function?
- v. How long have you had your current structure?
- vi. Do you plan on changing in the near future?

Summary: The amount of pre-doctoral students varies from 50-150 students. Many schools report international programs with an average of 20 students. Many schools report a morning and afternoon session, while others report 3 sessions. A few schools offer

evening clinical sessions. Majority of schools report clinical structures which assign a group of student to a supervising clinical faculty member. Majority of schools report these systems have been in place for 2 or more years. Some schools report a possibility of changing when new clinical space is created.

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients?
- iii. If so, what are the main reasons?

Summary: Majority of schools report a screening clinic which students screen the patients. Some schools report faculty screen the patients. The annual screening numbers range from 2500-5500. Many schools report having difficulty finding suitable patients for student requirements. Many schools indicate the main reasons as patient finances, competition with private practice dentists, and speed of treatment.

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?
 - 1. Do you use Carbamide Peroxide for caries control?
 - 2. Do you use Sodium Diamine Fluoride for caries control?
- ii. What evidence do you have to support your use/non-use?

Summary: Majority of schools report using fluoride based products for moderate and high-risk patients. Schools report limited or no use of Carbamide peroxide or Sodium Diamine Fluoride within pre-doctoral clinics.

b. Caries Removal

- i. Do you teach total or partial caries removal?

Summary: Majority of schools report partial caries removal however, faculty calibration and consistency were noted as barriers.

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
- ii. Do you use bulk fill composite resin clinically?
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?

- v. What evidence do you have to support your use/non-use?

Summary: Majority of schools report not teaching bulk fill composite resins pre-clinically or clinically. The schools who report are using Tetric Bulk Fill, Surefill SDR, and Compcore AF. Please refer to individual schools for preferred technique and evidence.

IV. **Student Assessment**

a. **Clinical Grades**

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
- ii. Are students evaluated (graded) on their daily clinical procedures?
 - 1. If so, what metrics or methods are used?
- iii. Provide Rubrics if available.

Summary: Majority of schools reported a grading scale to evaluate their students in the preclinical and clinical courses. Some schools noted a 70% is the minimum passing percentage. No schools reported a complete pass/fail system for preclinical or clinical experiences. For daily clinical procedures, most of the schools reported a daily grade or feedback system.

V. **Administration**

a. **Organizational Structure**

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

Summary: Majority of schools report an executive committee as the major decision making body within the school. These committees are made up of elected faculty members and/or the Dean of the school. Please see individual school responses for the number of Deans, Chairs, etc.

VI. **Ethics and Professionalism**

a. **Social Media**

- i. Have you had any student conduct issues related to the improper use of Social Media?

1. ex...the use of patient photos on Facebook
2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities?
- iii. What specific rules/guidelines do you have in place?

Summary: Majority of schools report limited to no student conduct issues related to the improper use of Social Media. Many schools reported students are informed of their professional responsibilities within orientation courses, ethics courses, and student handbooks.

2016 National Agenda

VII. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. **NO**

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. **YES**

a. Which courses?

b. What System?

c. How long have you been using a CAD/CAM System?

d. How are you using CAD/CAM in your pre-clinical courses?

e. What are the prerequisites for its use?

f. When do students get to use it?

g. Who provides supervision?

h. What training did they receive?

Buffalo	<p>YES</p> <p>Which courses?</p> <p>Cariology and Direct Restorations, Indirect Restoration and Dental Anatomy lab</p> <p>What System?</p> <p>Compare Soft (Planmeca/E4D)</p> <p>How long have you been using a CAD/CAM System?</p> <p>5 years in Indirect Restoration. Just started from 2016 Fall semester in Cariology and Direct Restorations and Dental Anatomy lab.</p> <p>How are you using CAD/CAM in your pre-clinical courses?</p> <p>CAD CAM is used as teaching/evaluation tool where students compare their preparations against a standard preparation. In addition, students are using it as intra-oral scanner for recording impression and virtual designing of an indirect restoration. It is not used for grading purposes.</p> <p>What are the prerequisites for its use?</p> <p>The students have to go through a training offered by Director of CAD/CAM before they can start using it. We are working this out this year. The plan is to have the D1 students undergo training as early as their 1st semester (Fall) and use it in their Dental Anatomy course, in their Direct Restorations course in the Spring and the Indirect Restorations course during their entire 2nd year. Students should use the system in preclinical courses, before using it in clinic.</p> <p>When do students get to use it?</p> <p>Students can use Compare-Soft during pre-clinical and clinical time outside classroom time for self-evaluation of their own class projects and additional practice before turning in projects.</p> <p>Who provides supervision?</p> <p>CAD/CAM Director provides supervision. Students use the software independently outside lab hours. Access to the room, however, is monitored by swipe cards registries. Cameras have also been installed to monitor appropriate use of the equipment.</p>
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	<p>What training did they get?</p> <p>There is first a didactic presentation given by the CAD/CAM Director. Then, there is a small-group, hands on training session with the same person in charge before they can start using CAD/CAM.</p>
Detroit Mercy	<p>YES</p> <p>Which courses? Introduction to Operative for class I, Single crown, and composite course class II courses.</p> <p>What System? CEREC System (PrepCheck and Blue Cams), True Definition Scanner</p> <p>How long have you been using a CAD/CAM System? 4-5 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? One day of the semester lecture and hands on is demonstrated to students</p> <p>What are the prerequisites for its use? No Pre-requisite</p> <p>When do students get to use it? In sim lab and Clinics</p> <p>Who provides supervision? Faculty</p> <p>What training did they get? Training through in-service</p>
Indiana	<p>YES</p> <p>Which courses? Single Tooth Indirect Restorations (2nd Semester First Year), Fixed Prosthodontics (2nd Semester Second Year)</p> <p>What System? Currently we are using 2011 version of E4D (Planmeca)</p> <p>How long have you been using a CAD/CAM System? 2011</p> <p>How are you using CAD/CAM in your pre-clinical courses? First Year: CAD/CAM is introduced within the first year course Single Tooth Indirect Restorations. Students scan a prepared stock cast and design a posterior restoration as a training exercise. They then prepare an all-ceramic crown preparation on a dentoform premolar and scan and design the restoration on their own. The design is milled in Emax cad, then crystallized and glazed. The student uses a resin cement system (Nexus) to cement the restoration to their dentoform. They are given the opportunity to evaluate the restoration and the CAD/CAM procedure.</p> <p>Second Year: Since the second year students have already been exposed to the E4D software, the students are expected to prepare a central incisor for an all-ceramic crown and scan, design and mill a restoration using Empress. Students are also guided through the staining and glazing process. The students are then given the opportunity to evaluate the restoration and the CAD/CAM procedure.</p> <p>What are the prerequisites for its use? Training session in first year course Single Tooth Indirect Restorations.</p> <p>When do students get to use it?</p> <p>All students in both of the above courses have access to three stationary E4D units at any time the simulator laboratory is open (7am to midnight).</p> <p>Who provides supervision? Trained E4d instructors direct the students in their preparations and the design of the CAD restoration within the first and second year courses. Once the student has had training, there is no supervision when using the three laboratory machines.</p> <p>What training did they receive? The instructors receive the a four hour training session and mill a restoration for a pre-prepared tooth.</p>
Michigan	<p>YES</p> <p>Which courses? D2 Course 620 – Comprehensive Care Clinic – digital impression experience; multiple lectures in various courses</p> <p>What System? 3M</p> <p>How long have you been using a CAD/CAM System? 5 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? Digital impression experience on typodonts and classmates (intraoral experience)</p> <p>What are the prerequisites for its use? None</p>

	<p>When do students get to use it? During rotation assignments during class time</p> <p>Who provides supervision? Faculty with digital impression experience</p> <p>What training did they receive? Basic training course – clinical experience varies by faculty member</p>
Midwestern	<p>YES</p> <p>Which courses?</p> <p>Fall, Winter and Spring D2 courses. Courses are integrated so there isn't a discipline where CAD CAM is taught</p> <p>What System? Sirona Cerec</p> <p>How long have you been using a CAD/CAM System? 5 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? Students prepare, image, mill and cement a crown (Fall Quarter) onlay (Winter Quarter) and veneer (Spring Quarter)</p> <p>What are the prerequisites for its use? No pre requisites, it is required course content</p> <p>When do students get to use it? During class as scheduled</p> <p>Who provides supervision? Designated faculty</p> <p>What training did they get? Training from Sirona</p>
Ohio State	<p>YES</p> <p>Which courses? Operative 4, Autumn D2 year</p> <p>What System? Cerec</p> <p>How long have you been using a CAD/CAM System? 7 years.</p> <p>How are you using CAD/CAM in your pre-clinical courses? To teach CAD/CAM technology. We are purchasing a new system within the next two years to include the ability for scanning a preparation and comparing it to an ideal preparation in the software. We want to start using it in our preclinical operative and fixed courses primarily for students to do self-evaluation with a future possibility of using to help with practical grading. It could also be used in feedback and possible grading for wax-ups.</p> <p>What are the prerequisites for its use? In pre-clinic, being a dental student registered in the appropriate class.</p> <p>When do students get to use it? In Operative 4.</p> <p>Who provides supervision? Faculty who have completed the Basic and Advanced Cerec courses.</p> <p>What training did they get? These instructors have to have been trained on the Cerec system.</p>
Pittsburg	<p>YES</p> <p>Which courses? Fixed Partial Dentures and Cerec Crowns</p> <p>What System? Sirona</p> <p>How long have you been using a CAD/CAM System? 4 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? PrepCheck is used to evaluate crown preparations.</p> <p>What are the prerequisites for its use? Second year students have to successfully complete a lecture course.</p> <p>When do students get to use it? Second year students in their summer semester have to complete a crown prep and Cerec crown on the maxillary right first molar.</p> <p>Who provides supervision? A full time prosthodontist</p>
UIC	<p>YES</p> <p>Which courses? Dental anatomy, Operative, Fixed Prosthodontics and Implant</p>

	<p>What System? E4D system for Dental Anatomy, Operative and Fixed Prosthodontics Trios system for Implant</p> <p>How long have you been using a CAD/CAM System? Over 2 years.</p> <p>How are you using CAD/CAM in your pre-clinical courses?</p> <p>Dental anatomy: The E4D Compare Software is being used as an evaluation tool for students to compare their wax-ups with standardized teeth. Also, this is an introductory course to teach principles of digital dentistry and scanning. Operative: in this course students prepare: An Inlay on tooth #5 and an Onlay on Tooth #14. Students have the opportunity to learn the digital chairside workflow: preparing, scanning, designing, characterizing and milling CAD/CAM fabricated all ceramic restorations.</p> <p>Fixed: in this course students prepare, scan, design, characterize and mill teeth #5 and #8 for an all-ceramic full-contour (e.max) restoration.</p> <p>Implant: Didactic and clinical sessions for Trios system. Students learn how to scan implants for future custom made Atlantis abutments and digitally fabricated implant-supported all ceramic (e.max) full contour restorations</p> <p>What are the prerequisites for its use?</p> <p>Introductory session in the D1 year through compare software and fixed course students need to understand principles of cavity preparation and tooth preparation for all ceramic restorations.</p> <p>When do students get to use it?</p> <p>Due to the limited equipment in the school we can train up to 18 students per session during the D2 year.</p> <p>Who provides supervision?</p> <p>Trained restorative faculty</p> <p>What training did they receive?</p> <p>Through the company representatives from Planmeca E4D and 3Shape system.</p>
West Virginia	<p>YES</p> <p>Which courses? Students are introduced to CAD CAM technologies in pre-clinical fixed course lectures, but none are currently available for use.</p>
Western Ontario	<p>YES</p> <p>Which courses? Basically, Operative 3rd Year, CAD/CAM Elective Discipline</p> <p>What System? Cerec</p> <p>How long have you been using a CAD/CAM System? 8 Years</p> <p>How are you using CAD/CAM in your pre-clinical courses?</p> <p>At the lab, scanning and milling crowns for 2nd year Fixed prosthodontics course</p> <p>Operative Dent 3rd Year – preparations for ceramic onlays</p> <p>Elective discipline, teaching preps, scanning technique, and milling crowns and onlays.</p> <p>What are the prerequisites for its use? Complete 2nd and 3rd Year courses</p> <p>When do students get to use it? End of 3rd Year beginning of 4th</p> <p>Who provides supervision? Faculty and Lab Technicians</p> <p>What training did they receive? Company sponsored training</p>

ii. Are you using CAD/CAM in your clinical courses?

1. **NO**

a. Do you plan on incorporating CAD/CAM clinically?

- i. What System?
- b. How soon?
- 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using a CAD/CAM System?
 - d. How are you using CAD/CAM in your pre-clinical courses?
 - e. What are the prerequisites for its use?
 - f. When do students get to use it?
 - g. Who provides supervision?
 - h. What training did they receive?

Buffalo	<p>YES</p> <p>Which courses? Indirect restoration</p> <p>What System? Planmeca/E4D and TRIOS 3shape</p> <p>How long have you been using a CAD/CAM System? 5 years</p> <p>How are you using CAD/CAM in your clinical courses?</p> <p>Students are using the system clinically to record digital impression, design and fabricate an indirect restoration. What are the prerequisites for its use?</p> <p>Students should use the system in preclinical courses, before using it in clinic. When do students get to use it?</p> <p>Students use CAD/CAM during clinical rotation. Who provides supervision?</p> <p>CAD/CAM Director provides supervision. What training did they get?</p> <p>There is first a didactic presentation given by the CAD/CAM Director. Then, there is a small-group, hands on training session with the same person in charge before they can start using CAD/CAM.</p>
Detroit Mercy	<p>YES</p> <p>Which courses?</p> <p>What System? CEREC System, True Definition Scanner</p> <p>How long have you been using a CAD/CAM System? 4-5 years</p> <p>How are you using CAD/CAM in your pre-clinical courses?</p> <p>What are the prerequisites for its use? Preclinical training</p> <p>When do students get to use it? Simlab and clinics</p> <p>Who provides supervision? Faculty</p> <p>What training did they get? In-service and training for a day</p>
Indiana	<p>YES</p> <p>Which courses? All courses in clinical restorative dentistry (operative and prosthodontics) have access to the units. Both undergraduate and graduate.</p> <p>What System? E4D (Planmeca)</p> <p>How long have you been using a CAD/CAM System? Since 2011</p> <p>How are you using CAD/CAM in your clinical courses? Students make impressions in the clinic and pour mounted casts. They then scan these casts and design the restoration. Trained faculty then inspect and approve the designs before issuing a ceramic block and milling the crown. If a student has difficulty, instructors are available to help design. Students are responsible for glazing and any staining needed. After the students have proven themselves proficient in this method, they are permitted to check out a clinical unit for scanning chairside. Since faculty are very busy, the student must have enough experience and knowledge to proceed without direction.</p>

	<p>What are the prerequisites for its use? Training during first and second year or training within a graduate section.</p> <p>When do students get to use it? Three laboratory units are available for design at all time the simulator lab is open. Clinical units are available upon reservation.</p> <p>Who provides supervision? For clinical cases, there are 4 faculty who provide help and guidance when designing. Clinical scanning help is available upon advance reservation. Otherwise, the clinical student works without supervision.</p> <p>What training did they receive? The instructors who approve clinical designs were initially trained by D4D (Planmeca) personnel. They were given elementary and advanced courses in the use of the design software.</p>
Michigan	<p>YES</p> <p>Which courses? Course 653 – D2 introduction; Course 732 – D3 Advanced Restorative Dentistry</p> <p>What System? Multiple systems – both digital impression systems and chairside systems are discussed; clinical experience is primarily CEREC (BlueCam and OmniCam)</p> <p>How long have you been using a CAD/CAM System? 20+ years</p> <p>How are you using CAD/CAM in your pre-clinical courses? 5 years</p> <p>What are the prerequisites for its use? None</p> <p>When do students get to use it? As early as D3 clinic – opportunity depends on cases in student’s patient family</p> <p>Who provides supervision? Faculty in Graduate Restorative Clinic</p> <p>What training did they receive? UM has been a CEREC training center since 2000. Attending faculty have significant clinical research and clinical care experience with CEREC</p>
Midwestern	<p>YES</p> <p>Which courses? In clinic for patient care</p> <p>What System? Sirona Cerec</p> <p>How long have you been using a CAD/CAM System? 3 years since the clinic opened</p> <p>How are you using CAD/CAM in your pre-clinical courses? Answered in the above section</p> <p>What are the prerequisites for its use? None, except the procedure must be part of a comprehensive treatment plan accepted by the patient</p> <p>When do students get to use it? During clinic hours and when faculty are available</p> <p>Who provides supervision? Clinic faculty who feel comfortable with CAD CAM</p> <p>What training did they get? Private practice and from Sirona</p>
Ohio State	<p>YES</p> <p>Which courses? Clinic treatment courses.</p> <p>What System? CEREC</p> <p>How long have you been using a CAD/CAM System? 7 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? See above.</p> <p>What are the prerequisites for its use? In clinic, students must have completed two indirect procedures using conventional impressions and lab work, have a restoration recommended on the approved treatment plan, and having the attending faculty in the Technology Center approve the restoration. Many of these restorations are indirect large posterior Class II composites.</p> <p>When do students get to use it? In the clinic, they can use it by having an instructor agree with their diagnosis of a CAD/CAM restoration, having the CAD/CAM instructor confirm that it is an appropriate restoration, and then scheduling it in the Technology Center.</p> <p>Who provides supervision? Faculty who have completed the Basic and Advanced Cerec courses.</p>

	What training did they get? Basic and Advanced Cerec courses.
Pittsburg	<p>YES Which courses? Prosthodontic Cerec course</p> <p>What System? Sirona</p> <p>How long have you been using a CAD/CAM System? 4 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? Same as above</p> <p>What are the prerequisites for its use? Successful completion of the course which requires the student to complete a Cerec three unit bridge on a typodont. This procedure must be completed prior to doing a Cerec crown in the patient clinic.</p> <p>When do students get to use it? 3rd and 4th year in the Cerec clinic</p> <p>Who provides supervision? A full time prosthodontist</p> <p>What training did they receive?</p>
UIC	<p>YES Which courses? Digital Dentistry Section and Implant Section from the Comprehensive Care clinic courses.</p> <p>What System?</p> <p>E4D Planmeca system for intraoral scanning, designing and milling</p> <p>Trios 3Shape for intraoral scanning</p> <p>3Shape and Dental wings for lab-scanning</p> <p>How long have you been using a CAD/CAM System? 1 year</p> <p>How are you using CAD/CAM in your clinical courses?</p> <p>Implant course: students must first do a conventional impression, and on their second case they can make a digital impression.</p> <p>For tooth-supported restorations, once the student identifies a case, they go over a checklist and schedule the patient in the digital clinic for consultation and/or treatment.</p> <p>What are the prerequisites for its use?</p> <p>Students must:</p> <p>1.Participate in hands on training in pre-clinical courses 2.Review case selection checklist 3.Plan a consultation with digital core faculties.</p> <p>All digital support material has been uploaded in our college blackboard site for students to review and be prepared for their clinical sessions.</p> <p>When do students get to use it?</p> <p>Students must go over a checklist for case selection; they have done some bench top/ hands on training in the pre-clinical course and have material uploaded in blackboard to prepared for the clinical session. They are expected to review this to be able to treat the patient.</p> <p>Who provides supervision? Restorative trained faculty</p> <p>What training did they receive?_They received training from E4D Planmeca and from 3Shape. They also had some previous training and clinical experience with Cerec system</p>
West Virginia	<p>NO</p> <p>Do you plan on incorporating CAD/CAM clinically? Yes</p> <p>What System? Unsure</p> <p>How soon? We just got a system in our grad pros program (model scanner Zfx from Zimmer), and we are currently in process of creating an innovation center for introducing students to various technologies available by various dental technology manufacturers.</p>

Western Ontario	<p>YES</p> <p>Which courses? Dental Clinics</p> <p>What System? Cerec</p> <p>How long have you been using a CAD/CAM System? 8 years</p> <p>How are you using CAD/CAM in your pre-clinical courses? Described above</p> <p>What are the prerequisites for its use? Same as above</p> <p>When do students get to use it? 4th year</p> <p>Who provides supervision? Faculty/Lab technician</p> <p>What training did they receive? Same as above</p>
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iii. Are you using virtual reality haptic feedback training?

1. NO

a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses?

b. What System?

c. How long have you been using Virtual Reality Haptic Feedback Training?

d. Who provides supervision?

i. What training did they receive?

ii. What System?

iii. How is it being used?

e. Is it efficacious?

Buffalo	<p>NO</p> <p>Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? We don't have it yet, but we plan on incorporating Haptic Feedback Training in our pre-clinical courses.</p> <p>What System? We have looked into Simodont from Moog. Decision has not been made yet.</p> <p>How soon? Not decided yet, possibly Next Year</p>
Detroit Mercy	NO
Indiana	NO
Michigan	<p>No. Have tried some systems as pilots but not regularly used.</p> <p>Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? Not routinely.</p>
Midwestern	NO

	Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? No, there has been no discussion of incorporating virtual reality haptic in any course
Ohio State	NO
Pittsburg	NO Do you plan on incorporating Virtual Reality Haptic Feedback: Training in your pre-clinical courses? Yes What System? We have evaluated and had a demonstration of three systems in our school. Each system was present for at least three days allowing our students and faculty to experiment with the system. We received an abundant amount of feedback both positive and negative. The systems were Moog's Simodont, Dent Sim and Inliant Clinical Dental Navigation System. How soon? Within 1 year as we remodel and equip a separate room for their use. At this time, we are leaning to purchasing the Inliant system which we feel will better serve our students learning process. We are unsure of the number of systems we will purchase.
UIC	NO
West Virginia	NO
Western Ontario	NO

iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. NO

- a. Do you plan on incorporating Digital Impressions in your clinical courses?
- b. What System?
- c. How soon?

2. YES

- a. What System?
- b. How long have you been using a Digital Impression System?
- c. What are the prerequisites for its use?
- d. When do students get to use it?
- e. Who provides supervision?
- f. What training did they receive?

Buffalo	YES Which courses? Indirect restoration What System? Planmeca/E4D and TRIOS 3shape How long have you been using a CAD/CAM System? 5 years How are you using CAD/CAM in your clinical courses? Students are using the system clinically to record digital impression, design and fabricate an indirect restoration. What are the prerequisites for its use? Students should use the system in preclinical courses, before using it in clinic. When do students get to use it? During clinical rotation. Who provides supervision? Director of CAD CAM dentistry. What training did they get?
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	There is first a didactic presentation given by the CAD/CAM Director. Then, there is a small-group, hands on training session with the same person in charge before they can start using CAD/CAM.
Detroit Mercy	<p>YES</p> <p>What System? True Definition scanner</p> <p>How long have you been using a Digital Impression System? 4-5years</p> <p>What are the prerequisites for its use? Simlab orientation</p> <p>When do students get to use it?</p> <p>Who provides supervision? Faculty</p> <p>What training did they get? In service and training</p>
Indiana	<p>YES</p> <p>What system: E4D (Planmeca)</p> <p>How long have you been using? Since 2011</p> <p>How are you using CAD/CAM? Students make impressions in the clinic and pour mounted casts. They then scan these casts and design the restoration. Trained faculty then inspect and approve the designs before issuing a ceramic block and milling the crown. If a student has difficulty, instructors are available to help design. Students are responsible for glazing and any staining needed. After the students have proven themselves proficient in this method, they are permitted to check out a clinical unit for scanning chairside. Since faculty are very busy, the student must have enough experience and knowledge to proceed without direction.</p> <p>What are the prerequisites for its use? Training during first and second year or training within a graduate section.</p> <p>When do students get to use it? Three laboratory units are available for design at all time the simulator lab is open. Clinical units are available upon reservation.</p> <p>Who provides supervision? For clinical cases, there are 4 faculty who provide help and guidance when designing. Clinical scanning help is available upon advance reservation. Otherwise, the clinical student works without supervision.</p> <p>What training did they receive? The instructors who approve clinical designs were initially trained by D4D (Planmeca) personnel. They were given elementary and advanced courses in the use of the design software.</p>
Michigan	<p>YES</p> <p>What System? We used to do Lava COS digital impressions in the clinics that utilized 3D printed models but those machines are now out of service and we are waiting for an administrative decision on how to replace</p> <p>How long have you been using a Digital Impression System? Approximately 5 years</p> <p>What are the prerequisites for its use? None</p> <p>When do students get to use it? D3 Clinic</p> <p>Who provides supervision? General dentistry or prosthodontic faculty with experience in digital impressions</p> <p>What training did they receive? Varies</p>
Midwestern	<p>YES</p> <p>What System? Sirona Cerec</p> <p>How long have you been using a Digital Impression System? Pre clinic 5 years, Clinic 3 years</p> <p>What are the prerequisites for its use? None</p> <p>When do students get to use it? During class or clinic hours</p> <p>Who provides supervision? Designated faculty who are comfortable with imaging</p> <p>What training did they get? Private practice and from Sirona at faculty calibration sessions</p>
Ohio State	<p>YES</p> <p>What System? True Definition</p> <p>How long have you been using a Digital Impression System? 4 years</p>

	<p>What are the prerequisites for its use? Graduate Prosthodontics.</p> <p>When do students get to use it? In Graduate Prosthodontics Clinic.</p> <p>Who provides supervision? Graduate Prosthodontics Faculty</p> <p>What training did they get? Do not know.</p>
Pittsburg	<p>YES</p> <p>What System? Sirona</p> <p>How long have you been using a Digital Impression System? 4 years</p> <p>What are the prerequisites for its use? Successful completion of a lecture course and procedures on a typodont. These procedures involve a crown prep, a 3 unit bridge prep and the respective Cerec prosthodontic treatment.</p> <p>When do students get to use it? Clinically 3rd and 4th year</p> <p>Who provides supervision? A full time prosthodontist</p> <p>What training did they receive?</p>
UIC	<p>YES</p> <p>What System? Trios System by 3Shape and E4D</p> <p>How long have you been using a Digital Impression System? 2 years</p> <p>What are the prerequisites for its use? Explained above</p> <p>When do students get to use it? D3 and D4 students in clinical cases.</p> <p>Who provides supervision? Restorative Trained faculty</p> <p>What training did they receive? Faculty have attended training sessions at Planmeca University and representatives from 3Shape Company came to school to train all faculties involved in the digital curriculum</p>
West Virginia	<p>YES - See above answer under CAD/CAM technology</p>
Western Ontario	<p>YES</p> <p>What System? Cerec</p> <p>How long have you been using a Digital Impression System? 8 years</p> <p>What are the prerequisites for its use? Op Dent 3rd year CAD/CAM elective course</p> <p>When do students get to use it? End of 3rd Year beginning of 4th</p> <p>Who provides supervision? Faculty and Lab Technicians</p> <p>What training did they receive? Company sponsored training</p>

v. Are you using 3D printing for any pre-clinical or clinical application?

1. NO

- a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
- b. What System?
- c. How soon?

2. YES

- a. What System?
- b. How long have you been using 3D printing?
- c. How do you use 3D printing?
- d. What are the prerequisites for its use?
- e. When do students get to use it?
- f. Who provides supervision?
- g. What training did they receive?

vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

Buffalo	No We are not using it currently and there is no plan.
Detroit Mercy	No
Indiana	No
Michigan	YES What System? See above. Some students are doing a pathways project using 3D printing. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. Already in use
Midwestern	NO Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? No, there has been no discussion of incorporating 3D printing in any course How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. Faculty have regular calibration / training sessions where new technology is introduced. But faculty are still not at a level of comfort with some new technology – so although the equipment / system is available – faculty are hesitant to use it
Ohio State	YES What System? We have a 3Shape scanner and a 3D printer in our fixed laboratory. How long have you been using 3D printing? 3 or 4 years. How do you use 3D printing? The in-school laboratory uses it in the fabrication of fixed restorations. What are the prerequisites for its use? NA When do students get to use it? NA Who provides supervision? NA What training did they get? NA How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. It is hard. They must take the training and begin using the technology on their own patients. One possible solution would
Pittsburg	NO Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? Yes. One of our full time prosthodontist won the 2016 William Gies award for 3D printing of a RPD framework. What System? Unsure How soon? Unsure as we are conducting further research at this time.

	How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. Most of our faculty are supportive of the new technologies. However, some faculty members are reluctant to learn new technologies. Therefore, it is incumbent upon us who will be the driving force behind these new technologies to show them the benefits that will be gained from their use. New technologies in themselves are not beneficial because of their innovation but must be proven to be a positive learning tool for students and advantageous for the patient.
UIC	NO How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. Our college has created different faculty development sessions to update faculty with digital technology, workflow and digital student requirements included in our curriculum. At this time our college has designated one specific clinic for all digital assisted restorations developed chairside. Additionally, a laboratory facility is located next to the clinic, when cases require a laboratory scale digital technology.
West Virginia	NO Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? Likely, but unsure of system/ timeline as those technologies are developed/advanced. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. Suggested topic for during a faculty retreat to train, calibrate and encourage faculty teaching.
Western Ontario	NO Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? Yes What System? To be discussed How soon? 1 to 2 years

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?
- ii. What are your normal hours per clinical session?
- iii. How are your clinical groups set-up?
- iv. How do your clinical groups function?
- v. How long have you had your current structure?
- vi. Do you plan on changing in the near future?

Buffalo	How many pre-doctoral students do you have per class? 93 students in the D1 and D2 class, 111 in the D3 and D4 class, 27 students in the International Dentist Program. What are your normal hours per clinical session? 9AM-12PM and 1PM-4PM Monday-Friday How are your clinical groups set-up? There are six practice groups that consist of a mix of D3 and D4 students. Each practice group is supervised by an assigned faculty Group Director. How do your clinical groups function? UB clinic follows comprehensive care model. How long have you had your current structure? Three years. Do you plan on changing in the near future? No
Detroit Mercy	How many pre-doctoral students do you have per class? 144 per undergraduate class What are your normal hours per clinical session? 9-11:30, 12:30-3 and 3:30-6 How are your clinical groups set-up? DS3 and DS4's in separate clinics, and based on the clinical procedure they are working on How do your clinical groups function? ???? How long have you had your current structure? 2 years Do you plan on changing in the near future? May be
Indiana	How many pre-doctoral students do you have per class?

	<p>In the first and second year, there are about 106 per class. In the second year, second semester, IDP students are integrated and there are 14 of them. By the third and fourth years, IDP and Pre-doc students combined to give a total of around 120/class those years.</p> <p>What are your normal hours per clinical session?</p> <p>The morning session is from 9:00 to noon, the afternoon session is from 1:30 to 5:00. However, these boundaries are pushed often as students continually attempt to work past time. Depending on the faculty member out on the floor, some are willing to bend the rules.</p> <p>Per the Restorative Clinical Manual: Comprehensive Care Clinic Hours</p> <p>The Comprehensive Care Clinics offer morning and afternoon patient appointment sessions. Clinics are open from 9:00 a.m. to 12:00 p.m. and from 1:30 p.m. to 5:00 p.m. Students and patients are required to arrive early to begin on time with faculty approval and a Start Check in axiUm. Students and patients must be present within 15 minutes of the scheduled appointment to avoid loss of the appointment. Experienced students may schedule a second appointment during a session. ALL second appointments must begin no later than 10:30 a.m. or 3:00 p.m. with NO exceptions. Generally, these appointments will be limited to procedures which do NOT consist of master impressions, preparation of teeth, or the placement of a definitive restoration or prosthesis.</p> <p>ALL PATIENT PROCEDURES MUST CEASE 15 MINUTES (by 11:45 a.m. and 4:45 p.m.) PRIOR TO THE CLOSING OF CLINICS. This can be achieved with both the faculty and student recognizing the student's skill level, the complexity of the procedure(s) and limitations of time and availability. There should be very few exceptions to this RULE.</p> <p>How are your clinical groups set up? There are 7 comprehensive care clinics, with each clinic having around 30-35 students. Each clinic has a clinic director who assigns charts, monitors student progression, etc. Each clinic also has a clinic coordinator staff member who aids in facilitating scheduling requests and such. The clinics have anywhere from 12-16 chairs available each session, depending on the clinic. Therefore there are not enough chairs for each student and we depend heavily on rotations, etc. at the moment to relieve scheduling difficulties.</p> <p>How do your clinical groups function? In the comprehensive clinic setting, both third and fourth year students perform periodontics, prosthodontics, operative, and caries risk procedures. Endo, oral surgery, pedo, and ortho are all still discipline based and students have to schedule within those clinics for those procedures. Additionally, the students do still schedule their own patients at this time. We have a pilot program in place where the clinic coordinator schedules all appointments for students and it is taken out of their hands. The outcomes will be assessed at the end of the semester.</p> <p>How long have you had your current structure? Since 1992. Plans are in the works to completely change this plan in 2018 with the completion of our new dental school building.</p> <p>Do you plan on changing in the near future? In 2018, our new dental school building should be completed. It will add a host of new chairs for students to treat patients. At that point they plan to move to the "Buffalo model." They plan to go back to a system where the D3 year will be discipline based and the D4 year (or proving competency) will truly be comprehensive care clinic in nature in the new building. They also plan to have more community based education programs available in the 4th year for students to do more external rotations for additional experiences.</p>
Michigan	<p>How many pre-doctoral students do you have per class? D4 – 117, D3 – 129, D2 – 106, D1 – 109</p> <p>D1 and D2 classes are limited to a maximum of 110 students due to space limitations of the preclinical simulation lab (110 workstations). Also need to allow some flexibility if students need to repeat a year or take leave and return.</p> <p>D3 and D4 classes include 20 Internationally Trained Dentist Program (ITDP) students. ITDP offers an opportunity for dentists who are graduates of foreign dental schools to obtain a DDS degree. The 28 month program begins in January each year as ITDP students share in a hybrid semester with D2 students before fully joining the D3 class for Spring/Summer, Fall and Winter terms. The 2nd year of the program includes didactic and clinical courses as well as required clinical rotations.</p> <p>What are your normal hours per clinical session? Two 3-hour sessions per day: 9am-12pm and 2-5pm. Students have didactic classes 8-9am and 1-2pm</p> <p>How are your clinical groups set-up? D1 students are assigned to one of 4 vertically integrated clinics at the start of D1 year. Vertical patient families– D4, D3, D2, D1 and hygiene students are assigned to groups to share patients. Comprehensive Care Clinics have D3 and D4 students treating patients with sometimes D2 students as well as providers. D2 and D1 students assist and observe. Faculty and chairs are divided into General Dentistry, Prosthodontics, and Periodontics. Separate chairs are reserved for Endodontics and students are supervised by Endo faculty. Oral Path/Oral Med specialists are on pagers and serve all clinics. Students do Pedo, Ortho and Oral Surgery in separate specialty clinics. D3 and D4 students also do several external rotations.</p> <p>D2 students see most general dentistry and perio/prophy patients in a separate Foundations Clinic where they receive closer supervision and assistance by faculty and D4 mentors. A limited number (6-8) of students are assigned to treat patients during these sessions. These students</p>

	<p>have a fellow D2 student as a chairside assistant and a D4 mentor to help with simple questions and guidance before asking for help or checks from faculty. These patients are referred by D3 or D4 students. D4 students are required to have a certain number of mentoring experiences.</p> <p>D3 and D4 students schedule their own patients electronically while a clinic coordinator monitors the daily clinic schedule and assigns chairs.</p> <p>How do your clinical groups function? See above</p> <p>How long have you had your current structure? Approx 5 years</p> <p>Do you plan on changing in the near future? No</p>
Midwestern	<p>How many pre-doctoral students do you have per class? 130</p> <p>What are your normal hours per clinical session? 8:30 – 10:30 10:30 – 12:30 2:00 – 4:30 But will change in Summer 2017 to 9:00 - 12:00 and 1:00 - 4:00</p> <p>How are your clinical groups set-up? 22 students in a suite assigned to 2 full time faculty, three suites assigned to one group practice coordinator</p> <p>How do your clinical groups function? Teams of 2 D3s and 2 D4s. Patients are co assigned to the team members. D4s are responsible for parity within the team</p> <p>How long have you had your current structure? 3 years (that is how long the clinic has been open)</p> <p>Do you plan on changing in the near future? No – only in that D1 and D2 students will have some rotations in the clinic to assist etc.</p>
Ohio State	<p>How many pre-doctoral students do you have per class? 110</p> <p>What are your normal hours per clinical session? 8:30-11:30 am & 1-4 pm Mon – Fri. 5-7:30 pm Tuesday & Thursday.</p> <p>How are your clinical groups set-up? Each class, both dental and dental hygiene, is divided into 8 comprehensive care clinics of approximately equal abilities. The D4 students each spend 50 clinic days serving at community sites as part of the Ohio Project which provides dental care to the underserved throughout the state.</p> <p>How do your clinical groups function? The groups function under a clinic director who is responsible for monitoring student practice of each student in their group and teaching the student how to correct the shortcomings in the student's practice. The clinic directors also monitor their student's experiences and assigning them new patients as needed to meet these graduation requirements experiences.</p> <p>How long have you had your current structure? 2 years with 8 clinics but 10 years with similar organizations but with 4 clinics.</p> <p>Do you plan on changing in the near future? May change with new building. We are currently looking at how we would change so that the new facility will be designed for that organization</p>
Pittsburg	<p>How many pre-doctoral students do you have per class? 78-80 plus 6-8 advanced standing (international) students</p> <p>What are your normal hours per clinical session? Monday – Friday 8:30-4:30 Tuesday 8:30 – 6:00</p> <p>How are your clinical groups set-up?</p> <p>Four teams with 20-22 students per class per team. Each team is assigned a specific module. Therefore, the number of students per team varies because not all our modules have the same number of dental chairs. Teams are created with an even distribution of students based upon their preclinical grades. The students are placed in teams during the summer of their first year. At this time, they are also matched up with a 3rd and 4th year student on their team. This is done at an early stage to enhance their shadowing experience.</p> <p>How do your clinical groups function?</p> <p>Each team has their own module where the following treatment is performed.</p> <p>Screenings (Comprehensive Oral Exams), Prophylaxis, Treatment planning, Restorative procedures, Prosthodontic procedures, Exit exams/Exit prophylaxis</p>

	<p>How long have you had your current structure?</p> <p>Current Module system has been in place for 1 year.</p> <p>Do you plan on changing in the near future?</p> <p>No</p>
UIC	<p>How many pre-doctoral students do you have per class? We have 71 DMDs and 52 DMD Advanced Standing students/class in most recent years.</p> <p>What are your normal hours per clinical session? 3 hours per session from 9:30-12:30 and 1:30 to 4:30PM.</p> <p>How are your clinical groups set-up? We have 4 Comprehensive Care Clinic groups. Students are assigned and complete clinical care in their "Group Practice".</p> <p>How do your clinical groups function? Each Clinical Group (Group Practice) is led by a Faculty "Managing Partner". The Clinic has 25 dental units which accommodate general care including screening, urgent care, comprehensive treatment planning and treatment (restorative, prosthetic, endodontic, Phase I Periodontal care) and maintenance care. Supervising Faculty (generalists, prosthodontists, endodontists and periodontists) are assigned to each of the Clinics. Approximately 45 students are assigned to each Group Practice, and they reserve chairs for patient care unless assigned to internal or extramural rotations.</p> <p>How long have you had your current structure? Approximately 10 years.</p> <p>Do you plan on changing in the near future? The only anticipated change will be to create another Group Practice to accommodate the larger student class size.</p>
West Virginia	<p>How many pre-doctoral students do you have per class? 50-60</p> <p>What are your normal hours per clinical session? 9-12, 1-4 Mon, Tue, Wed, Fri. Thur is 9-12, 2-5... allows for meetings 1-2</p> <p>How are your clinical groups set-up? Main Student Clinic divided into disciplines with assigned numbers of chairs to each: perio, operative, removable, fixed, tx planning. (Separate clinic areas for endo, oral surgery, radiology, oral diagnosis, orthodontics, grad pros, pediatric dentistry, screening, faculty practice.)</p> <p>How do your clinical groups function? An instructor is assigned each day to various students (they don't get to pick unless working with a mentor on a case). An instructor may be assigned to 4-10 students, working in any discipline listed above for Main Clinic.</p> <p>How long have you had your current structure? As long as we can remember, with exception that we now use axium system to help with this.</p> <p>Do you plan on changing in the near future? Our Dean is currently considering changing to a block system. It is interesting that some schools use a block system for 3rd years and comprehensive care for 4th years. This seems reasonable since it is usually 3rd year students that have the greatest lack of patients--- time may be better spent for them in a block. However, it may be difficult to do both block and comprehensive care. (Not sure how we would get patients in a block AND comp care when the issue is lack of patients to begin with) Also, increased staffing needs for managing patients/ scheduling will be a consideration. A lot of research on the subject will be needed before moving forward with any of these changes.</p>
Western Ontario	<p>How many pre-doctoral students do you have per class?</p> <p>1st and 2nd Year = 56</p> <p>3rd and 4th Year = 76</p> <p>What are your normal hours per clinical session? 3 hours</p> <p>How are your clinical groups set-up? Some discipline based, some Multi Disciplinary approach</p> <p>How do your clinical groups function? 6 to 7 students per Faculty</p> <p>How long have you had your current structure? 6 years</p> <p>Do you plan on changing in the near future? No</p>

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients?

iii. If so, what are the main reasons?

Buffalo	<p>How are patients screened for acceptance into your pre-doctoral program? D3 and D4 students participate in a screening rotation where new patients are examined and consulted about being patients at the SDM.</p> <p>Provide numbers screened and yield if available Approximately 2500 patients are screened annually.</p> <p>Are you having difficulty finding suitable patients? Certain types of patients, removable, fixed and endodontic disciplines are difficult.</p> <p>If so, what are the main reasons? Patients have other low cost options and have a difficult time committing to the very restrictive scheduling process. (Three hour appointments are difficult for most patients).</p>
Detroit Mercy	<p>How are patients screened for acceptance into your pre-doctoral program? By assigned faculties during the clinic sessions</p> <p>Provide numbers screened and yield if available Update it later</p> <p>Are you having difficulty finding suitable patients? Sometimes</p> <p>If so, what are the main reasons? Insurance, class size increased</p>
Indiana	<p>How are patients screened for acceptance into your pre-doctoral program? They call in or walk in to make an appointment</p> <p>Approximately 3000 adults and 270 children came into screening in 2016. Most D3s/ D4s have 30-40 charts/ 20 of which are active</p> <ol style="list-style-type: none"> 1. Some patients get accepted, but don't follow thru with treatment 2. Some patients choose to go elsewhere 3. Some patients start treatment, but have payment issues and chart gets locked (can't treat unless emergency) <p>Having difficulties in finding suitable patients= yes Need endo,C/C , RPD, and FPD patients - are implants affecting these choices? Why? Third party corporate entities are matching dental school prices/ patients start shopping Phones are not being answered/ answered but patients don't like answer and choose to go elsewhere</p>
Michigan	<p>How are patients screened for acceptance into your pre-doctoral program?</p> <p>The Patient Admission and Emergency Services (PAES Clinic) provides initial screening for patients whose first visit to the dental school is either for emergency treatment or for evaluation to become a patient. Specific faculty work in the PAES clinic and screen patients and supervise students performing emergency treatment. Radiographs are taken at that time (FMXR or pano/BWXR) by students if the patient cannot provide a recent set from another provider. Expected treatment needs are identified (such as periodontal treatment, RPD's). Based on the patient's needs, patients are assigned to a provider level (D2, D3, D4 or Grad). Patient Care Coordinators for each of the four Vertically Integrated undergraduate clinics then assign the patient to a particular student based on their expected treatment needs so that treatments are distributed among patients. Students then perform a comprehensive treatment plan in the VIC clinics with general dentistry faculty as their first patient encounter.</p> <p>Provide numbers screened and yield if available – NA</p> <p>Are you having difficulty finding suitable patients? Yes, for some disciplines.</p> <p>If so, what are the main reasons? Treatment costs, patient expectations, and speed of care</p>
Midwestern	<p>How are patients screened for acceptance into your pre-doctoral program? Patients are screened and accepted or rejected by the group practice coordinators</p> <p>Provide numbers screened and yield if available Daily screening. About 27 patients are screened per day (380 per month estimate). 95% of the patients are accepted.</p> <p>Are you having difficulty finding suitable patients? Difficulty finding certain types of cases: FPD, RPD, implant and pediatric</p> <p>If so, what are the main reasons? Financial reasons for FPD, RPD and implant. The clinic is located in a suburban location, does not have extended hours limiting pediatric cases</p>
Ohio State	<p>How are patients screened for acceptance into your pre-doctoral program? There are 16 intake appointments with one of our students on an intake rotation each clinic half day with 2 in each clinic. In the summer semester there is one D4 and one D3 assigned to each intake appointment. These patient intake appointments consist of taking needed radiographs, completing a Medical History, Head and Neck examination, an oral cancer screening, a radiographic examination, and an intra-oral dental examination. This is normally all that can be completed at that 90 minute appointment. The 2nd patient appointment is then app made with the student who has conducted the intake appointment. At this appointment, the student completes periodontal and restorative charting on the Axium system forms. Diagnosis and treatment planning is then completed. It is</p>

	<p>important as part of this appointment that the patient knows all of their possible choices, the advantages and disadvantages of each possible treatment plan, and the total cost of each treatment plan. Then the chosen plan is entered into the Axiom system and approved by the patient.</p> <p>Provide numbers screened and yield if available 5500 screening appointments were available; 3542 Screening appointments were completed; 2131 new patients scheduled a second appointment.</p> <p>Are you having difficulty finding suitable patients? Yes in some areas.</p> <p>If so, what are the main reasons? The main reason for patients not returning for dental treatment was the cost and some of the patients stating that they thought that treatment at the dental school clinics were free.</p>
Pittsburg	<p>How are patients screened for acceptance into your pre-doctoral program? Patients who are non-emergency patients call the dental school and are given a screening appointment with a student. We do not have a separate screening department. Once the patient is screened, they remain with that student unless the treatment is too complex for the student's level of expertise. If this is the case, the patient will then be transferred either to another more advanced pre-doctoral student or a graduate resident.</p> <p>Provide numbers screened and yield if available: Year 2015 we had approximately 3500 screenings scheduled.</p> <p>Are you having difficulty finding suitable patients? We are screening an appropriate number of patients. However, a low percentage of these patients complete their treatment plans for various reasons. Because the disease phase of their treatment has to be completed prior to the prosthodontic phase, we do have trouble finding suitable prosthodontic patients.</p> <p>If so, what are the main reasons? The length of time it takes to complete treatment plans at our dental school. Departmental protocol many times interferes with common sense in treating patients. Many student's lack the ability or desire to educate their patients as to why the proposed dental treatment is important for their long-term dental health. Many students have less than acceptable interpersonal communication skills and patient management skills which leads to lower patient retention rates.</p>
UIC	<p>How are patients screened for acceptance into your pre-doctoral program? Patient candidates are screened with a brief medical history, and a "tongue blade" exam to identify appropriateness for the PreDoctoral Clinical Program. Candidates are not accepted if the ASA Classification is greater than 3, or if the dental needs or expectations of the candidate exceed what can be provided in the program. After acceptance for care, a panoramic image is taken and reviewed, and a student is identified by the Managing Partner for the assignment.</p> <p>Provide numbers screened and yield if available. Approximately 30 patients are screened each weekday. The acceptance rate is approximately 80%.</p> <p>Are you having difficulty finding suitable patients? We are fortunate to have no issues with finding suitable patients.</p>
West Virginia	<p>How are patients screened for acceptance into your pre-doctoral program? There are 4 screening sessions per week with 6 patients scheduled. We also periodically do "mass screenings" where 10 patients per session are booked.</p> <p>Provide numbers screened and yield if available Typically, approx. 50% of scheduled patients show for the screening appt. Of those, we lose some due to finances, complex need (go to grad pros) or loss of interest/ follow up. Estimated 25-30% yield.</p> <p>Are you having difficulty finding suitable patients? Always</p> <p>If so, what are the main reasons? Area of great dental need, but those with greatest needs are those with the most financial restraints. Those with less financial restraints go to a dentist in the community—as the area is saturated with dentists who have graduated from our school.</p>
Western Ontario	<p>How are patients screened for acceptance into your pre-doctoral program?</p> <p>Screening from community referrals, Dental Hygiene programs, and self referred patients</p> <p>Provide numbers screened and yield if available (?)</p> <p>Are you having difficulty finding suitable patients? Yes</p> <p>If so, what are the main reasons? Financial</p>

VIII. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control?
2. Do you use Sodium Diamine Fluoride for caries control?

ii. What evidence do you have to support your use/non-use?

Buffalo	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Fluoride varnish and prescription 5000ppm toothpaste</p> <p>Do you use Carbamide Peroxide for caries control? We do not use Carbamide Peroxide.</p> <p>Do you use Sodium Diamine Fluoride for caries control? It is taught in the classroom; we do not yet teach it in clinic.</p> <p>What evidence do you have to support your use/non-use? There is evidence; we just do not yet teach it in clinic.</p>
Detroit Mercy	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients?</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? No</p> <p>What evidence do you have to support your use/non-use? Presentation was done in school we are thinking in those lines</p>
Indiana	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Topical fluorides – primarily 5% NaF varnish & 5000 ppm NaF dentifrice</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? Mentioned in D2 Operative/Cariology lecture; seminar topic in Graduate Operative Dentistry. We have used it in Graduate Operative & Graduate Pediatric Dentistry clinics; not yet available in pre-doctoral clinics.</p> <p>What evidence do you have to support your use/non-use? Substantial literature on SDF; recent FDA approval for use as a cavity liner & desensitizing agent.</p>
Michigan	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Chairside fluoride varnish OTC fluoride mouthrinse (i.e, Act) Prescription fluoride toothpaste (i.e., Prevident)</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? Covered in Cariology lectures and available but rarely used</p>
Midwestern	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients?</p> <p>Fluoride varnish or prescription for Prevident are the most commonly used therapies for moderate and high risk for caries patients</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? Just has been approved for use in the clinic</p> <p>What evidence do you have to support your use/non-use?</p> <p>Multiple studies support the use of SDF as a simple and cost effective method for caries control Randomized clinical trial on arresting dental root caries through SDF applications in community dwelling elders; Li R, Lo EC, Liu BY; 2016 A randomized clinical trial on arresting dentine caries in preschool children by topical fluorides - 18 month results; Duanthip D, Chu CH ; 2015 Efficacy of SDF for arresting caries treatment Yee R, Holmgran C; 2009</p>
Ohio State	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Chlorohexidine, MI Paste, Buffering Mouth wash (Baking Soda in water), normal fluoride products.</p> <p>Do you use Carbamide Peroxide for caries control? No.</p> <p>Do you use Sodium Diamine Fluoride for caries control? No but are considering it now.</p> <p>What evidence do you have to support your use/non-use</p>

Pittsburg	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Preident 5000 (Sodium fluoride 1.1%)</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? No</p> <p>What evidence do you have to support your use/non-use? Research shows that Preident 5000 can aid in the remineralization process. Also, fluoride reduces the pH at which demineralization occurs.</p>
UIC	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients?</p> <p>For moderate to high risk patients we recommend a variety of fluoride based products with different concentrations and delivery systems. Very commonly we prescribe Sodium Fluoride 5000PPM (Preident or Clinpro) in addition to fluoride varnish application 3 or 4 times a year (q 3 months). Although we support the use of calcium-based products such as MI paste or Enamelon we are not dispensing it to our patients. Soon we will start dispensing remineralization and antibacterial products to our high-risk patients. We also recommend either 100% Xylitol gum or mints, 4 times a day until it reaches the therapeutic dose of 8 grs. Regarding antibacterial, Chlorhexidine is the agent of choice. For those patients with dry mouth we recommend an alcohol-free rinse.</p> <p>Do you use Carbamide Peroxide for caries control? We do not.</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? The Dental Materials Committee has discussed the implementation of silver diamine fluoride in our adult clinic, but no decision has been made due to the heavy staining. It is currently used in pediatric dentistry clinics only.</p> <p>What evidence do you have to support your use/non-use? For fluoride, ADA guidelines in addition to all systematic reviews and clinical trials. There is lack of evidence to support the use of Carbamide peroxide.</p>
West Virginia	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? Preident, MI Paste, Periomed, Chlorhexidine/CAMBRA guidelines at each clinical unit- students instructed to follow. They are also required to complete a caries risk form for each pt. in the electronic rchart with associated risk and management recommendations.</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? No- currently reviewing lit on this.</p> <p>What evidence do you have to support your use/non-use?</p>
Western Ontario	<p>What chemotherapeutics are you using for your moderate and high-risk caries patients? None</p> <p>Do you use Carbamide Peroxide for caries control? No</p> <p>Do you use Sodium Diamine Fluoride for caries control? No</p> <p>What evidence do you have to support your use/non-use?</p>

a. Caries Removal

i. Do you teach total or partial caries removal?

Buffalo	<p>In the classroom, students are taught four approaches to the deep caries lesion, with advantages and disadvantages of each: Direct Pulp Cap, Indirect Pulp Cap, Stepwise Excavation, Partial Caries Removal</p>
Detroit Mercy	Total
Indiana	<p>Caries Removal</p> <p>Do you teach total or partial caries removal?</p> <p>Partial caries removal (providing patient symptoms, pulpal & radiographic evaluations suggest pulpal vitality); faculty calibration is a challenge</p>
Michigan	<p>Do you teach total or partial caries removal?</p> <p>Remove ALL infected dentin.</p> <p>Remove affected dentin if pulp exposure unlikely.</p> <p>If pulp exposure is likely, OK to leave affected dentin. Place CaOH and glass ionomer liner over area in these situations.</p>

Midwestern	NO
Ohio State	Partial. The students get mixed opinions from their didactic classes and some of their clinic faculty. The instructions are that they must remove infested dentin and may leave affected dentin as they approach the pulp. This affected dentin must be removed from the margins as this is not near the pulp. Any remaining affected dentin should be covered by a GI or RMGI liner and then a permanent restoration placed.
Pittsburg	Do you teach total or partial caries removal? Depends on who you ask. My personal take on this is that the faculty who teach cariology and are knowledgeable concerning evidence based dentistry tell the students that it is acceptable to perform partial caries removal. However, these faculty members are not on the clinic floor helping the students treat their patients. Our clinical restorative faculty of whom many are part time instructors and also have a private practice, teach total removal of caries unless within 0.5 mm from the pulp.
UIC	Do you teach total or partial caries removal? We teach both complete and partial caries removal. There is substantial evidence that complete caries removal is not needed for success as long as the restoration is well sealed. Restored teeth with partial caries removal have equal success compared to restored teeth with complete caries removal (Hilton, 2009). There is no evidence that partial caries removal is detrimental in terms of signs, symptoms, pulpitis occurrence or restoration longevity. However, there are challenges to teaching the concept of partial caries removal to our pre-doctoral students due to their limited clinical experience, the preparation for licensure exams, our high caries risk population, or if the tooth is an abutment for an FPD/RPD and faculty calibration with regards to performing indirect pulp capping.
West Virginia	Do you teach total or partial caries removal? Total caries removal for permanent restoration. Partial only in emergent situation where placing a temporary restoration, or in a caries control case- utilizing glass ionomer (Fugi Triage or LC).
Western Ontario	Do you teach total or partial caries removal? Partial, only in deep caries

IX. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
- ii. Do you use bulk fill composite resin clinically?
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?

Buffalo	<p>Do you teach the use of bulk fill composite resin pre-clinically? No, we don't. We believe during their DDS training in pre-clinic and clinic, students should first learn incremental placement.</p> <p>Do you use bulk fill composite resin clinically? No, we don't. We believe during their DDS training in pre-clinic and clinic, students should first learn incremental placement.</p> <p>Which material(s) do you use? Tetric Evo Ceram for posterior composites. Empress Direct for anterior esthetic cases.</p> <p>What is your preferred technique for use? Horizontal incremental layering with application of oblique increments on last application so as not to connect opposing enamel cusps.</p> <p>What evidence do you have to support your use/non-use? We base a great number of our decisions on the adopted textbooks for the discipline (Summit, Phillips and Sturtevant's).</p>
Detroit Mercy	<p>Do you teach the use of bulk fill composite resin pre-clinically? Yes Lecture</p> <p>Do you use bulk fill composite resin clinically? No</p> <p>Which material(s) do you use? TetricE10 team bulk/SDR flow</p> <p>What is your preferred technique for use? Incrementally and bulk the final layer</p> <p>What evidence do you have to support your use/non-use? Dr.Pacheco's research</p>
Indiana	<p>Do you teach the use of bulk fill composite resin pre-clinically? Pre-clinically and in undergraduate clinics- incremental fill is taught</p> <p>Do you use bulk fill composite resin clinically?- no</p> <p>Which material(s) do you use?- use incremental technique/ current resin is on undergraduate is Point 4/ same as pre-clinical technique</p>

	<p>What is your preferred technique for use?- incremental build up</p> <p>What evidence do you have to support your use/non-use?</p> <p>Current evidence based dentistry support incremental technique</p> <p>Core-restore is used for core build ups and for blocking out of undercuts if 3 supporting walls of prep are present</p> <p>Dental materials perspective- Bulk pack resins are discussed in D3 Dental Materials lecture course (both pros and cons)</p> <p>Bulk pack- no wear resistance/ even though "suggested" for posterior resins</p> <p>Numerous types of bulk pack resin are available</p> <p>Theory behind bulk pack- faster/ only one cure with light/ however deeper 4-5 mm cure versus 1-2 mm cure with incremental cure</p> <p>Issues with bulk pack= no wear resistance/ only cures on "top"= more flexible...may not be ideal for restoration</p>
Michigan	<p>Bulk Fill Composite Resin</p> <p>Do you teach the use of bulk fill composite resin pre-clinically? Only core materials</p> <p>Do you use bulk fill composite resin clinically? Only core materials</p> <p>Which material(s) do you use? CompCore AF</p> <p>What is your preferred technique for use?</p> <p>Clean tooth with water and air.</p> <p>Apply etchant according to manufacturer's guidelines. Blot dry etched surfaces.</p> <p>Mix equal drops of Integrabond and Auto-Cure Activator and place on prepared tooth.</p> <p>Allow Integrabond to sit for 15 secs, then remove residual solvents with a blast of air. Repeat application 2-3 more times. It is not necessary to wait 15 secs between additional applications, however, solvent evaporation is necessary between applications.</p> <p>Light cure for 20 secs after final application of bonding agent.</p> <p>Place intraoral tip into the base of the preparation and dispense an adequate amount of core material to complete build up. Let material rise around the tip while withdrawing to eliminate bubbles.</p> <p>Do not disturb CompCore AF during the gelation stage.</p> <p>Light cure for 40 secs.</p> <p>Chemical-cure intraoral set time is approximately 4.5 minutes from start of mix/application.</p>
Midwestern	<p>Do you teach the use of bulk fill composite resin pre-clinically? No</p> <p>Do you use bulk fill composite resin clinically? No</p> <p>Which material(s) do you use? Total etch technique using a 5th generation bonding system and nanofill composite</p> <p>What is your preferred technique for use? Incremental placement and curing using a sectional matrix or tofflemire for class II restorations</p> <p>What evidence do you have to support your use/non-use?</p> <p>Although not research evidence, required textbooks Sturdevant and Summit describe incremental placement of composite. This technique is used to be consistent with required / recommended textbooks.</p>
Ohio State	NO
Pittsburg	<p>Do you teach the use of bulk fill composite resin pre-clinically? Yes</p> <p>Do you use bulk fill composite resin clinically? Yes</p> <p>Which material(s) do you use? Surefil SDR</p> <p>What is your preferred technique for use? The students are taught in the pre-clinical composite course to place Surefil SDR as the first layer in the proximal box. This layer should remain gingival to the contact area and be covered with a nanocomposite.</p> <p>What evidence do you have to support your use/non-use? Studies have shown that a common problem with secondary decay occurs at the gingival portion of the proximal box for composite restorations. Composite restorations accumulate plaque more readily than amalgam restorations especially in the proximal box area. Therefore, techniques to ensure that there are no open margins in this area are important. Besides the use of Surefil SDR in the proximal box, students are also told in lecture about the sandwich technique. This sandwich technique involves the use of resin modified glass ionomer. In this technique a resin modified class ionomer is placed in the first layer of the proximal box gingival to the contact area.</p>
UIC	<p>Do you teach the use of bulk fill composite resin pre-clinically? No we do not teach IT. It is not part of our restorative department philosophy at UIC College of Dentistry.</p>

	<p>Do you use bulk fill composite resin clinically? No</p> <p>Which material(s) do you use? We use for both preclinical and clinical activities, RENAMEL nanofill and microfill composite from Cosmedent.</p> <p>What is your preferred technique for use? Incremental layering technique.</p> <p>What evidence do you have to support your use/non-use? Extensive literature review and handling characteristics by students and faculty.</p>
West Virginia	<p>Do you teach the use of bulk fill composite resin pre-clinically? Yes</p> <p>Do you use bulk fill composite resin clinically? Yes</p> <p>Which material(s) do you use? Tetric Bulk fill</p> <p>What is your preferred technique for use? Follow manufacturers directions</p> <p>What evidence do you have to support your use/non-use? (Documentation attached.)</p>
Western Ontario	NO

XI. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
- ii. Are students evaluated (graded) on their daily clinical procedures?
 1. If so, what metrics or methods are used?
- iii. Provide Rubrics if available.

Buffalo

Clinical Evaluation:
This is changing at the moment. The clinical evaluation system has been ‘excellent’, ‘standard’ and ‘unacceptable’. Students have to self-evaluate their clinical performance before the faculty evaluation is put in the computer. There are discussions to change the grading of CPUs (clinical performance units) to Pass/Fail.
Pre-clinical skill evaluation:
The final course grade will be a combination of 3 practical examinations, formative laboratory projects completed during the course of the semester, time management/professionalism and self-assessment.
Student self-assessment/faculty matching: For each practical exam, matching points may be awarded or deducted based on an extra-scoring grid as extra credit. Additional points (RD, positioning and self-evaluation) DO NOT apply if the student has received a single score of “U” or a failing grade.
Final grades will be based on the following scale:
A=90-100 % B=80-89 % C=70-79 % F< 70 %

Grading Criteria*	Evaluation Types*	% Weight
Pre-clinical skill evaluation	Pre-clinical practical exams (3)	90%
Daily evaluation	Faculty qualitative evaluation	8%
Professionalism	Faculty qualitative evaluation	2%
*Evaluation Types (see Appendix 2 on the intranet for full descriptions)		100%

Pre-clinical daily evaluation: These formative laboratory exercises are designed to allow the student to interact with faculty while gaining the skill and understanding of the subject matter. All laboratory projects must fulfill the criteria of Excellent or Standard in order to be signed off as completed. A percentage of the course grade will be assigned to the daily projects completed during the course of the semester. Sign off sheets must be turned in by the designated deadline in order to receive credit. The student will receive credit provided that all class projects have been signed off as completed and the sign off sheet has been received by the deadline.

i. Are students evaluated (graded) on their daily clinical procedures?

1. If so, what metrics or methods are used?

This is changing at the moment. The daily grading has been for feedback purposes, and not for an individual procedure grade. What counts towards the clinic semester grade is the number of procedures (CPUs) completed.

	<p>2. Provide Rubrics if available. Following is an example of an amalgam rubric used in pre-clinical course: see Attached document</p>
Detroit Mercy	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? CPU's and challenges (Competency)</p> <p>Are students evaluated (graded) on their daily clinical procedures? Yes!</p> <p>If so, what metrics or methods are used? Daily evaluation forms</p> <p>Provide Rubrics if available. See the attachment</p>
Indiana	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?</p> <p>Pre-clinical: We have a traditional grading scale. 70 is the minimum grade allowed and anything below that point is considered unsatisfactory. This may change in the future and has been discussed at length. Students pre-clinically take exam soft tests to measure didactic knowledge. In the lab, they take practicals in most of the pre-clinical courses to assess capabilities. In gnathology, however, the course is project driven. If students do not perform in labs to the satisfactory level of 70% or above, that student will need to remediate within the course if they are in the range of 65%-69%. If they are lower than a 65% or do not remediate successfully, they are sent to the progress committee and a determination is made to repeat the year or dismiss the student.</p> <p>Clinical: Students are graded via a formative assessment method rather than a summative one. As such, they still need to have "met expectations" for the day for most criteria. This assessment form can be tracked by their clinic director to determine if they are continually having difficulties and not meeting expectations. At that point, a remediation can be designed for the student. However, they do have the hard and fast cut off and grades of competencies. On competencies, they are given a summative grade. Their summative grade from the competencies goes into their final clinical grade. Completion of certain set points (specific number of operative procedures, etc) and attendance is also factored into the clinical grade each semester. Again, if they cannot perform to the expected level on these parameters, they can go before the progress committee and be deemed as "failure to progress" if woefully behind the class.</p> <p>Are students evaluated (graded) on their daily clinical procedures? If so, what metrics or methods are used.</p> <p>They are not graded in a summative fashion, with the exception of competencies. They, instead, are given feedback using a formative assessment method. In this method, at the completion of a procedure in axiUm, a set of criteria specific to that procedure will pop up. A mandatory question of infection control is given and must be answered for QI measures. However, the remainder is a grading by exception method. This means that if criteria are left blank, the student has met expectations for the day. If the student has exceeded expectations or not met expectations, that can be</p>

	recorded for the specific criteria to which it is applicable. That gives written documentation of where a student is either doing well or, conversely, deficient in comparison with the rest of the class.
Michigan	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?</p> <p>Overall:</p> <p>Preclinical – written exams, attendance and participation (some courses), class assignments and projects (some courses) and practical exams (formative and summative – some courses)</p> <p>Clinical – clinical test cases, clinical CEU production, case completions, satisfactory performance evaluations on rotations and patient management. Specific restorative test cases are assigned for each semester. Students may take their test cases at any point in the semester when they have an appropriate patient. Test case evaluations are done by 2 faculty and grades entered in eClas, a separate computer program from Axiom, so that test case grades are not linked to the electronic health record. Faculty cannot grade test cases until students submit their own self-evaluation.</p> <p>Cut offs for passing exams or test cases vary but generally 70% is the minimum passing grade for courses.</p> <p>Attached as Appendix I – Policies for Academic Performance and Promotion.</p> <p>For individual restorative practical exams and clinical test cases, we recently revised our evaluation sheets so that they use the same wording in both preclinic and clinic. Preparations and Restorations are graded based on four criteria for each.</p> <p>Preparations are graded on Finish of Walls/Margins, Retention Form, External Outline Form and Internal Outline Form.</p> <p>Restorations are graded on Surface Finish, Margin Integrity, Anatomy and Occlusion, and Proximal Contact and Contour.</p> <p>Each area is graded as R, S, T or V. R is clinically ideal. S is clinically acceptable. T is clinically unacceptable but requiring adjustment. V is clinically unacceptable that requires major modification or repeating the procedure. Point values for each category are assigned based on the procedure and the importance of the category. In general, any V or 2 T's would result in automatic failure of that exam. Attached as Appendix II – RSTV Criteria for Cavity Preparations</p> <p>Are students evaluated (graded) on their daily clinical procedures? No. They are provided verbal feedback only. Years ago, daily evaluations were given in clinic but due to inflation by many faculty and unwillingness to give unsatisfactory evaluations, it was deemed a waste of time and effort.</p>
Midwestern	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?</p> <p>4 week evaluations of all students. Evaluation is on a combination of student progress or deficiencies, number of procedures, and professionalism. If there are deficiencies a 7th week review takes place</p> <p>Are students evaluated (graded) on their daily clinical procedures? Yes - but only satisfactory / unsatisfactory. No other grade levels or point scale</p> <p>If so, what metrics or methods are used? Students are satisfactory or unsatisfactory</p> <p>Provide Rubrics if available.</p> <p>See separate document : MWU - Illinois Clinic Grades</p>
Ohio State	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? Attached are preclinical grading metrics for operative procedures. Grades are on a 4 point scale with 2.0 being the minimum for passing.</p> <p>Are students evaluated (graded) on their daily clinical procedures? Yes.</p> <p>If so, what metrics or methods are used? Cumulative points given for different procedures, Daily Clinical grades, and time utilization are recorded and used to calculate a semester grade. Grades are on a 4 point scale with 2.0 being the minimum for passing.</p>
Pittsburg	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? There are three pre-clinical courses pertaining to restorative dentistry. All of these courses have different rubrics. In my course which is a pre-clinical composite course, I pattern the rubric after the CDCA grading rubric. All course are graded so that below a 70% is a failure. A rubric for the clinical restorative daily grades is provided.</p> <p>Are students evaluated (graded) on their daily clinical procedures? Yes</p>

	<p>If so, what metrics or methods are used? Grades are placed in Blackboard which also contains the rubric for the student’s daily restorative clinic grade. No pre-clinical rubrics are found in Blackboard. There is no linkage of Blackboard grades to the patient’s name or any information present in axiUm.</p> <p>Provide Rubrics if available. Attached</p>																							
UIC	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? All course at UIC College of Dentistry must have the four following assessment components:</p> <ul style="list-style-type: none">• Faculty Observation: Instructors will provide daily comments for each treatment session. The student will do a self- assessment utilizing an identical form and criteria. After both have completed their evaluations, both forms can be retrieved and reflection and discussion can occur.• Varied Experiences (practice in high fidelity context)• Independent Efforts (exams, portfolios, case presentations, and other activities)• Student Self-Evaluation (self-generated feedback on personal performance) <p>Are students evaluated (graded) on their daily clinical procedures?</p> <p>In pre-patient care, Students receive a “daily instructor grade” ranging from 0-2 points following each session. These grades are totaled at the end of each semester and generally contribute about 5% to the total grade for each course component. The student first completes a self-assessment of his/her performance and then the instructor evaluates and provides feedback. The grades is an assessment of preparation prior to the session, promptness and organization for beginning the session, effort during the session, progress towards skill development, and outcome.</p> <p>In clinic, Students are not evaluated on a daily basis but they are given daily feedback by formative assessment via Axiom. At the end of the semester evaluation takes place as a summative assessment through performance exams and an evaluation rubric that is filled out by students and all faculty that had contact with the student.</p> <p>If so, what metrics or methods are used?</p> <p>Provide Rubrics if available.</p> <p>re-patient Care: All performance exams have a performance component and a self-assessment component. Weighting changes as skill increases.</p> <p>Example of a performance exam criteria sheet:</p> <p>atient Care:</p> <table><tr><th>D3/AS4 Weight Factors for Various Course Components and Subcomponents</th><th>Component Weight</th></tr><tr><td>Faculty Observation</td><td>30%</td></tr><tr><td>Varied Experiences<ul style="list-style-type: none">- Relative Value Unit RVUs (25%)-Patient & Practice Management (5%)</td><td>30%</td></tr><tr><td>Weighted Independent Efforts<ul style="list-style-type: none">-Written Exam One (4%)- Written Exam Two (4%)- Written Exam Three (4%)- Written Exam Four (4%)-Mock Boards-CDCA Typodont Exam #’ 3,5,9 (10%)-Mock Boards-CDCA Typodont Endo RCT #8 and Access #14 (10%)-Periodontal Re-Evaluation Portfolio (Due date 11/28/16) (4%)</td><td>40%</td></tr></table> <table><tr><th>Grade</th><th>A (RVUs)</th><th>B (RVUs)</th><th>C (RVUs)</th><th>F(RVUs)</th></tr><tr><td>Fall 2016 D3 and AS4</td><td>675 AND ABOVE</td><td>674-574</td><td>573-473</td><td>472 AND BELOW</td></tr><tr><td>AS3</td><td>400 AND ABOVE</td><td>399-348</td><td>347-280</td><td>279 AND BELOW</td></tr></table>	D3/AS4 Weight Factors for Various Course Components and Subcomponents	Component Weight	Faculty Observation	30%	Varied Experiences <ul style="list-style-type: none">- Relative Value Unit RVUs (25%)-Patient & Practice Management (5%)	30%	Weighted Independent Efforts <ul style="list-style-type: none">-Written Exam One (4%)- Written Exam Two (4%)- Written Exam Three (4%)- Written Exam Four (4%)-Mock Boards-CDCA Typodont Exam #’ 3,5,9 (10%)-Mock Boards-CDCA Typodont Endo RCT #8 and Access #14 (10%)-Periodontal Re-Evaluation Portfolio (Due date 11/28/16) (4%)	40%	Grade	A (RVUs)	B (RVUs)	C (RVUs)	F(RVUs)	Fall 2016 D3 and AS4	675 AND ABOVE	674-574	573-473	472 AND BELOW	AS3	400 AND ABOVE	399-348	347-280	279 AND BELOW
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AS3	400 AND ABOVE	399-348	347-280	279 AND BELOW																				
West Virginia	not submitted																							
Western Ontario	<p>What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? Pre-clinical – using long-term established evaluation criteria Clinical Evaluation forms</p> <p>Are students evaluated (graded) on their daily clinical procedures? Yes</p>																							

If so, what metrics or methods are used? Scale from 1 to 4

XII. Administration

a. **Organizational Structure**

- i. What is the name of the major decision making body within your school?
 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

Buffalo	<p>What is the name of the major decision making body within your school?</p> <p>The Executive Council. Who sits on this Council? A combination of the deans, chairs and Executive Council. How many Deans, Chairs, do you have?</p> <p><u>List of Deans:</u></p> <p>Dean of School of Dental Medicine, Associate Dean for Research, Associate Dean for Student Affairs/Community and Professional Initiatives, Associate Dean for Academic Affairs, Associate Dean for Administration (Interim), Assistant Dean for Clinical Affairs</p> <p><u>List of Chairs:</u></p> <p>Chair of the Department of Oral Biology Chair of the Department of Oral Diagnostic Sciences Chair of the Department of Oral Maxillofacial Surgery Chair of the Department of Orthodontics Chair of the Department of Pediatrics and Community Dentistry (Interim) Chair of the Department of Periodontics/Endodontics Chair of the Department of Restorative Dentistry</p>
Detroit Mercy	<p>What is the name of the major decision making body within your school? Dean</p> <p>Who sits on this Council, Committee, Board?</p> <p>Leadership team: Dean and Asst Dean</p> <p>Adm Planning gr. Leadership team+</p> <p>Faculty assembly and chairs</p> <p>How many Deans, Chairs, (Dept Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>1 Dean 5 Asst Dean, 10 dept chairs and 1 Program director</p> <p>Provide school organizational tree if available. Provide it through DANA</p>
Indiana	<p>What is the name of the major decision making body within your school?</p> <p>For major organizational issues – the Dean has final authority For faculty issues & day-to-day operations – Executive Associate Dean For matters involving students & clinic operations – Associate Dean for Academic & Clinical Affairs (with assistance from two Assistant Deans) For matters involving academics/teaching – IUSD Faculty Council. All faculty members are voting members of Faculty Council. Almost all members serve on at least one committee (Curriculum, Progress, Appeals, Awards, etc).</p> <p>Who sits on this Council, Committee, Board? Listed above.</p> <p>How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>Dean – 1 Associate Deans – 6</p>

	<p>Assistant Deans – 4+</p> <p>Department Heads – 10</p> <p>Division Directors/Section Heads/Clinic Directors – 15+</p>
Michigan	<p>What is the name of the major decision making body within your school? Dental Executive Committee</p> <p>Who sits on this Council, Committee, Board?</p> <p>Executive Committee consists of 6 members (plus the Dean) of the governing faculty elected by the governing faculty and appointed by the Board of Regents. Membership shall consist of no less than one-half of the membership being professorial (instructional) track faculty. Eligible faculty include tenured professorial staff or associate and full professors of the clinical instructional track. Term – 3 years.</p> <p>Other numerous subcommittees, such as Bylaws Committee, Curriculum Committee, Academic Review Board.</p> <p>How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>5 Department Chairs:</p> <p>BMS – Biologic and Materials Sciences</p> <p>CRSE – Cariology, Restorative Sciences and Endodontics</p> <p>OMS/HD – Oral Maxillofacial Surgery and Hospital Dentistry</p> <p>OPD – Orthodontic and Pediatric Dentistry</p> <p>POM – Periodontics and Oral Medicine</p> <p>7 Deans:</p> <p>Dean, School of Dentistry</p> <p>Senior Associate Dean/Associate Dean for Patient Services</p> <p>Associate Dean for Faculty Affairs and Institutional Effectiveness</p> <p>Associate Dean for Academic Affairs</p> <p>Associate Dean for Research</p> <p>Assistant Dean for Student Services</p> <p>Assistant Dean for Community-Based Dental Education</p> <p>Directors:</p> <p>Executive Director of Alumni Relations and Development</p> <p>Director of Budget & Financial Planning</p> <p>Director of Clinical Research</p> <p>Director of Communications</p> <p>Director of Community Dental Center</p> <p>Director of Dental Faculty Associates</p> <p>Director of Dental Hygiene Program</p> <p>Director of Diversity and Inclusion</p> <p>Director of Global Oral Health Initiatives</p> <p>Director of Human Resources</p> <p>Director of Oral Health Sciences PhD Program</p> <p>Director of Pathways Program and Curriculum and Assessment Integration</p> <p>Director of Predoctoral Clinical Education</p> <p>Director of Vertically Integrated Clinics (4 clinic directors – 4 separate clinics)</p>
Midwestern	<p>What is the name of the major decision making body within your school?</p> <p>Who sits on this Council, Committee, Board?</p> <p>The Dean</p> <p>How many Deans, Chairs, (Dept Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>4 dean positions: the Dean, Associate Dean for Academic Affairs, Associate Dean for Pre Clinical Education, Associate Dean for Clinical Education, Clinical Program Director.</p> <p>No section heads or department chairs</p> <p>Provide school organizational tree if available.</p> <p>Midwestern University – Illinois organizational tree</p>

Ohio State	<p>What is the name of the major decision making body within your school? Dean's Executive Council</p> <p>Who sits on this Council, Committee, Board? Dean's staff, Assistant & Associate Deans, Department Chairs.</p> <p>How many Deans, Chairs, (Dept Heads, Section Heads, Program Directors, etc...) do you have? 18</p>
Pittsburg	<p>What is the name of the major decision making body within your school?</p> <p>Who sits on this Council, Committee, Board? Dean's Council. Department Chairs and Associate Deans</p> <p>How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? Nine Deans, Eleven Departmental Chairs</p> <p>Provide school organizational tree if available. See attachment</p>
UIC	<p>What is the name of the major decision making body within your school?</p> <p>The major decision body at the College of Dentistry is the general faculty body. Proposals brought to the faculty are usually discussed and approved by the Executive Committee (EC) which is chaired by the Dean and composed of elected faculty members. There are then several subcommittees of the EC which refine ideas, work on concerns, develop concepts and provide the discussion points for possible changes.</p> <p>Who sits on this Council, Committee, Board? Executive Committee is chaired by the Dean and consists of seven elected faculty members, limited by no more than two per Department and two Department Heads.</p> <p>How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>One executive Dean, seven Deans (Associate Dean for Academic Affairs, Clinical Affairs, Student and Diversity Affairs, Research, Prevention and Public Health Sciences, Advancement and Finance and Administration) and eight Department Heads. One Program Director for each of our Post Graduate programs- Pediatric Dentistry, Prosthodontics, Periodontics, Oral and Maxillofacial Surgery, Orthodontics, and Endodontics.</p> <p>Provide school organizational tree if available. See attachment</p>
West Virginia	<p>What is the name of the major decision making body within your school?</p> <p>Who sits on this Council, Committee, Board? Dean, Assoc Deans, Chairs, etc. for school. The Dental Corporation/ practices has an elected board.</p> <p>How many Deans, Chairs, (Dept Heads, Section Heads, Program Directors, etc...) do you have?</p>
Western Ontario	<p>What is the name of the major decision making body within your school?</p> <p>Director's Advisory Committee</p> <p>Who sits on this Council, Committee, Board?</p> <p>Director, CEO, Director of Clinics, Director of Research, Director of Pos-Grad Programs, Chair of Restorative dentistry, and Financial CEO</p> <p>How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?</p> <p>01 Vice Dean of Medicine & Dentistry and Director of dentistry</p> <p>04 Associate Directors of Academics, Clinics, Research, and Pos-Grad Programs</p> <p>03 Chairs of Restorative Dentistry, Oral Biology, Oral surgery</p>

XIII. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?
 1. ex...the use of patient photos on Facebook
 2. If so, provide examples.

ii. How do you inform the students of their professional responsibilities?

iii. What specific rules/guidelines do you have in place?

Buffalo	<p>Have you had any student conduct issues related to the improper use of Social Media? NO</p> <p>How do you inform the students of their professional responsibilities? Via Student Handbook, orientation lectures, courses on ethics, introduction into the profession seminars</p>
Detroit Mercy	<p>Have you had any student conduct issues related to the improper use of Social Media? Yes, Students sharing photos from clinics</p> <p>ex...the use of patient photos on Facebook</p> <p>If so, provide examples.</p> <p>How do you inform the students of their professional responsibilities? Orientation, syllabus clinic orientations and academic policy handbook</p> <p>What specific rules/guidelines do you have in place? University social media policy</p>
Indiana	<p>Have you had any student conduct issues related to the improper use of social media? Ex...the use of patient photos on facebook Not to our knowledge. In fact, the students website page for their class is monitored by the class leadership who holds everyone to a high standard. The class president even had students to delete the pictures of them working in stab lab or rubber dam day just to make sure privacy is not compromised in any way. I have personally seen this be more of an issue with past students who have graduated. Some have posted cases or photos that shouldn't be posted. Not the forum for such things.</p> <p>How do you inform the students of their professional responsibilities? The students have an ethics and professionalism course they take as soon as they start dental school. It is discussed within this course. In their second year, they take another ethics course where two professors give presentations on this topic. They cover ethical, behavioral, and professional issues relative to this topic. They are also given a case in which they must address a social media policy for a dental practice. The assignment is collected and graded. Additionally, they cover definitions of social media, its role in general use, how it is used in healthcare, how it is viewed by possible patients and providers, and the ethical and professional concerns in the standardization of policies and procedures of its use. The students are also given a series of recent papers about healthcare and social media that they must review.</p> <p>What specific rules/guidelines do you have in place? I'm not aware of any hard and fast rules in place. It is mentioned very superficially in the handbook.</p>
Michigan	<p>Have you had any student conduct issues related to the improper use of Social Media? Not to our knowledge</p> <p>How do you inform the students of their professional responsibilities?</p> <p>Discussed at Orientation</p> <p>Discussed in D1 ethics course- Introduction to the Profession</p> <p>Social Media Guidelines posted on MiTools on School of Dentistry website (document attached at Appendix III)</p> <p>What specific rules/guidelines do you have in place?</p> <p>See Appendix III – Social Media Guidelines</p>
Midwestern	<p>Have you had any student conduct issues related to the improper use of Social Media? None that any one is aware of</p> <p>ex...the use of patient photos on Facebook If so, provide examples.</p> <p>How do you inform the students of their professional responsibilities? Policies in the clinic manual, HIPAA training, ethics and professionalism content in courses</p> <p>What specific rules/guidelines do you have in place? Midwestern CDMI Professionalism Plan outlines professionalism for students</p>
Ohio State	<p>Have you had any student conduct issues related to the improper use of Social Media? Not within the past year.</p> <p>ex...the use of patient photos on Facebook</p> <p>If so, provide examples.</p> <p>How do you inform the students of their professional responsibilities? Ethics and Professionalism course and lectures in other courses.</p>

	<p>What specific rules/guidelines do you have in place? We have a Book of Student Conduct which is on line and available to all students and faculty.</p>
Pittsburg	<p>Have you had any student conduct issues related to the improper use of Social Media? Not to my knowledge</p> <p>ex...the use of patient photos on Facebook</p> <p>If so, provide examples.</p> <p>How do you inform the students of their professional responsibilities? Information is included in a professional ethics course.</p> <p>What specific rules/guidelines do you have in place? Do not give your cell phone numbers or any other personal information to your patients. Do not contact your patients in any way that will enable them retrieve your personal information.</p>
UIC	<p>Have you had any student conduct issues related to the improper use of Social Media?</p> <p>We had minor incidents related to students posting unprofessional photos in Facebook. Our Director of Marketing at University of Illinois at Chicago frequently evaluates our Facebook page and addresses any improper or unprofessional postings that can either compromise patients' confidentiality (HIPAA). Also there have been instances in which patients post pictures receiving treatment at UIC clinics. If this picture discloses another patient, the student contacts the patient to remove the picture. Our Director of Marketing is always searching for any violations of our college and university policies.</p> <p>How do you inform the students of their professional responsibilities?</p> <p>We inform the students during their orientation sessions at the beginning of the DMD and Advanced Standing DMD program. Also, we send monthly reminders to students and residents. Our policies are also accessible via school intranet and in our clinic manuals.</p> <p>There is a first year ethics course that presents a variety of cases regarding issues with social media and ethics, that are discussed by our students as a team.</p> <p>What specific rules/guidelines do you have in place?</p> <p>There are policies and guidelines at the University level and also at the college level. The college policies were recently created but they are also contemplated under the student's code of conduct.</p>
West Virginia	<p>Have you had any student conduct issues related to the improper use of Social Media? Yes, limited instances of inappropriate media postings.</p> <p>ex...the use of patient photos on Facebook</p> <p>If so, provide examples. One instance of a picture, others were inappropriate dialogue.</p> <p>How do you inform the students of their professional responsibilities? There is an ethics class, as well as rules guidelines in the student handbook. They also are lectured about this/ directed/ warned in many of their courses.</p> <p>What specific rules/guidelines do you have in place? Inappropriate postings may result in sanctions including dismissal.</p>
Western Ontario	<p>NO</p>

Attachments
for the
CODE 2016 National Agenda

Buffalo

Provide Rubrics if available. *Following is an example of an amalgam rubric used in pre-clinical course:*

Class II Amalgam Preparation Evaluation Form

Criteria	Excellent (E)	Standard (S)	Unacceptable (U)	Evaluation								
External Outline												
Occlusal	pits & grooves included, centered 1.0 – 1.25 mm wide B-L	slightly over or under extended slightly wide or narrow	grossly over or under extended ≥2.5 mm wide	<table><tr><td>Student</td><td>E</td><td>S</td><td>U</td></tr><tr><td>Faculty</td><td>E</td><td>S</td><td>U</td></tr></table>	Student	E	S	U	Faculty	E	S	U
Student	E	S	U									
Faculty	E	S	U									
Proximal box (B, L)	visually free of contact (0.25-0.5 mm)	slightly over or underextended	≥1 mm beyond contact, or in contact									
Internal Form (Occlusal)												
B & L walls	parallel or slightly convergent occlusally	slightly divergent or undercut	gross divergence (total lack of resistance & retention form)									
M or D wall (if present)	slightly divergent or vertical	slightly undercut or too divergent		<table><tr><td>Student</td><td>E</td><td>S</td><td>U</td></tr><tr><td>Faculty</td><td>E</td><td>S</td><td>U</td></tr></table>	Student	E	S	U	Faculty	E	S	U
Student	E	S	U									
Faculty	E	S	U									
Pulpal wall	1.5 – 2 mm deep, horizontal	slightly shallow (1.25–1.5 mm), deep (2–2.5 mm), angled	<1 mm or > 2.5 mm deep									
Internal Form (Proximal)												
B & L walls	parallel or slightly convergent occlusally 90° to proximal	slightly divergent or undercut. Not 90°	grossly divergent or grossly convergent. Not 90°									
Axial wall	parallel to long axis, convex B-L. 1-1.25 mm M-D depth, min. 1 mm O-G height	not parallel, undercut, flat, slightly shallow or deep M-D, slightly <1 mm O-G height	< 1 mm or > 2mm deep M-D axial wall not present, or >2 mm O-G height									
Gingival wall	horizontal	slightly angled		<table><tr><td>Student</td><td>E</td><td>S</td><td>U</td></tr><tr><td>Faculty</td><td>E</td><td>S</td><td>U</td></tr></table>	Student	E	S	U	Faculty	E	S	U
Student	E	S	U									
Faculty	E	S	U									
Retention	in dentin, 1 mm from proximal cavosurface	slightly deep, shallow, wide or misplaced	absent or entirely into axial									
Finish												
Margins	smooth, regular	slightly rough, irregular	grossly rough	<table><tr><td>Student</td><td>E</td><td>S</td><td>U</td></tr><tr><td>Faculty</td><td>E</td><td>S</td><td>U</td></tr></table>	Student	E	S	U	Faculty	E	S	U
Student	E	S	U									
Faculty	E	S	U									
Walls & line angles	smooth & flat, well defined, pulpo-axial beveled	slightly rough, curved, line angles lack definition, pulpo-axial sharp	grossly rough, sharp, ill-defined									
Adjacent tooth	undamaged	slightly damaged	grossly damaged	<table><tr><td>Student</td><td>E</td><td>S</td><td>U</td></tr><tr><td>Faculty</td><td>E</td><td>S</td><td>U</td></tr></table>	Student	E	S	U	Faculty	E	S	U
Student	E	S	U									
Faculty	E	S	U									

Class II Amalgam Restoration Evaluation Form

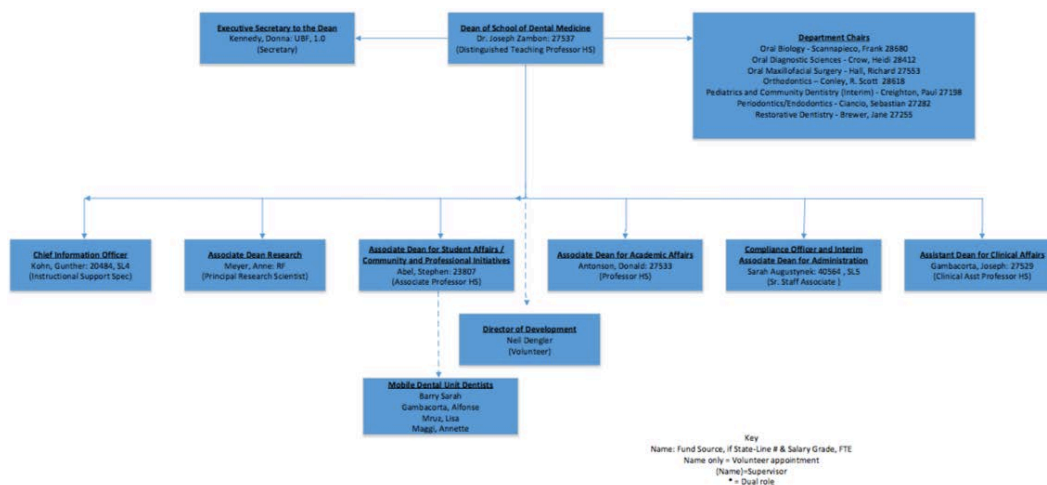
Criteria(Grade)	Excellent (E)	Satisfactory (S)	Unacceptable (U)	Evaluation			
Margin integrity & Surface finish	no excess or deficiency visually or with explorer	slight excess or deficiency	gross excess or deficiency, severe overhang, open margins				
Surface finish	smooth, free of scratches, pits, irregularities	slight rough, scratches pits, irregularities	grossly rough voids	Student <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Tooth structure	no recontouring or damage	slight recontouring or damage	gross removal of tooth structure	Faculty <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Occlusal anatomy	proper location, depth, width. Well defined	incorrect location, depth, width. Lack definition	anatomical features are absent				
Grooves							
Fossae	normal depth, width, position	slightly shallow, deep wide, misplaced	grossly deep fossae	Student <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Cuspal planes	reproduce remaining cuspal inclines	slightly under or over contoured	grossly miscarved cuspal planes	Faculty <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Contact & proximal contour	visual contact, correct width, position	slightly wide, narrow incorrect position	visually open contact, grossly misplaced contact				
Contact							
Embrasures	the four embrasures have normal contour	slightly closed or too open	grossly closed or open	Student <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Prox. contour	convex, continuous with tooth contour	slightly flat, does not follow tooth contour	concave or grossly inconsistent with tooth contour	Faculty <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
Marginal ridge	proper height, width, contour	slightly high, low, wide, narrow					
Occlusion	correct occlusion	slightly high in occlusion	grossly high in occlusion	Student <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					
				Faculty <table border="1"><tr><td>E</td><td>S</td><td>U</td></tr></table>	E	S	U
E	S	U					

Rubber Dam Isolation		Positioning / Infection Control	
Seal (clamp/tears)		Operator	Student +1 -1
Inversion	Student +1 -1	Patient	
Frame position	Faculty +1 -1	Mirror / Instrument	Faculty +1 -1
Clamp stability		Infection control / PPE	
Floss ligatures			

Cariology and Direct Restoration Pre-Clinical Lab II RDN 812

Updated 09/07/2016

School Organizational Tree:



Buffalo Student Guidelines:

UB STUDENT GUIDELINES

General

All students at the University at Buffalo are expected to abide by the Student Conduct Rules, University Standards & Administrative Regulations approved by the Council of the State University of New York at Buffalo. This document may be accessed from the University Office of Student Affairs website: <http://www.student-affairs.buffalo.edu/judicial/rulereg.php>.

All students are expected to conduct themselves in a conscientious manner in accordance with the ethical standards generally recognized within the academic community, as well as within the dental profession. The dental student is obligated by the responsibility of service to the patient, to the profession and to his or her own personal standards of integrity to become qualified to administer conscientiously to the problems and needs of patients. With this responsibility in mind, students are expected to:

- conduct all academic work within the letter and spirit of the School of Dental Medicine Honor System (Appendix G);
- attend all scheduled classes, laboratory sessions, clinical assignments (including rotations) and examinations;
- respect the dignity of each faculty and staff member individually and all faculty and staff collectively in classrooms, laboratories, clinics, and other academic settings.
- conduct themselves in a professional manner when treating patients, such conduct to include: making conscientious arrangements of appointments for diagnosis and treatment; obtaining appropriate informed consent, using forms provided by the School of Dental Medicine; obtaining appropriate consultations with faculty; and completing all patient treatment in a timely manner.

- comply with all laws and regulations applicable to the care of patients both federal and state, e.g., Health Insurance
- Portability and Accountability Act and Infection Control Guidelines.

Commission on Dental Accreditation Complaint Procedures

The Commission on Dental Accreditation will review complaints that relate to a program's compliance with accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs but does not intervene on behalf of individuals or act as a court of appeal for individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students.

A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611-2678 or by calling 1-800-621-8099 extension 4653.

Distractions in the Classroom: Behavioral Expectations

The university has set forth minimum expectations for classroom behavior for all students, which include:

- Attending classes and paying attention. Do not ask an instructor in class to go over material you missed by skipping a class or not concentrating.
- Not coming to class late or leaving early. If you must enter a class late, do so quietly and do not disrupt the class by walking between the class and the instructor. Do not leave class unless it is an absolute necessity.
- Not talking with other classmates while the instructor or another student is speaking. If you have a question or a comment, please raise your hand, rather than starting a conversation about it with your neighbor.
- Showing respect and concern for others by not monopolizing class discussion. Allow others time to give their input and ask questions. Do not stray from the topic of class discussion.
- Not eating and drinking during class time.
- Turning off the electronics: cell phones, pagers, and beepers.
- Avoiding audible and visible signs of restlessness.

Focusing on class material during class time. Sleeping, talking to others, doing work for another class, reading the newspaper, checking email, and exploring the internet are unacceptable and can be disruptive.

Not packing book bags or backpacks to leave until the instructor has dismissed class.

Professional Conduct

Professional conduct is expected of all students. Students are expected to consistently demonstrate concern and respect for patients, peers, and others. Willful harassment, abuse or intimidation of a patient, staff member, faculty member, or fellow student is grounds for administrative probation, suspension or dismissal. The Judicial Council (DDS) and the Advanced Education Judicial Council (Advanced Education) of the School of Dental Medicine are the bodies responsible for hearing all cases involving violations of the School Honor System. For further information on Judicial Council proceedings, refer to Appendix H.

Sexual Harassment

Sexual harassment of employees and students, as defined below, is contrary to University and School policy and is a violation of federal and state laws and regulations.

Definitions. The University definition of sexual harassment is based on Equal Employment Opportunity Commission (EEOC) and Office of Civil Rights (OCR) regulations and is as follows:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when: (1) submission to or enduring such conduct when rejected is made either explicitly or implicitly a term or condition of instruction, employment or participation in other University activity, or (2) submission to, or rejection of, such conduct by an individual is used as a basis for evaluation in making academic or personnel decisions affecting an individual; or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's performance, or creating an intimidating, hostile, or offensive University environment.

For additional information, or to make a complaint or receive a copy of the University policy and procedures to be followed for sexual harassment complaints, please contact the Director of Student Services, 315 Squire (829-2839) or the Office of Equity, Diversity and Inclusion, 406 Capen (North Campus), 645-2266.

Academic Honesty

The University has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect for others' academic

endeavors. By placing their name on academic work, students certify the originality of all work not otherwise identified by appropriate acknowledgments.

Dishonesty of any kind with respect to examinations, course assignments, alteration of records, or illegal possession of examinations shall be considered unprofessional behavior subject to referral to the Judicial Council. Students have the responsibility not only to abstain from such unprofessional behavior, but also to avoid the appearance of such behavior and to guard against the possibility for others to act unprofessionally. Students who collaborate in unprofessional behavior are as guilty as the students whom they assist.

Plagiarism

Honesty requires that any ideas or materials taken from another for either written or oral use be fully acknowledged. Offering the work of someone else as one's own constitutes plagiarism, and is a form of unprofessional behavior. Language or ideas taken from others can range from isolated formulas, sentences or paragraphs to entire articles copied from books, periodicals, speeches, or the writings of others, including computer-based applications. The offering of materials assembled by others in the form of projects or collections, without acknowledgement, is also considered plagiarism. Students who fail to give credit for ideas or materials taken from others are guilty of plagiarism, and shall be referred to the appropriate Judicial Council.

Detroit Mercy

REMOVABLE PARTIAL DENTURE CHECKLIST

Student Name: _____

Student ID #: _____

Patient Name: _____

Chart #: _____

Date Started: _____

Date Completed: _____

☐ Definitive Maxillary

☐ Interim Maxillary

☐ Interim Immediate Maxillary

☐ Definitive Mandibular

☐ Interim Mandibular

☐ Interim Immediate Mandibular

Procedure	Date	Faculty Signature	Faculty ID
Oral Exam, Diagnostic Casts, and Pros. Consult			
Diagnostic Mounting in ICP			
Survey and RPD Design			
Custom Impression Tray <i>Approved 24hrs before clinical appointment</i>			
<i>If Surveyed Crown, Use Fixed Prosthodontics Checklist</i>			
Intraoral Preparations			
Border Molding and PVS Impression			
Master Cast Fabrication			
Laboratory Prescription – Framework Casting			
Framework Try-in			
Altered Cast Impression			
Altered Cast Fabrication			
Baseplate and Wax Rim <i>Approved 24hrs before clinical appointment</i>			
Maxillomandibular Registration			
Facebow Record			
Tooth and Shade Selection			
Tooth Set-Up <i>Approved 24hrs before clinical appointment</i>			
Final Try-in			
Final Delivery			
Post Op Appointment			

Key:	Clinical Procedure
	Laboratory Procedure

All Laboratory Steps Must Be Completed and Approved Prior to the Following Clinical Appointment

This form is to remain in the dental record until the treatment plan is completed. Return this form to the administrative assistant of the Restorative Department for CPU and Competency credit. Failure to obtain necessary signatures will result in loss of credit.

© University of Detroit Mercy, 2013

COMPLETE DENTURE CHECKLIST

Student Name: _____
 Patient Name: _____
 Date Started: _____

Student #: _____
 Chart #: _____
 Date Completed: _____

- | | | |
|--|---|---|
| <input type="checkbox"/> Definitive Maxillary | <input type="checkbox"/> Interim Maxillary | <input type="checkbox"/> Interim Immediate Maxillary |
| <input type="checkbox"/> Definitive Mandibular | <input type="checkbox"/> Interim Mandibular | <input type="checkbox"/> Interim Immediate Mandibular |

Procedure	Date	Faculty Signature	Faculty ID
Oral Exam, Diagnostic Casts, and Prosthodontics Consult			
Diagnosis & Treatment Plan			
Preprosthetic Surgery Yes <input type="checkbox"/> No <input type="checkbox"/>			
Surgical Guide <i>Approved 24hrs before clinical appointment</i>			
Custom Impression Tray <i>Approved 24hrs before clinical appointment</i>			
Border Molding			
Final Impression			
Master Cast			
Baseplates & Wax Rims <i>Approved 24hrs before clinical appointment</i>			
VDO, Centric Relation, and Facebow			
Denture Teeth Selection			
Anterior Tooth Set-Up <i>Approved 24hrs before clinical appointment</i>			
Anterior Try-in			
Posterior Tooth Set-Up <i>Approved 24hrs before clinical appointment</i>			
Posterior Try-in and Vibrating Line Recorded			
Posterior Palatal Seal			
Immediate Denture Tooth Set-Up <i>Remove first tooth from cast with Instructor</i>			
Surgical Guide (for immediate cases) <i>Approved 24hrs before clinical appointment</i>			
Laboratory Prescription – Denture Processing			
Clinical Remount and Denture Delivery			
Post Op. Appointment			

Key:	Clinical Procedure
	Laboratory Procedure

All Laboratory Steps Must Be Completed and Approved Prior to the Following Clinical Appointment

This form is to remain in the dental record until the treatment plan is completed. Return this form to the administrative assistant of the Restorative Department for CPU and Competency credit. Failure to obtain necessary signatures will result in loss of credit.

LABORATORY PRESCRIPTION EVALUATION

Student Name: _____ Student Number: _____

Evaluating Faculty: _____ Faculty Number: _____

Prosthesis Prescribed: _____ Date: _____

Criteria	Goal	CA	SNM	Comments
Laboratory, Patient, and Case Information				
Completion Date and Contact Information				
Type of Prosthesis				
Prosthesis-Specific Information				
Instructions and Comments				
Patient-Specific Information				
Critical Thinking				

Student self-evaluates by placing an "X". Faculty evaluate by circling.

Faculty Signature: _____

Comments will be given for each criterion that is not "Goal".

DAILY CLINICAL EVALUATION – COMPLETE DENTURE

Student Name: _____

Student ID #: _____

Patient Name: _____

Chart #: _____

Date: _____

Criterion	Description	Standard Met?	Comments
1. Critical Thinking	Demonstrates critical thinking, solves problems, makes sound decisions and applies knowledge appropriate to the procedure.	YES NO	
2. Professionalism	Applies ethical and legal standards, follows standards of care and clinic guidelines, practices within scope of abilities and accepts responsibility for actions.	YES NO	
3. Communication & Interpersonal Skills	Effectively communicates with patients, faculty, staff, and peers; demonstrates empathy, cultural sensitivity and good interpersonal skills.	YES NO	
4. Health Promotion	Promotes healthy concepts and behaviors and enables patients to increase control over and improve their health.	YES NO	
5. Practice Management & Informatics	Follows infection control, OSHA, and HIPAA guidelines, obtains informed consent and provides appropriate recordkeeping.	YES NO	
6. Patient Care & Clinical Skills	Assesses, diagnoses, plans, and manages the comprehensive care of the patient and demonstrates sound clinical skills at an appropriate level of independence.	YES NO	
Procedure Evaluation	Patient Presentation	YES NO	
	Custom Impression Trays	YES NO	
	Border Molding and Final PVS Impression	YES NO	
	Master Cast, Baseplates, and Wax Rims	YES NO	
	VDO, Centric Relation, and Facebow	YES NO	
	Denture Teeth Selection	YES NO	
	Anterior Try-in	YES NO	
	Posterior Try-in and Vibrating Line	YES NO	
	Denture Base Shade Selection	YES NO	
	Clinical Remount and Delivery	YES NO	
	Post Op Appointment	YES NO	
	Time Management	YES NO	

Student self-evaluates by placing an "X". Faculty evaluate by circling.

Faculty Name: _____

Faculty ID #: _____

Faculty Signature: _____

DAILY CLINICAL EVALUATION - REMOVABLE PARTIAL DENTURE

Student Name: _____

Student ID #: _____

Patient Name: _____

Chart #: _____

Date: _____

Criterion	Description	Standard Met?	Comments
1. Critical Thinking	Demonstrates critical thinking, solves problems, makes sound decisions and applies knowledge appropriate to the procedure.	YES NO	
2. Professionalism	Applies ethical and legal standards, follows standards of care and clinic guidelines, practices within scope of abilities and accepts responsibility for actions.	YES NO	
3. Communication & Interpersonal Skills	Effectively communicates with patients, faculty, staff, and peers; demonstrates empathy, cultural sensitivity and good interpersonal skills.	YES NO	
4. Health Promotion	Promotes healthy concepts and behaviors and enables patients to increase control over and improve their health.	YES NO	
5. Practice Management & Informatics	Follows infection control, OSHA, and HIPAA guidelines, obtains informed consent and provides appropriate recordkeeping.	YES NO	
6. Patient Care & Clinical Skills	Assesses, diagnoses, plans, and manages the comprehensive care of the patient and demonstrates sound clinical skills at an appropriate level of independence.	YES NO	
Procedure Evaluation	Patient Presentation and RPD Design	YES NO	
	Custom Impression Trays	YES NO	
	Intraoral Preparations	YES NO	
	PVS Impression	YES NO	
	Framework Try-in	YES NO	
	Altered Cast (if necessary)	YES NO	
	Maxillomandibular Registration	YES NO	
	Denture Teeth Selection	YES NO	
	Final Try-in	YES NO	
	Delivery	YES NO	
	Post Op Appointment	YES NO	
	Time Management	YES NO	

Student self-evaluates by placing an "X". Faculty evaluate by circling.

Faculty Name: _____

Faculty ID #: _____

Faculty Signature: _____

DAILY CLINICAL EVALUATION – INDIRECT RESTORATION

Student Name: _____

Student ID #: _____

Patient Name: _____

Chart #: _____

Preparation / Abutment #: _____

Date: _____

Criterion	Description	Standard Met?	Comments
1. Critical Thinking	Demonstrates critical thinking, solves problems, makes sound decisions and applies knowledge appropriate to the procedure.	YES NO	
2. Professionalism	Applies ethical and legal standards, follows standards of care and clinic guidelines, practices within scope of abilities and accepts responsibility for actions.	YES NO	
3. Communication & Interpersonal Skills	Effectively communicates with patients, faculty, staff, and peers; demonstrates empathy, cultural sensitivity and good interpersonal skills.	YES NO	
4. Health Promotion	Promotes healthy concepts and behaviors and enables patients to increase control over and improve their health.	YES NO	
5. Practice Management & Informatics	Follows infection control, OSHA, and HIPAA guidelines, obtains informed consent and provides appropriate recordkeeping.	YES NO	
6. Patient Care & Clinical Skills	Assesses, diagnoses, plans, and manages the comprehensive care of the patient and demonstrates sound clinical skills at an appropriate level of independence.	YES NO	
Procedure Evaluation	Patient Presentation	YES NO	
	Custom Impression Trays	YES NO	
	Finish Line Selection	YES NO	
	Shade Selection	YES NO	
	Preparation	YES NO	
	Provisional	YES NO	
	Tissue Management with Retraction	YES NO	
	PVS Impression	YES NO	
	Maxillomandibular Registration	YES NO	
	Provisional Cementation	YES NO	
	Try-in	YES NO	
	Restoration Adjustment	YES NO	
	Final Cementation	YES NO	
	Time Management	YES NO	

Student self-evaluates by placing an "X". Faculty evaluate by circling.

Faculty Name: _____

Faculty ID #: _____

Faculty Signature: _____

UDMSD Operative Evaluation

Name: _____ ID# _____ Date: _____ ☐DS2 ☐DS3 ☐DS4

☐amalgam ☐composite ☐glass ionomer ☐sedative filling ☐indirect ☐typodont

Patient #: _____ ADA procedure #: _____ Tooth #: _____ Surface(s): _____ Class: I II III IV V

Competency

Grade:

Prep	Prep SE	Rest	Rest SE
------	------------	------	------------

NOTE

One faculty initials for daily procedure
Two faculty initial for a competency examination

Initials

Initials

Evaluation: *Student underlines, Faculty circles*

ID#

ID#

Procedure	Excellent	Acceptable	Standard Not Met	Comments
Caries Management	1. DEJ 2. dentin firmness 3. pulp mgt. 4. non-coalesced fissure mgt.		stained or soft DEJ soft dentin pulp not managed non-coalesced fissures not managed	
Preparation	5. occlusal/ non-proximal	overextended underextended F L M D O/I G	overextended underextended F L M D O/I G	
external outline	6. proximal	overextended underextended F L G	overextended underextended F L G	
internal	7. pulpal floor	shallow deep nonparallel	shallow deep nonparallel	
outline	8. axial wall(s)	shallow deep nonparallel F L M D	shallow deep nonparallel F L M D	
	9. gingival floor	sloping: F-L M-D	sloping: F-L M-D	
taper	10. wall convergence/ divergence	excessive insufficient F L M D O/I G	excessive insufficient F L M D O/I G	
enamel support	11. flare	excessive insufficient F L M D O/I G	excessive insufficient F L M D O/I G	
definition	12. internal line angles	rounded sharp irregular	rounded sharp irregular	
retention	13. retentive groove(s)/lug(s)	location length width depth	location length width depth	
	14. pin(s)	location length angulation	location length angulation	
	15. bevel	location length angulation	location length angulation	
finish	16. preparation smoothness	catches roughness walls floors cavosurface	step(s) walls floors cavosurface	
Restoration contact	17. proximal contact	excessive insufficient firmness width depth	excessive insufficient firmness width depth	
marginal integrity	18. margins	overextended underextended F L M D O/I G	overextended underextended F L M D O/I G	
axial contour	19. embrasures, height of contour	overcontour undercontour G O/I L F	overcontour undercontour G O/I L F	
function & esthetics	20. occlusion	excessive insufficient centric working protrusive	excessive insufficient centric working protrusive	
	21. anatomy & esthetics	marginal ridge grooves triangular ridge shade	marginal ridge grooves triangular ridge shade	
finish	22. restoration smoothness	scratched lacks finish	pitted gouged unfinished	
Tissue Management	23. tissue integrity	tooth soft tissue	tooth soft tissue	
	24. isolation	contamination damage	contamination damage	
Case Management	25. management	liner/base patient mgt. time mgt. faculty assistance infection control	liner/base patient mgt. time mgt. faculty assistance infection control	

WHITE copy - Restorative
YELLOW copy - Student

UDMSD Operative Caries Removal Competency Evaluation

Name: _____ ID# _____ Date: _____

☐ DS2 ☐ DS3 ☐ DS4

Competency
Grade:

procedure	self-eval

NOTE Two faculty initial for a competency examination

Evaluation: *Student underlines, Faculty circles*

Initials
ID#

Initials
ID#

Procedure	Excellent	Acceptable	Standard Not Met	Comments
Caries Management	1. sound enamel	minimal decalcification or stain, enamel only	decalcification, stain and/or caries in enamel at CSM	
	2. stain-free and firm dentin at DEJ		stained or soft DEJ	
	3. firm dentin		soft dentin	
	4. pulp management	minor errors in pulp management	pulp not managed mechanical pulp exposure	
	5. non-coalesced fissures removed or managed		non-coalesced fissures not removed or managed	
	6. extension for caries removal & assessment	overextended underextended	overextended underextended	
Tissue Management	7. tissue integrity	tooth soft tissue	tooth soft tissue	
	8. isolation	contamination damage	contamination damage	
Case Management	9. management	patient management time management infection control	patient management time management infection control	

Comments:

Parameters for Competency:

- Caries must extend into dentin and be evident at the DEJ.
- Two faculty members must evaluate the tooth following establishment of ideal outline form or upon complete removal of existing restoration to determine if it is acceptable for this exam.
- The tooth must be effectively isolated to prevent contamination of the preparation. Rubber dam isolation (RDI) is the norm, however situations in which RDI is contraindicated may be utilized for this exam *with prior faculty approval*.
- This exam cannot be combined with another examination (i.e., amalgam or composite competency).

Return this form to your instructor who will turn it in for grade calculation and entry.
A copy of this form will be returned to you once your grade is entered.

UDMSD Operative Rubber Dam Isolation Evaluation

Name: _____ ID# _____ Date: _____

☐ DS2 ☐ DS3 ☐ DS4

Competency
Grade:

Procedure

Self Eval.

* NOTE * Two faculty initial for a competency examination

Initials

Initials

Evaluation: *Student underlines, Faculty circles*

ID#

ID#

Procedure	Excellent	Acceptable	Standard Not Met	Comments
Clamp Placement	1. safety floss attached	short long in operative field	short long in operative field absent	
	2. correct clamp selected	large small	large small wrong type	
	3. clamp is stable	clamp stable but not ideally adapted	clamp unstable	
	4. effective clamp location	clamp location not ideal	improper tooth clamped	
Isolation plan	5. holes punched	size location	size location	
	6. access for instrumentation & visualization	not enough teeth isolated dam material in field	not enough teeth isolated dam material obstructs field non-clamped end not stable	
adaptation	7. no leakage, dam inverted	minor leakage	significant leakage	
	8. dam intact	tear dam pulls away from tooth	tear(s) dam pulls away from tooth	
	9. patient comfortable		patient uncomfortable nasal airway obstructed	
frame	10. frame centered on dam	frame off center	frame unstable frame impinging on tissue	
Removal	11. interproximal dam cut		interproximal dam not cut	
	12. clamp removed		clamp removal damages restoration tissue	
	13. removal of dam material		dam materials remains	
Tissue Management	14. tissue integrity	tooth soft tissue	tooth soft tissue	
Case Management	15. management	patient mgt. time mgt faculty assistance infection control	patient mgt. time mgt faculty assistance infection control	

Comments:

Parameters for Competency:

- Clamp first or second molar and isolate to opposite canine or first premolar.
- Stabilize rubber dam at distal of last (unclamped) tooth.
- No more than two missing teeth in area to be isolated.

WHITE copy - Restorative
YELLOW copy - Student

6/12/03

Michigan



Social Media Guidelines

Representing the University of Michigan and the School of Dentistry is an honor and a privilege provided to a select group of individuals. Along with that privilege comes a set of expectations and responsibilities as a Michigan student.

Through social media, you are being monitored by more individuals than ever before. Everything you do in these forums should positively represent the University, the School of Dentistry and your profession. Used responsibly, social media can be a great way to interact with friends, colleagues, prospective students and the public and promote the School and the profession of dentistry. Used irresponsibly it can be a quick way to destroy your reputation in 140 characters or less...and to potentially put you at risk for dismissal! This resource provides some tips and suggestions for using social media responsibly and effectively.

- **DO** set your security settings so that only your friends can see your account.
- **DON'T** accept friend or follow requests if you are not sure who they are coming from.
- **DO** understand that who you have listed as Followers or Friends is a reflection on you.
- **DON'T** put anything on social media that you would not want your family, your future employers, those reading the front page of the paper, or the whole world to see.
- **DO** think before you post, tweet or retweet – "Will this positively reinforce my image and my reputation?"
- **DON'T** post patient photos or personal patient information.
- **DO** remember that sharing patient information is a HIPAA violation and is subject to sanctions.
- **DON'T** post offensive language, personal attacks or racial comments.
- **DO** ask questions if you are not sure what you are doing is ok.
- **DON'T** post or tweet material presented during a course.
- **DO** talk to the [Director of Communications](#) about how to use social media to your advantage.
- **DON'T** post when you are emotional. You are more likely to say something you will regret.
- **DO** be familiar with the University's social media policy ([SPG 601.07](#)) and the consequences for violating it.
- **DON'T** post anything that could be construed as an endorsement or promotion of a business product or service, even if the business is owned by a relative or friend.

Other Resources:

<http://www.voices.umich.edu/docs/Social-Media-Guidelines.pdf>
http://mmd.umich.edu/forum/resources_socialguide.php

Privacy Settings

Facebook: <https://www.facebook.com/help/325807937506242/>
 Twitter: <https://support.twitter.com/articles/14016-about-public-and-protected-tweets#>

R: Clinically Ideal	S: Clinically Acceptable	T: Clinically Unacceptable (requiring some adjustment)	V: Clinically Unacceptable (requires major modification or repeat)
Finish of Walls and Margins <ul style="list-style-type: none"> <input type="radio"/> R (all statements are correct) <ul style="list-style-type: none"> • Enamel entirely supported. • Walls and margins smooth. • Cavity prep well-defined. 	<ul style="list-style-type: none"> <input type="radio"/> Enamel region slightly unsupported <input type="radio"/> Walls or margins slightly rough <input type="radio"/> Cavity prep slightly ill-defined 	<ul style="list-style-type: none"> <input type="radio"/> Enamel region moderately unsupported <input type="radio"/> Walls or margins moderately rough <input type="radio"/> Cavity prep moderately ill-defined 	<ul style="list-style-type: none"> <input type="radio"/> Enamel region severely unsupported <input type="radio"/> Walls or margins severely rough <input type="radio"/> Cavity prep severely ill-defined
Retention <ul style="list-style-type: none"> <input type="radio"/> R (all statements are correct) <ul style="list-style-type: none"> • Wall angulation (convergence / divergence) appropriate for restorative material. • Retention appropriate for restorative material. 	<ul style="list-style-type: none"> <input type="radio"/> Wall angulation slightly deviated <input type="radio"/> Retention slightly excessive, deficient, or misplaced 	<ul style="list-style-type: none"> <input type="radio"/> Wall angulation moderately deviated <input type="radio"/> Retention moderately excessive, deficient, or misplaced 	<ul style="list-style-type: none"> <input type="radio"/> Wall angulation severely deviated <input type="radio"/> Retention severely excessive, deficient, or misplaced
External Outline Form <ul style="list-style-type: none"> <input type="radio"/> R (all statements are correct) <ul style="list-style-type: none"> • External outline appropriate for convenience, removal of decalcification, and contiguous fissures. • Lines and curves smooth and consistent with tooth form. • No damage to adjacent teeth and soft tissues. 	<ul style="list-style-type: none"> <input type="radio"/> External outline slightly under/over-extended <input type="radio"/> Lines or curves slightly irregular <input type="radio"/> Slight damage to adjacent teeth (polishable) or soft tissues 	<ul style="list-style-type: none"> <input type="radio"/> External outline moderately under/over-extended <input type="radio"/> Lines or curves moderately irregular <input type="radio"/> Moderate damage to adjacent teeth (needing re-contour) or soft tissues 	<ul style="list-style-type: none"> <input type="radio"/> External outline severely under/over-extended <input type="radio"/> Lines or curves severely irregular <input type="radio"/> Severe damage to adjacent teeth (needing restoration) or soft tissues
Internal Outline Form <ul style="list-style-type: none"> <input type="radio"/> R (all statements are correct) <ul style="list-style-type: none"> • Resistance form adequate. • Caries removal adequate. • Tooth loss not excessive. 	<ul style="list-style-type: none"> <input type="radio"/> Resistance form slightly inadequate <input type="radio"/> Caries removal slightly inadequate <input type="radio"/> Tooth loss slightly excessive 	<ul style="list-style-type: none"> <input type="radio"/> Resistance form moderately inadequate <input type="radio"/> Caries removal moderately inadequate <input type="radio"/> Tooth loss moderately excessive 	<ul style="list-style-type: none"> <input type="radio"/> Resistance form severely inadequate <input type="radio"/> Caries removal severely inadequate <input type="radio"/> Tooth loss severely excessive

Policies for Academic Performance and Promotion

Preamble

This document defines the policies and procedures for academic performance and promotion of students enrolled in the predoctoral DDS program in the School of Dentistry. These policies and procedures are intended to: (1) be consistent with the educational mission and academic standards for the University of Michigan, School of Dentistry (2) encourage appropriate, reasonable and timely student achievement; (3) support and assure due process; and (4) facilitate student monitoring, recording, and other operations of the Office of Academic Affairs, Student Services and School Registrar.

Consistent with the University of Michigan, School of Dentistry Bylaws, compliance with these policies is facilitated by the Academic Review Boards I and II: ARB I for years 1 and 2 of the dental curriculum, and ARB II for years 3 and 4. The functions of these committees shall be:

- (1) To review and recommend to governing faculty approval of all progression and graduation policies for the DDS program. This includes recommending criteria for defining scholastic deficiencies and reinstating students whose further progression has been withheld according to the rules of the School of Dentistry.
- (2) To review mid-and end of semester progress and the transcripts of all students in academic difficulty and determine appropriate waivers or remedial, dismissal or readmission actions.

These policies will be applied and enforced by the Academic Review Boards

1. **Grade designations:**

Students may be reported as having passed a course with a grade of A (excellent), B (good), C (satisfactory) and P (passed). The addition of + or - may qualify A, B, or C grades. Deficiency grades are D (unsatisfactory), E (not passed) and F (fail). Other designations are I (incomplete), X (absent from final examination), and Y (grade deferred). For the purpose of evaluation, these grades are given the following (grade) honor point values:

A	=	4.0 pts.	C+	=	2.3 pts.
A-	=	3.7 pts.	C	=	2.0 pts.
B+	=	3.3 pts.	C-	=	1.7 pts.
B	=	3.0 pts.	D	=	1.0 pts.
B-	=	2.7 pts.	E	=	no pts.

2. **Computation of grade point averages and cumulatives:**

Semester grade point averages and cumulative grade point averages are computed and become a part of each student's academic record. These averages are derived by dividing the total number of honor (grade) points by the total number of credit hours taken. Honor (grade) points are derived by multiplying the grade point value by the credit hours assigned to each course. Credit hours and honor (grade) points are not calculated into the grade point average when grades of P, F, X, or Y are earned. Credit hours and honor (grade) points from all previous enrollment(s) are calculated into the cumulative grade point average.

3. **Deficiency and non-completion designations:**

Upon posting of grades in Wolverine Access of D, E, F, I, or X, the student must assume the initiative in arranging with the course director for re-examination or completion of any required additional work or repeating the course. Deficiency grades and designations of I, X, or Y must be removed prior to progressing from the clinical foundation program into the Comprehensive Care Clinic program in the D2 Winter semester and prior to graduation.

4. **Unsatisfactory performance designation:**

The grade of D designates unsatisfactory performance. Earning a D grade in a didactic, clinic or clinical foundation course requires a make-up examination, completion of remedial work., or both.

Didactic Courses: A grade of D earned in a didactic course must be remediated within eight weeks of the end of the semester or half semester in which the course was given. A student is allowed to take only two re-examinations to remove a grade of D, and in the event that the unsatisfactory grade is not removed in the second re-examination, the grade becomes an E (not passed). If the first re-examination results in an E grade, a second re-examination may not be taken.

Clinical Foundation Courses: A grade of D earned in a clinical foundation course must be remediated by satisfactory completion of remedial work prior to the end of the following semester.

Clinic Courses: A grade of D earned in a clinical course must be remediated by demonstration of satisfactory clinical performance and achievement of a passing grade by the end of the following semester.

If the unsatisfactory grade is removed, a grade of C-D will be recorded on the academic record and the grade points for a C- (1.7 points) will be used to compute the grade point average. A grade of D that is not remediated within the specified time will become an E grade (not passed), and will result in loss of the grade points provisionally assigned for a D.

5. Failing designations:

A failing grade of E or F is earned (a) when the performance in a course has not met the minimum standard set for the course by the course director; or (b) when a student fails to remove an unsatisfactory grade of D either by not passing the re-examination or by not following the timeline for removing a D.

Didactic Courses: A student earning a grade of E or F in a didactic course must (a) repeat the course at the first opportunity; or (b) at the discretion of the course director, satisfactorily complete supplemental work (equivalent to retaking the course) within eight weeks of the end of the semester or half semester in which the course was given

Clinical Foundation Courses: A student earning a grade of E or F in a clinical foundation course must, at the discretion of the course director, satisfactorily complete supplemental work prior to the end of the following semester

If the failed course is successfully passed, both the failing grade (E) and the revised (passing) grade that is earned by the student will appear on the academic record and the grade points for both will be used to compute the grade point average

Clinic Courses: A student earning a grade of E or F in a clinical course must satisfactorily complete the remediation and achieve a passing grade by the end of the following semester. The remediated grade will be a C- for the following clinical courses: Dent. 720, 720A, 720B, 720C/820, 820A, 820B, and 820C Comprehensive Care Clinic.

At the decision of the Academic Review Board (ARB), a student earning an E or F grade in a course may be required to withdraw from the ongoing predoctoral program and repeat the course in a subsequent semester when it is normally scheduled before continuing the program. Students must attend all lectures, complete all assignments and take all examinations in any course they repeat.

6. Incomplete designation:

A grade of I may be earned when a student is receiving a passing grade (C- or above), but failed to complete the required assignments in a course. When a grade of I is earned, it should be qualified by a letter grade, or a P in a P/F course, as an estimate of the final grade. Grades of I earned in didactic, Pathways or clinical foundation courses must be resolved within eight weeks of the end of the semester or half semester in which the course was given. A grade of I earned in a clinical course must be resolved prior to the end of the following semester. An I grade that is not resolved within the specified time will become an E grade (not passed), or F in a P/F course, and will result in loss of the grade points provisionally assigned for the qualified incomplete grade. The Academic Review Board may extend the time allowed to remove a grade of I for clinical courses with written approval from the student's VIC director and discipline coordinator.

7. The X designation:

The grade of X in a course is earned when a student is doing passing work but is unable to take the final examination due to personal illness or to illness in the immediate family, or for any other extenuating circumstances as determined by the course director. Grades of X received in didactic or clinical foundation courses must be remediated within eight weeks of the end of the semester or half semester in which the course was given. An X grade that is not remediated within the specified time will become an E grade (not passed) or F (P/F course).

8. Categories of academic discipline:

A) A student will automatically be placed on the warned list because of any of the following:

- (a) a semester grade point average between 1.7 and 2.0;
- (b) earning a D grade in a clinical or clinical foundation course.

A student will not be removed from the warned list until there are no D, E, or F grades on his/her record and the grade point averages for both semester and overall are a minimum of 2.0.

B) A student will automatically be placed on probation because of any of the following:

- (a) a semester grade point average of between 1.3 and 1.69;
- (b) a semester grade point average between 1.7 and 2.0 after having been placed on the warned list the previous semester;
- (c) earning two or more E or F grades in any semester;
- (d) earning an E or F grade in a clinical or clinical foundation course;
- (e) earning two or more D grades in clinical courses in any semester.

A student will not be removed from probation until there are no D, E, or F grades on his/her record and the grade point averages for both semester and overall are a minimum of 2.0.

C) Any students readmitted after having been dismissed due to academic difficulties will be placed on probation for a minimum of two consecutive semesters. Credit hours and honor (grade) points from all previous enrollment(s) are calculated into the cumulative grade point average.

D) A student will be dismissed from the School of Dentistry for any one of the following:

- (a) a semester grade point average below 1.3;
- (b) failure to obtain a semester grade point average of 2.0 after having been placed on probation the previous semester;
- (c) failure to obtain a semester grade point average of 1.7 or above after having been placed on the warned list the previous semester;
- (d) failure to obtain a semester grade point average of 2.0 or above in any three consecutive semesters;
- (e) being on either the warned list or on probation for four consecutive semesters;
- (f) earning two E or F grades in the same didactic, clinical foundation or clinical subject or course content; (g) if in the determination of the Executive Committee a student for any reason is considered to be unfit for the practice of dentistry including unprofessional conduct and violations of the honor code, or inability to meet the technical standards for the DDS program.

9. Program completion limits:

The expectation is that a student will complete the predoctoral DDS program in four years. A student may be granted up to six years to complete the predoctoral program. A student may take up to three years to complete the first two years of the program, and three years to complete the second two years of the program. Failure to meet these criteria will result in dismissal.

10. Requirements for graduation:

In order to graduate and be granted a DDS degree, by the end of the D4 year each student must:

- A. successfully complete of all clinical foundation, didactic and clinical courses; attain a minimum cumulative G.P.A. of 2.0 over a minimum of eleven full semesters and one summer half-term;
- B. have no D, E, F, I or X grades remaining on his/her record that have not been remediated with passing grades;
- C. successfully pass the D4 Objective Structured Clinical Examination (OSCE). If the OSCE is failed, the student must have successfully remediated any failed station(s) complete all work in progress on all assigned patients;
- D. be certified as "competent" by the student's Vertically Integrated Clinic director and individual discipline coordinators in Cariology, Endodontics, Oral Medicine/Oral Pathology, Oral Surgery, Pediatric Dentistry, Periodontics, and Prosthodontics;
- E. complete the Senior Checkout procedures as defined by the Office of Patient Services, the School Registrar and the Office of Academic Affairs.

11. Only students who have met all graduation requirements by graduation day will receive a diploma on that day. Students who are provisionally approved but have not completed all requirements by graduation day will be allowed

to walk on stage during commencement exercises, but will not receive a diploma; their diploma will be awarded and the degree conferred once all requirements have been completed

12. Academic review and appeal:

The Academic Review Boards will review academic achievement and administer academic discipline when appropriate. ARB I and II may make exceptions to the deadlines for removal of grades of “T” and “X” in cases where extenuating circumstances can be documented. When placed on the warned list or probation or dismissed from the School, the student will be notified in writing. Any student on academic discipline who does not understand the reasons for the action or the conditions imposed as a result of such action should contact the Assistant Dean for Student Services. Students have the right to appeal decisions of the Academic Review Board by following the appeal procedures.

School of Dentistry Student Appeal Procedures

A. Any dental student with a complaint about an academic or discriminatory matter may seek to resolve the problem through the following appeals procedure:

1. The dental student should discuss the problem or complaint with the involved faculty member.
2. If the problem cannot be settled satisfactorily through the above discussion, the dental student should present his/her complaint to the Associate Dean for Academic Affairs (ADAA).
3. If the problem cannot be solved satisfactorily by the ADAA, the dental student shall submit a written statement setting forth his/her position to the Dean of the School of Dentistry. The matter shall be referred to the Executive Committee of the School for a hearing of the grievance.
 - a. The dental student will be given notice of the date, place, time, and general format of the hearing reasonably prior to the hearing.
 - b. The dental student will have an opportunity to present his/her point of view and may be accompanied by a personal advisor of his/her choice who may be an attorney. An audio recording of the hearing shall be kept.
 - c. Within a reasonable period of time, the Executive Committee will make a decision which shall be in writing and shall state the reasons for the decision.

B. Decisions of the Academic Review Boards may be appealed according to the following procedure:

1. The dental student informs the ADAA, either verbally or in writing of his/her desire to appeal.
2. The student meets with the appropriate Academic Review Board to discuss the problem. Statements or items to be considered may be presented to the Board orally or in writing. In order to ensure accuracy, an audio recording of the hearing shall be kept.
3. Within a reasonable period of time following the hearing, the written decision of the Board and the reasons for the decision shall be provided to the student.
4. If the student is dissatisfied with the decision of the Board, the matter may be appealed to the Executive Committee by submitting a written statement describing his/her position to the Dean of the School of Dentistry (who chairs the Committee). The appeal procedure then follows the protocol delineated in section A 3a, b, and c (above).

The Executive Committee of the School of Dentistry may make exceptions to these policies when extenuating circumstances can be documented, after consulting with representatives of the appropriate committee (ARB I or ARB II) and course director(s). All decisions of the Executive Committee are final

In conclusion, enrollment in the School of Dentistry carries with it obligations in regard to conduct, not only inside but also outside the School environment; therefore, students are expected to be a credit both to themselves and the School. They are subject to the laws governing the community, as well as to the rules of the University, and are expected to observe the standards of conduct approved by the University and the School of Dentistry (The University of Michigan School of Dentistry Honor System Policy). Whenever students fail to observe these principles, or conduct themselves in such a manner as to make it apparent that they are not suited for the practice of dentistry, despite otherwise satisfactory academic performance, they shall be liable to disciplinary action up to and including dismissal or revocation of a degree.

Approved by faculty vote April 30, 2015

Midwestern

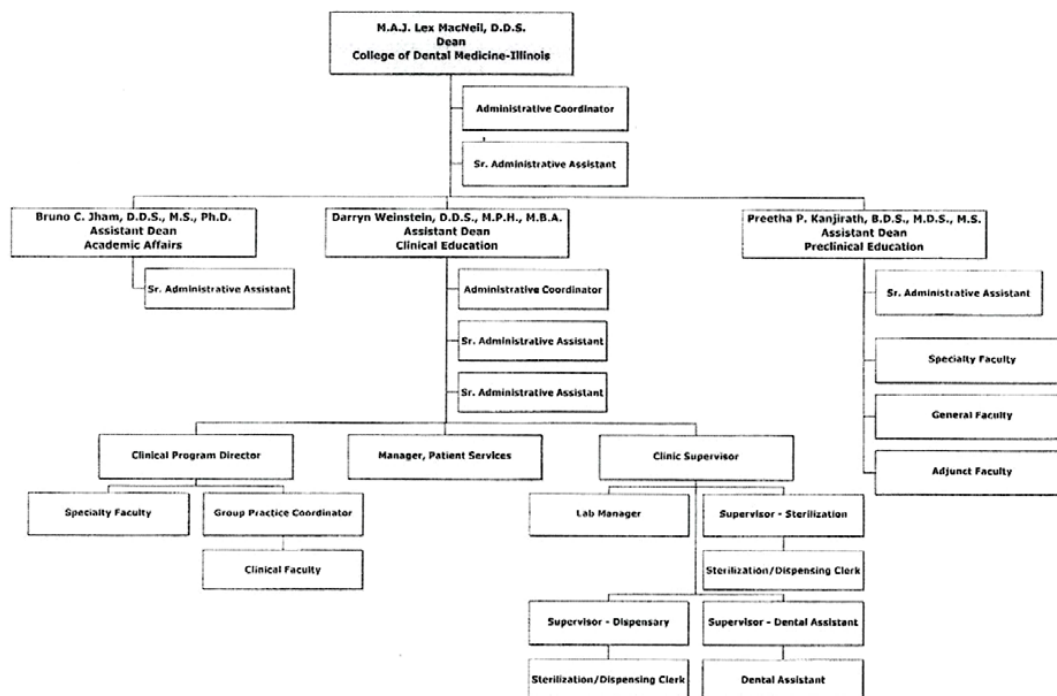
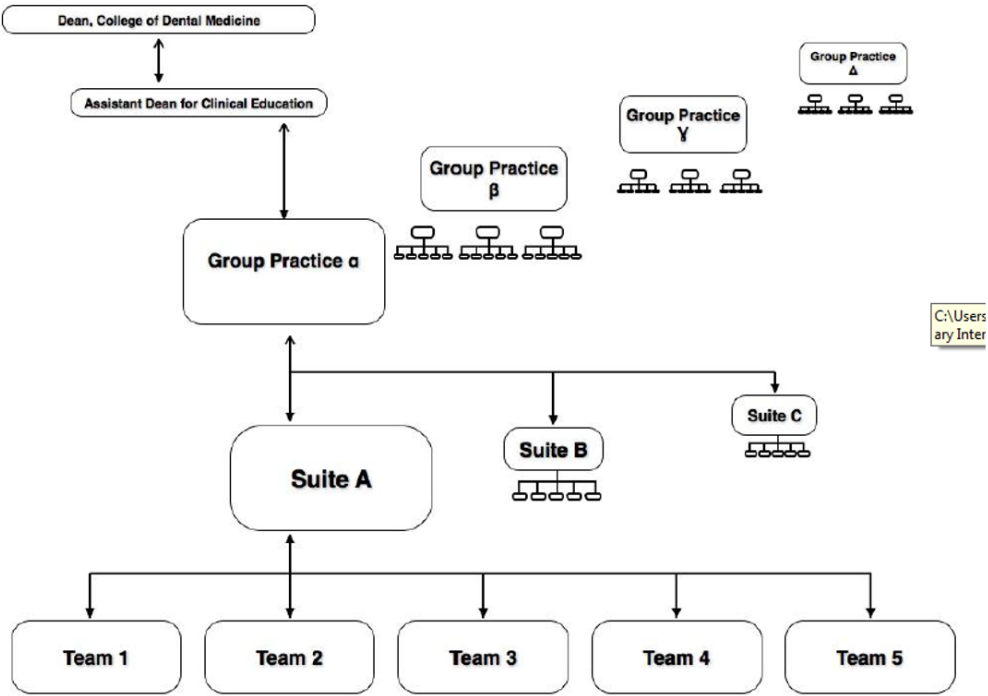


Figure 8. The CDMI Administrative and Faculty organizational structure



HIPAA Regulations

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) and its amendments radically raise the stakes with regard to medical record compliance issues. The purpose of this section is to help you comply with HIPAA as efficiently and cost effectively as possible and to give you confidence in handling patient confidentiality.

What HIPAA Requires

HIPAA requires you, as medical information professionals, and the entities you serve, to maintain reasonable and appropriate administrative, technical, and physical safeguards to ensure the integrity and confidentiality of healthcare information, to protect against reasonably foreseeable threats or hazards to the security or integrity of the information, and to protect against unauthorized uses or disclosure of the information. In addition, HIPAA provides criminal penalties for failure to comply with these requirements. HIPAA also requires the entity (Midwestern University) to notify individuals when there has been a Breach of unsecured protected health information. HIPAA also requires that health information be maintained securely such that there are:

1. Administrative procedures to guard data integrity, confidentiality, and availability.

CDMI Clinic Manual

2. Physical safeguards to guard data integrity, confidentiality, and availability.
3. Technical security services to guard data integrity, confidentiality, and availability.
4. Technical security mechanisms to prevent unauthorized access to data transmitted over a communications network.

From those four simple categories come many specific requirements for those of you who maintain and transmit electronic health data.

Confidential Information

Employees and students at the CDMI have access to "confidential information." Confidential information includes, but is not limited to, information relating to:

- ☐ Dental records information (includes all patient data, conversations, and patient financial information),
- ☐ Employee information (salary, social security number, employment records, and disciplinary actions),
- ☐ Protected Health Information (PHI) as defined by HIPAA includes, but is not limited to, names, all geographic subdivisions; all elements of dates (except year) for dates directly related to an individual, telephone numbers, fax numbers, electronic mail addresses, social security numbers, dental record numbers, health plan beneficiary numbers, account numbers, certificate/license numbers, vehicle identifiers, device identifiers and serial numbers, web universal resource locators (URLs), internet protocol (IP) address numbers, biometric identifiers, including finger and voice prints, full face photographic images and any comparable images; and any other unique identifying number, characteristic, or code.
- ☐ University information (i.e., financial and statistical records, strategic plans, internal reports, memos, contracts, quality and peer review information, and communications).
- ☐ Computer programs, client and vendor proprietary information, source code, and proprietary technology.

Access and Confidentiality

Confidential information is valuable and sensitive and is protected by Federal and State laws, including HIPAA, and College policies. The intent of these laws and policies is to assure that confidential information will remain confidential - that is, that it will be used only as necessary to accomplish the College of Dental Medicine's mission. Members of CDMI will use confidential information only as necessary to perform legitimate duties as an employee or student affiliated with the College. This means, among other things, that members of the CDMI will:

- ☐ only access confidential information for which they have a need to know.
- ☐ not in any way divulge, copy, release, sell, loan, review, alter or destroy any confidential information except as properly authorized within the scope of your professional activities affiliated with College.
- ☐ will not misuse confidential information or haphazardly care for confidential information.
- ☐ will safeguard and will not disclose any access code or any other authorization that allows access confidential information. The College reserves the right to monitor access to the network, including individual accounts, if deemed appropriate.
- ☐ not share, lend or give out their assigned access code and or any other access authorization.

CDMI Clinic Manual

- ☐ will report activities by any individual or entity that they suspect may compromise the confidentiality of confidential information. Reports made in good faith about suspect activities will be held in confidence to the extent permitted by law, including the name of the individual reporting the activities.
- ☐ have no right or ownership interest in any confidential information referred to above.
- ☐ be responsible for misuse or wrongful disclosure of confidential information and for failure to safeguard access code or other authorization access to confidential information.

Patient Confidentiality Statement

Information obtained in the patient's dental record shall be treated as confidential and will be released in appropriate circumstances only with the written consent of the patient or legal guardian. All persons providing services at the College of Dentistry who have access to information concerning patients, including faculty, student dentists, and staff, must hold such information in strict confidence.

Computers

If a practitioner leaves the workstation they must log out of the electronic patient record. As a security measure computers running the axiUm patient record system are programmed to automatically log out after a maximum of 30 minutes of inactivity.

Dialogue Protocol Dialogue involving patient care and treatment are essential components to communication between faculty, student dentists, and staff; however, discretion in public areas is essential to maintaining patient confidentiality. It is the responsibility of all faculty, student dentists, and staff to refrain from discussing patients away from clinical treatment areas. Confidential information should never be discussed with anyone outside of Midwestern University's College of Dental Medicine. It is considered a breach of patient confidentiality to discuss patient care and treatment outside of the clinical setting. **Records** Information entered into the electronic record regarding patient's information and their health care provider's entries and clinical notes is confidential. The information on a patient's dental chart is confidential and should not be disclosed without the patient's knowledge and consent.

Posted Materials Printed materials containing patient information of any kind (e.g. daily schedules) should not be posted on bulletin boards, taped to countertops or placed in any other public location. Information of this nature may be maintained as long as it is concealed from the public's view.

Release of Patient Information and Records Patients retain the right to all information contained within their dental record. Records (except for draft copies of treatment plans) should not be given to patients. All requests for copies of records by patients or attorneys should be referred to the Office of the Assistant Dean for Clinical Education. Consultation with the university's general counsel may be required.

Only the Office of the Assistant Dean for Clinical Education or their designee may release records. When the patient, or a third party, requests a copy of the record, a written request and release, signed by the patient, are required. The fee for copying records is listed in the Procedure Fee Schedule. Under no circumstances should

records be copied for patients or third parties by students, faculty, or staff. **CDMI Clinic**

Manual

All inquiries regarding patient records should be directed to the Office of the Assistant Dean for Clinical Education for appropriate disposition. The contents of the patient's records are not to be discussed over the telephone except for consultation with other healthcare professionals who should be identified and their consultative information entered into the patient's record. Any student who receives a request for information from insurance companies or attorneys regarding patient condition or prognosis following an accident or injury, will forward the request to the Office of the Assistant Dean for Clinical Education.

All dental records are the property of the College of Dental Medicine. Patients, or their legal guardian, have the right of access to information contained within the dental record. When the patient requests copies of his/her record, the following procedure is to be followed:

1. Written requests submitted to the dental assistant using the Release of Information Form (Appendix F)
2. The request is forwarded to the Office of the Assistant Dean for Clinical Education for approval.
3. The approved request is forwarded to the business office, along with any applicable fee as listed in the procedure fee table, for processing. The request is scanned into the patient's electronic record.
4. Compliance with a release of information request must occur within 48 hours.

Student dentists, faculty, or staff that may not release records to the patient or patient's representative without proper approval.

Request for Special Privacy Protection

HIPAA provides the patient the right to request special privacy treatment of their Protected Health Information within the Midwestern University Dental Institute. The patient may request that Midwestern University send patient communications by alternative means or to an alternative locations to protect the patient's confidentiality regarding the care and treatment the patient is receiving at the Midwestern University. Special Privacy Protection must be requested in writing using the form found in the appendix of the Clinic Manual (Appendix Q).

Access to Faculty, Staff and Student Dental Records

The following procedures will be followed in order to ensure confidentiality of all faculty, staff, students and administrators records:

- ☐ At the time of registration, the registration clerk should ask the patient if he or she is an employee or student of Midwestern University. The registration clerk will then flag the electronic dental record as sensitive.
- ☐ If at any time an employee requires information contained in their dental record, the employee must follow the standard policy for release of information.
- ☐ The AxiUm system maintains a log of every access an electronic record which may be referenced through should there be questions regarding improper access to electronic records.

If any student, faculty, staff or administrator is concerned that their chart has not been marked sensitive, then they should contact the Office of the Assistant Dean for Clinical Education.

CDMI Clinic Manual

Clinical Faculty Remote Access To The Electronic Health Record (EHR) Systems

PURPOSE:

To establish the means by which clinical faculty will establish remote access to electronic health record (EHR) systems.

POLICY:

1. Access will only be granted to Clinic Faculty that have existing access to the EHR system.
2. Access to the EHR systems are based on the policies set by each clinic and controlled by the Application Specialist for that system.
3. Remote access approval for an EHR system must be requested using the technology request system.
4. Remote access will be provided using a secure, encrypted technology that meets industry standards, and HIPAA, HITECH, and any corresponding regulations, as implemented by the Information Technology Services department.

Confidentiality Agreement

All Student dentists, faculty and staff are required to sign a confidentiality agreement (Appendix M) upon commencement of their relationship with Midwestern University College of Dental Medicine - Illinois.

Disciplinary Action Plan

The goal of this program is to protect confidential information. Should a breach be detected, prompt investigation and corrective action will occur as required by College policies and legal requirements. Students, staff and faculty involved in a breach of protected health information will be disciplined as outlined in the Compliance section of the Clinic Manual.

Minimum Necessary Use of Protected Health Information

PURPOSE:

To provide guidance for the minimum necessary use of Protected Health Information ("PHI") pursuant to the Health Information Technology for Economic and Clinical Health Act (collectively, the "HITECH Act") and any other applicable federal or state law(s).

DEFINITIONS:

Access means the ability or means necessary to read, write, modify, or communicate data/information or otherwise use any system resource.

Disclosure means the release, transfer, provision of, access to, or divulging in any other manner of information outside the entity holding the information.

Protected Health Information ("PHI") means individually identifiable health information entered into a medical record or that was created, used, or disclosed in the course of providing health care services.

Secured PHI is PHI that has been rendered unusable, unreadable, or indecipherable to unauthorized individuals by either encryption or destruction by a method approved by the National Institute of Standards and Technology

(e.g., NIST Special Publications 800-52, 800-77, 800-88, 800-111, 800-113).

Manual

CDMI Clinic

Use means the sharing, employment, application, utilization, examination, or analysis of PHI in any format.

POLICIES:

1. PHI shall only be accessed, acquired, used, or disclosed as expressly authorized or permitted by University policy, its notice of privacy practices, and/or applicable law.
2. Unless otherwise provided by law, the amount and type of PHI accessed, acquired, used, or disclosed shall be limited to the *minimum necessary* needed to accomplish the intended, authorized purpose(s) of the use or disclosure. This limitation may not apply in situations involving disclosure to a parent or legal guardian of a minor child, disclosure to a third party pursuant to written authorization from the patient, or disclosure to law enforcement, the government, or other administrative or judicial authorities. The University's Risk Management Department or other designee should be consulted before using or disclosing more than the minimum necessary PHI.
3. Where practicable, ePHI should be encrypted or otherwise put into a form rendering it Secured PHI.

Midwestern University - Illinois

Clinic Student Daily Evaluation

Student self evaluation:

My preparedness for the procedure or situation

Clinical outcome & patient satisfaction

Anything that could be improved

Faculty Evaluation:

Professionalism

Clinical Skills

Comments are made by supervising faculty.

The session grade (S or U) is given by the group practice coordinator based upon the comments made



PARAMETERS OF CARE GUIDELINES

In accordance with the principles of patient-centered care, the Midwestern University Dental Institute will accept all persons who present for care that are consistent with the capabilities and capacity of the CDMI pre-doctoral educational program. Some exceptions exist, such as those patients with medical and/or behavioral conditions that are beyond the educational and clinical capabilities of the CDMI pre-doctoral educational program. It is necessary to limit complicated and extensive treatment at the pre-doctoral level in order to focus on teaching fundamental patient care principles and take into consideration the basic level of student understanding and ability at this stage of clinical training.

Oral/medical/behavioral problems that are beyond the scope of the pre-doctoral dental student will be referred either internally or externally for appropriate care.

Only materials, instruments and equipment identified and dispensed by CDMI may be used in the clinics. Students/faculty must not use personal supplies for patient care.

Below is a list of dental procedures that, in most situations, should not be initiated at the pre-doctoral level. While not an exhaustive list, the following treatment options are usually considered beyond the parameters of the pre-doctoral DMD program. Faculty may take over treatment that becomes unexpectedly complex and would put the patient at risk.

Exceptions must receive prior approval from the **Group Practice Coordinator** and noted in axiUm.

TREATMENT PROCEDURES NOT TYPICALLY INITIATED AT THE PREDOCTORAL LEVEL

ENDODONTICS

- Endodontic retreatment
- Surgical endodontic cases
- Cases involving pulpal canal configuration or access that is recognized as complex and requiring a higher level of expertise
- Teeth requiring apexification or apexogenesis

ORAL MEDICINE

- Cases involving temporomandibular joint disorders, intra-articular disk displacement and/or dysfunction
- Sleep disorders

ORAL AND MAXILLOFACIAL PATHOLOGY

- Biopsy of mucosal lesions located in highly vascularized areas and/or sites with difficult access, such as the floor of the mouth and soft palate
- Biopsy of intra-osseous lesions



ORAL SURGERY

- ✱ Bone removal or recontouring requiring use of a handpiece
- ✱ Exodontia of most third molar teeth
 - Exodontia of impacted or ankylosed teeth
 - Alveoloplasty involving four or more extractions or tooth spaces
 - Alveoloplasty without extractions
 - Bone Grafting
 - Surgery involving the use of dermal fillers or Botox
 - Tori removal
 - Implant placement

ORTHODONTICS

- All planned tooth movement

PEDIATRIC DENTISTRY

- Frankl 1 Behavior-Definitely negative
Refusal of treatment; crying forcefully, fearful, or any other evidence of extreme negativism.
- Frankl 2 Behavior-Negative
Reluctance to accept treatment; uncooperative; some evidence of negative attitude but not pronounced i.e., sudden withdrawal.
- Children over the age of 14
- Interceptive orthodontics beyond average of 6 months
- Apexification
- Apexogenesis
- Cases requiring Oral, IV or general sedation
- Hand over Mouth Exercise
- Primary teeth with totally necrotic pulps

PERIODONTICS

Periodontal surgical intervention due to but not limited to the following conditions:

- Implant placement
- Non-plaque induced gingivitis
- Aggressive forms of periodontitis
- Mucogingival problems
- Periodontal disease associated with systemic illness
- Crown lengthening



RESTORATIVE/PROSTHODONTICS

- Treatment involving a change in the patient's vertical dimension of occlusion (for example: opening, restoring or re-establishing.) An exception is a patient with at least one completely edentulous arch.
- Fixed prosthodontics rehabilitation involving bilateral posterior reconstruction where the stability of the posterior occlusion may be compromised. At least one posterior occlusal vertical stop must be maintained as part of all fixed prosthodontics cases.
- Fixed prosthodontics rehabilitation involving more than 4 connected units.
- Anterior fixed prosthodontic esthetic rehabilitation involving more than 4 adjacent units.
- More than a total of 6 units of fixed prosthodontics, including all single and FPD units, and implant-supported crowns
- Semi-precision or precision attachments for fixed prostheses or removable partial dentures.
- Cantilevered fixed partial dentures are not to be considered as part of the overall treatment plan, except in the following cases:
 - Replacement of a maxillary or mandibular lateral incisor, using the canine as a single abutment.
 - Replacement of a maxillary or mandibular premolar (which must be double-abutted) (All patients for whom a cantilever FPD is being considered must be presented to the GPC with a treatment option of an implant-supported restoration, if clinically advisable.)
- Resin bonded fixed partial dentures, "Maryland" bridges, should not be considered for the replacement of maxillary incisors, mandibular incisors or mandibular premolars except when all other factors such as occlusion, esthetics and patient history have been carefully considered.
- Unilateral Removable Partial Dentures e.g., *Nesbitt partials*
- Flexible base removable partial dentures (e.g. Valplast or Cu-Sil types of RPD)
- Implant-supported crowns for maxillary and mandibular anterior teeth, and second and third molars

Ohio State

Class II Amalgam Preparation

External Outline Form	Satisfactory	Acceptable 1/2 mm from Ideal	Substandard 1 mm from Ideal	Deficient
Occlusal Extension	Pits and grooves completely included. Smooth curves.	Over-extended slightly Under-extended slightly Some sharp areas	Over-extended Under-extended Sharp areas	Grossly over- or under-extended
Isthmus Width	1-1.25 mm wide	Wide Narrow	Wide Narrow	>3.0 mm wide
Proximal Extensions	Visually free of contact to 0.5 mm out of contact	Over-extended slightly Under-extended slightly	Over-extended Under-extended	In contact with adjacent tooth or > 2 mm
Margins	Smooth, regular	Slightly rough, irregular	Rough, irregular	Cannot be restored
Adjacent tooth	Undamaged	Slightly damaged	Damaged	Grossly damaged

Internal Form	Satisfactory	Acceptable 1/2 mm from Ideal	Substandard 1 mm from Ideal	Deficient
B, L walls	Parallel or slightly convergent from gingival to occlusal 90° to proximal	Divergent Undercut Not 90°	Divergent Undercut Not 90°	Gross divergence, total lack of resistance and retention
"Dovetail" wall	Slightly divergent or vertical	Undercut Divergent	Undercut Too divergent	
Pulpal floor	1.5-2 mm deep, horizontal	Shallow Deep Angled	Shallow Deep Angled	>3 mm deep in pit <1.5 mm
Proximal Box	Convex axial wall 1.25 to 1.5mm deep Parallel long axis of tooth Flat gingival, no bevel	Not parallel to long axis Flat axial wall Slightly shallow or deep Angled gingival wall	Not parallel to long axis Concave axial Shallow or deep Angled gingival wall with excessive bevel	≥ 2.5mm deep

Name _____

Faculty _____

Class II Amalgam Preparation

EXTERNAL OUTLINE FORM

Occlusal outline

Includes appropriate pits and does not cross oblique ridge on first molar. Centered on central groove. Extends into buccal and lingual grooves, one-third to one-half of the way to cusp ridge. Outline is smooth, rounded and flowing. No sharp angles.

Isthmus width

1 to 1.25 mm wide buccolingually where the triangular ridges meet.

Proximal extensions

Contact is visibly open on buccal/lingual/gingival walls. Clearance ~ 0.25mm (explorer tip) but less than 0.5mm.

Margins

Smooth and regular. No chips or bevels.

Adjacent tooth

The adjacent tooth should be undamaged.

INTERNAL FORM

Buccal, lingual walls

Parallel or slightly convergent to occlusal. Form 90° angles with the proximal surface.

"Dovetail" wall

Vertical or slightly divergent toward marginal ridge.

Pulpal floor

Minimum depth is 1.5 mm in central pit. Maximum depth is 2 mm at triangular ridges.

Axial wall

Parallels proximal surface, convex buccolingually. Approximately 1.25 to 1.5 mm deep measured mesiodistally at the gingival floor. Approximately 1.5 mm in height (gingival to occlusal).

Gingival floor

Flat, smooth and perpendicular to the long axis of the tooth. No gingival bevel. Equal width when evaluated buccal to lingual.

Walls/line angles

Smooth and well defined. Vertical walls are flat occlusogingivally. The pulpal and gingival floors are flat in both dimensions. All line angles are well defined. The pulpal-axial line angle is rounded.

Class II Amalgam Restoration

MARGINAL INTEGRITY/SURFACE FINISH

Margins

Margins should be smooth and regular. No excess amalgam or deficiencies should be detectable either visually or with an explorer. No flash, or gingival overhang. No evidence of voids, open or ditched margins.

Surface finish

Amalgam surface should be uniformly smooth and free of scratches, pits, voids, and irregularities. Handpiece and burs should NOT be used for contouring, finishing, or polishing.

Tooth structure

No modification or recontouring of sound tooth structure.

CONTACT/PROXIMAL CONTOUR/ANATOMY

Contact

There is visual contact with adjacent tooth. Contact gives definite but not excessive resistance to passage of dental floss. Correct position is at height of contour of adjacent tooth. Width is 1-1.5 mm.

Embrasures

Four embrasures (occlusal, gingival, facial, and lingual) are reproduced, consistent with normal contours.

Proximal contour

Normal contours of the tooth are reproduced. The proximal is convex and continuous with tooth surfaces. Neither flat nor concave.

Marginal ridge

Reproduces the missing contour of the tooth. Normally, concave bucco-lingually and convex mesio-distally and the same height as the adjacent tooth's marginal ridge.

Grooves

Closely reproduce the normal anatomy of the tooth. The central, buccal, and lingual grooves are centered within the amalgam. Well defined.

Fossae

The central, mesial, and distal pits should have the original depth and location.

Cuspal planes

The buccal and lingual slopes should reproduce those of the tooth. The cuspal planes should not be concave (under contoured).

Occlusion

New restoration is in proper centric occlusion. Any centric marks (articulating paper) on the restoration are no heavier than other marks on the tooth and adjacent teeth.

Class II Amalgam Restoration

Marginal Integrity/ Surface Finish	Satisfactory	Acceptable	Substandard	Deficient
Margins	No excess or deficiency visually or with explorer Smooth and regular	Slight excess Slight deficiency Slightly rough, irregular	Excess Deficiency Rough, irregular	≥ 0.5 mm excess or deficiency Severe overhang or open margin
Surface Finish	Smooth, free of scratches, pits voids or irregularities	Slightly rough, dull, scratched, pitted, discolored or dirty	Rough, dull, scratched, pitted, discolored or dirty	Large voids
Tooth Structure	No recontouring or damage	Slight recontouring or damage to the tooth	Moderate recontouring or damage to the tooth	Gross removal of tooth structure

Contact/Proximal Contour/Anatomy	Satisfactory	Acceptable	Substandard	Deficient
Proximal Contact	Visual contact Correct width and position	Slightly wide or narrow Slight deviation from correct position	Too wide or narrow Incorrect position	Visually open contact Cannot pass floss
Embrasures	Normal contour	Slightly closed or open	Closed or too open	Embrasure space missing
Proximal Contour	Convex Continuous with tooth contour	Flat Slight deviation from tooth contour	Flat to concave Not continuous with tooth contour	
Marginal Ridge and Cuspal Planes	Proper height, width and contour	Slightly high or low Slightly wide or narrow Slightly under- or over-contoured	High or low Wide or narrow Under- or over-contoured	Marginal ridge significantly lower than adjacent tooth
Grooves and Fossae	Proper location, depth and width Well defined	Slightly incorrect location, depth or width Slight loss of definition	Incorrect location, depth or width Lack of definition	
Occlusion	Correct occlusion	Slightly high or occludes on an incline Slight infra-occlusion	High occlusion Infra-occlusion	Grossly high or incorrect occlusion

Name _____

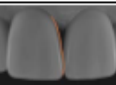
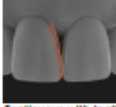

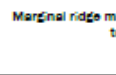
Faculty _____

CLASS III COMPOSITE RESTORATION EVALUATION FORM



CONTACT			
		CORRECT	ERROR
1	I-G	<p>Visual contact Correct width Correct position</p>	Wide Narrow Irregular Incorrect location
2	F-L		Wide Narrow Irregular
DEFICIENCY	NO FLOSS PASSES THROUGH	VISUALLY OPEN CONTACT	TOO CONCAVE CREATING OVERHANG
FACIAL CONTOUR			
3	Facial Embrasure	<p>Symmetrical with normal contour</p>	Too closed Too open
4	Facial anatomy	<p>Reproduces correct facial anatomy</p>	Over contoured Under contoured
EMBRASURES			
5	Gingival Embrasure	<p>Symmetrical with normal contour</p>	Too closed Too open
6	Lingual Embrasure	<p>Symmetrical with normal contour</p>	Closed Too open

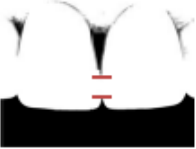




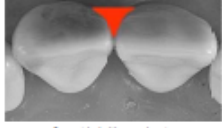
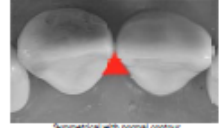

CLASS III COMPOSITE RESTORATION EVALUATION FORM

PROXIMAL OUTLINE				
		CORRECT	ERROR	
7	Proximal contour		Convex, Continuous with tooth contour and mirrors contralateral tooth	Flat Not continuous with tooth contour
8	Line angles		Continuous with tooth contour and mirrors contralateral tooth	Line angle incorrect
LINGUAL ANATOMY				
9	Lingual Fossa		Continuous with tooth	Over contoured Under contoured
10	Marginal Ridge		Marginal ridge matches contralateral tooth	Over contoured Under contoured (flat) Too narrow Too wide
DEFICIENCY	GROSS OVER-CONTOURED		GROSS UNDER-CONTOURED	
MARGINAL INTEGRITY				
11	Margins	No excess or deficiency visually or with explorer Smooth and regular	Excess (>0.5mm) Deficiency (>0.5mm) Rough Irregular	
DEFICIENCY	GROSS EXCESS (>1MM).	GROSS DEFICIENCY (>1MM).	SEVERE FLASH	OPEN MARGINS VOIDS
SURFACE FINISH				
12	Surface finish	Smooth, polished, free of scratches, pits, irregularities, discoloration, dirt	Rough Scratched Discolored	Dull Pitted Dirty
IATROGENIC DENTISTRY				
13	Tooth structure	No recontouring or damage	Slight recontouring or damage (due to softness of plastic tooth)	Gross removal of tooth (exposure of dentin)
14	Adjacent tooth structure	No recontouring or damage	Slight Recontoured or damage (due to softness of plastic tooth)	

*

Any Critical Error (CE) (red color) will result in a failing grade

CLASS IV COMPOSITE RESTORATION: Self-evaluation.

CONTACT AND PROXIMAL CONTOUR			
	SATISFACTORY	SUBSTANDARD	DEFICIENCY
Contact	 <p>Visual contact Correct width Correct position</p>	<p>wide</p> 	No floss passes through.
		<p>Narrow</p> 	Visually open contact.
Incisal Embrasure	<p>Symmetrical with normal contour</p> 	Closed	
		Too open	
Gingival Embrasure	<p>Symmetrical with normal contour</p> 	Closed	
		Too open	
Facial Embrasure	 <p>Symmetrical with normal contour</p>	Closed	
		Too open	
Lingual Embrasure	 <p>Symmetrical with normal contour</p>	Closed	
		Too open	
Proximal contour	 <p>Coronal Continuous with tooth contour</p>	Flat	
		Not continuous with tooth contour	

CLASS IV COMPOSITE RESTORATION: Self-evaluation.

FACIAL/LINGUAL/INCISAL CONTOUR				
	SATISFACTORY	SUBSTANDARD		DEFICIENCY
Facial contour	Continuous with tooth Line angle correct, matches contralateral tooth	Over contoured		Gross over or under contoured
		Under contoured		
		Line angle incorrect		
Lingual contour	Continuous with tooth Marginal ridge matches contralateral tooth	Over contour		Gross over or under contoured
		Under contour		
		Marginal ridge incorrect		
Incisal edge/point angle	Height, angle, thickness, contour match contralateral tooth	High	Low	Gross over or under contour
		Thick	Thin	
		Sharp	Round	

MARGINAL INTEGRITY/SURFACE FINISH				
	SATISFACTORY	SUBSTANDARD		DEFICIENCY
Margins	No excess or deficiency visually or with explorer Smooth and regular	Excess (>0.5mm)		Gross excess or deficiency (>1mm). Severe flash or open margins
		Deficiency (>0.5mm)		
		Rough		
		Irregular		
Surface finish	Smooth, polished, free of scratches, pits, irregularities, discoloration, dirt	Rough	Dull	
		Scratched	Pitted	
		Discolored	Dirty	
Tooth structure	No recontouring or damage	Recontoured or damage to tooth		Gross removal of tooth (exposure of dentin)

Random Number _____

Composite Restoration Criteria**MARGINAL INTEGRITY/SURFACE FINISH****Margins**

Margins should be smooth and regular. No excess composite or deficiencies should be detectable either visually or with an explorer. No flash, or gingival overhang. No evidence of voids, open or ditched margins.

Surface finish

Composite surface should be uniformly smooth and free of scratches, pits, voids, irregularities, and should be highly polished.

Tooth structure

No modification or recontouring of sound tooth structure.

CONTACT/PROXIMAL CONTOUR/ANATOMY**Contact**

There is visual contact with adjacent tooth. Contact gives definite but not excessive resistance to passage of dental floss. Correct position is at height of contour of adjacent tooth. Width is 1-1.5 mm.

Embrasures

Four embrasures (occlusal, incisal, gingival, facial, and lingual) are reproduced, consistent with normal contours.

Proximal contour

Normal contours of the tooth are reproduced. The proximal is convex and continuous with tooth surfaces. Neither flat nor concave.

Marginal ridge

Reproduces the missing contour of the tooth. Normally, concave bucco-lingually and convex mesio-distally and the same height as the adjacent tooth's marginal ridge.

Grooves

Closely reproduce the normal anatomy of the tooth. The central, buccal, and lingual grooves are centered within the restoration. Well defined.

Fossae

The central, mesial, distal, and lingual pits should have the original depth and location.

Cuspal planes

The buccal and lingual slopes should reproduce those of the tooth. The cuspal planes should not be concave (under contoured).

Occlusion

New restoration is in proper centric occlusion. Any centric marks (articulating paper) on the restoration are no heavier than other marks on the tooth and adjacent teeth.

Random Number _____

Composite Restoration Criteria

	Satisfactory	Acceptable	Substandard	Deficient
Margins	No excess, overhang, or deficiency visually or detectable with the fine of an explorer. No evidence of voids or open margins	There is a detectable marginal excess or deficiency of 0-0.2mm	There is detectable marginal excess or deficiency of 0.2mm-5mm	≥ .5 mm excess or deficiency Severe overhang or open margin
Surface Finish	Surface is free pits, voids or irregularities. Well-polished.	Surface is slightly grainy, rough, dull, scratched, pitted, discolored or dirty.	Surface is rough and significant irregularities exist. Difficult to correct with finish and polish	Surface is severely pitted, rough scratched and has voids. Inadequate condensation of material. Damage not correctable with finish and polish
Tooth Structure	No recontouring or damage. No evidence of removal or modification of tooth structure adjacent to the restoration. No adjacent tooth damage.	Slight recontouring or Minimal evidence of removal of surrounding tooth structure. Slight adjacent tooth damage.	Moderate recontouring or moderate evidence of unnecessary removal of surrounding tooth structure. Moderate adjacent tooth damage.	Severe removal of tooth structure. Severe adjacent tooth damage.
Proximal Contact	Visually closed Correct width and position	Visually closed. Slightly wide or narrow. Slight deviation from correct position	Too wide or narrow Incorrect position Visual contact but little resistance to floss or shreds	Visual open contact, no resistance to floss or cannot pass floss
Embrasures	Normal contour	Slightly closed or open	Closed or too open	Embrasure space missing
Proximal Contour	Convex Continuous with tooth contour	Flat Slight deviation from tooth contour	Flat to concave Not continuous with tooth contour	Irregular contours would damage surrounding tissues
Marginal Ridge and Cuspal Planes	Proper height, width and contour	Slightly high or low Slightly wide or narrow Slightly under- or over- contoured	High or low Wide or narrow Under- or over- contoured Flat	Marginal ridge significantly lower than adjacent tooth
Grooves/ Fossae	Proper location, depth and width Well defined	Slightly incorrect location, depth or width Slight loss of definition	Incorrect location, depth or width Lack of definition	No grooves. No fossae. Grossly incorrect anatomy.
Occlusion	Correct occlusion	Slightly high or occludes on an incline Slight infra-occlusion	High occlusion with marks on remaining tooth structure or adjacent teeth. Moderate Infra-occlusion	Grossly high or incorrect occlusion. No contact on other teeth in the arch.

Comments _____

Grade _____

Random Number _____

Veneer Composite Restoration

	Satisfactory	Acceptable	Substandard	Deficient
Margins	No excess, overhang, or deficiency visually or detectable with the line of an explorer. No evidence of voids or open margins	There is a detectable marginal excess or deficiency of 0-0.2mm	There is detectable marginal excess or deficiency of 0.2mm-5mm	≥ .5 mm excess or deficiency Severe overhang or open margin
Surface Finish	Surface is free of pits, voids or irregularities. Well-polished.	Surface is slightly grainy, rough, dull, scratched, pitted, discolored or dirty.	Surface is rough and significant irregularities exist. Difficult to correct with finish and polish	Surface is severely pitted, rough scratched and has voids. Inadequate condensation of material. Damage not correctable with finish and polish
Tooth Structure	No recontouring or damage. No evidence of removal or modification of tooth structure adjacent to the restoration. No adjacent tooth damage.	Slight recontouring or Minimal evidence of removal of surrounding tooth structure. Slight adjacent tooth damage.	Moderate recontouring or moderate evidence of unnecessary removal of surrounding tooth structure. Moderate adjacent tooth damage.	Severe removal of tooth structure. Severe adjacent tooth damage.
Proximal Contact	Visually closed Correct width and position	Visually closed. Slightly wide or narrow. Slight deviation from correct position	Too wide or narrow Incorrect position Visual contact but little resistance to floss or shreds	Visual open contact, no resistance to floss or cannot pass floss
Embrasures	Normal contour	Slightly closed or open	Closed or too open	Embrasure space missing
Proximal Contour	Convex Continuous with tooth contour	Flat Slight deviation from tooth contour	Flat to concave	Irregular contours would damage surrounding tissues
Incisal location and Contour	Proper height, width and contour (Facial and Lingual)	Slightly (< .25 mm) long or short Slightly wide or narrow Slightly under- or over-contoured	High or low (> .25 mm or < .5mm) Wide or narrow Under- or over-contoured Flat	> .5 mm long or short.
Facial Contour	Reproduces contour, shape, and anatomy of unprepared tooth.	Slightly incorrect reproduction contour, shape, and anatomy of unprepared tooth.	Incorrect reproduction contour, shape, and anatomy of unprepared tooth.	Does not resemble unprepared tooth in contour shape, and/or anatomy.
Occlusion	Correct occlusion	Slightly high or occludes on an incline Slight infra-occlusion	High occlusion with marks on remaining tooth structure or adjacent teeth. Moderate Infra-occlusion	Grossly high or incorrect occlusion. No contact on other teeth in the arch.

Comments _____

Random Number _____

Veneer Composite Restoration

Grade _____

MARGINAL INTEGRITY/SURFACE FINISH**Margins**

Margins should be smooth and regular. No excess composite or deficiencies should be detectable either visually or with an explorer. No flash, or gingival overhang. No evidence of voids, open or ditched margins.

Surface finish

Composite surface should be uniformly smooth and free of scratches, pits, voids, irregularities, and should be highly polished.

Tooth structure

No modification or recontouring of sound tooth structure.

CONTACT/PROXIMAL CONTOUR/ANATOMY**Contact**

There is visual contact with adjacent tooth. Contact gives definite but not excessive resistance to passage of dental floss. Correct position is at height of contour of adjacent tooth. Width is 1-1.5 mm.

Embrasures

Four embrasures (Incisal, gingival, and facial.) are reproduced, consistent with normal contours.

Proximal contour

Normal contours of the tooth are reproduced. The proximal is convex and continuous with tooth surfaces. Neither flat nor concave.

Incisal location and Contour

Reproduces the proper height, width and contour (Facial and Lingual) of the incisal part of the restoration..

Facial Contour

Reproduces the missing contour of the tooth.

Occlusion

New restoration is in proper centric occlusion. Any centric marks (articulating paper) on the restoration are no heavier than other marks on the tooth and adjacent teeth.

PRACTICAL 2 VENEER PREPARATION

Random # _____

External outline Form		Satisfactory	Acceptable 1/4 mm from ideal	Substandard 1/2mm from ideal	Deficient
Chamfer Continuity		Continuous from MI to DI.			Not continuous from MI to DI
Chamfer Location		.5 mm from the free gingival margin. Extends lingual to the M & D Line Angles at 1 mm or more.	Slightly closer to the free gingival margin Extends lingual to the M & D Line Angles < 1 mm	At the free gingival margin.	Subgingival or > 1 mm from the free gingival margin At or facial to M or D Line Angles
Chamfer width		.4-.6mm Wide	.6mm - .75 mm	> .75 mm and < 1 mm or < .4 mm	>1 mm wide. Chamfer is barely discernible.
Proximal Reduction	Mesial and distal	Visually in contact and extends lingual to mid-point of contact.	Overextended slightly Under extended slightly		Breaks contact visually, does not extend lingually into the contact at all.
	Incisal	1.0 mm reduction	Overextended slightly Under extended slightly	Overextended Under extended	Reduction < .5 mm Reduction > 2 mm
Margins		Smooth, regular	Slightly rough, irregular	Rough, irregular	Cannot be restored
Adjacent tooth		Undamaged	Slightly damaged	Damaged	Grossly damaged

Internal Outline Form	Satisfactory	Acceptable 1/4 mm from ideal	Substandard ½ mm from ideal	Deficient
Facial Reduction Outline	Follows facial contour of unprepared tooth	Slightly deviates from original contour	Deviates from the original contour	Does not follow contour of the tooth and would remove all of the enamel in some areas (> 1 mm of reduction)
Facial Reduction	Uniform .5 mm reduction on facial	Slightly less or slightly more uniform reduction	Non-uniform reduction varying > .5 mm	Not reduced at all or > 1 mm facial reduction
Incisal-Facial Line Angle	Rounded with no sharp areas		Partially rounded but some sharp areas remaining	Sharp Incisal-Facial Line Angle
Incisal-Lingual Line Angle	Incisal-Lingual Line Angle is a 90 degree butt joint	Incisal-Lingual Line Angle is slightly less or greater than 90 degrees	Incisal-Lingual Line Angle < 75 degrees or > 105 degrees	Incisal-Lingual Line Angle is rounded or has a chamfer created apical to the Incisal edge.

Comments _____

Grade _____

PRACTICAL 2 VENEER PREPARATION

EXTERNAL OUTLINE FORM

Chamfer Continuity

Chamfer is continuous from the MI to the DI. Chamfer is smooth, rounded and flowing. No sharp angles. Chamfer is no greater than 1 mm and no less than .5 mm from the free gingival margin.

Chamfer Location

The chamfer extends beyond the mesial and distal line angles so as to be barely visible from the mesial or distal view.

Chamfer width

The chamfer is $>.4$ and $<.6$ mm wide.

Proximal extensions Mesial and distal

The chamfer extends to the FL middle of the proximal contact. There are no "crab claws" or "J" margins.

Incisal Reduction

The Incisal edge is reduced 1 mm.

Margins

Smooth and regular. No chips or bevels.

Adjacent tooth

The adjacent tooth should be undamaged.

INTERNAL FORM

Facial Reduction Outline

The facial reduction follows facial contour of unprepared tooth.

Facial Reduction

The facial reduction of the veneer preparation is uniform .5 mm .

Incisal-Facial Line Angle

The Incisal –facial line angle is rounded with no sharp areas.

Incisal-Lingual Line Angle

The Incisal-Lingual Line Angle is a 90 degree butt joint.

Pittsburg

Clinical DAILY Assessment Rubric: Clinical Restorative Dentistry (RESTD 5379/5449)

Student Name: _____ Faculty Name: _____ Date: _____
 Instructions to Faculty: Please circle the criteria in the appropriate area if it is less than "Meets All Expectations" and indicate points in the Faculty Assessment column. If one or more Critical Error(s) occur, then score 65 as Total Points

Criteria	Meets All Expectations	Satisfactory with no Critical Error(s)	Critical Error(s)	Faculty Assessment
Case Presentation	10 points - Medical history is complete, and conditions reviewed appropriately, including implications for dental care, medical alerts reviewed and updated - Medications and any implications for dental care accurately identified - Tooth is appropriately planned for treatment and pertinent radiographs reviewed	7.5 points - Medical history is complete, however, minor inaccuracies were noted/observed by faculty during review which did not compromise patient safety - Tooth is planned and pertinent radiographs are available and current but radiographs reviewed only after faculty prompting	0 points - The medical history is incomplete, conditions not reviewed, or implications for dental care not identified - Medications or implications for dental care not identified appropriately - Tooth is not planned appropriately, radiographs are not available or outdated	Points:
Anesthesia and Isolation	15 points - Chooses the appropriate local anesthetic drug/dose, achieves the desired effect, and if necessary, manages the patient's pain/anxiety - Chooses appropriate isolation technique(s) - Armamentarium and materials are used properly to isolate the operating field and provide moisture control and soft tissue management	11.25 points - Faculty noted/observed inaccuracies during the process to anesthetize the patient and/or manage the patient's pain/anxiety, however, patient comfort and safety was not compromised or ignored - Isolation is less than ideal but does not compromise overall prognosis or patient safety	0 points - Faculty noted/observed inaccuracies or no action taken during the process to anesthetize the patient and/or manage the patient's pain/anxiety that compromised patient comfort and safety - Isolation is not used when indicated or technique used compromises overall prognosis or patient safety	Points:
Preparation: External Form	25 points - Extends into all carious areas while conserving tooth structure - Provides adequate access for removal of caries, existing restoration and placement of restoration - Smooth, continuous outline - Proximal box outline is free of contact with adjacent tooth when necessary - Margins terminate in sound tooth structure - No damage to adjacent tooth or restoration - External Form allows for proper form, function, and esthetics	18.75 points - Outline form is overextended but does not compromise remaining marginal ridge or cusp(s) - Outline form is underextended but does not compromise placement or prognosis of restoration - Outline form has insignificant areal(s) of roughness - Slight damage to adjacent tooth/restoration exists and can be removed without adversely altering the contour of the tooth	0 points - Outline form is significantly overextended or under extended not allowing for proper form, function, and esthetics - Outline form has significant irregularities/roughness/sharp angles - Significant damage to adjacent tooth/restoration which changes the shape of the contour or requires a restoration	Points:
Preparation: Internal Form	25 points - All caries are removed or properly managed - No previous restorative material remains - All prepared surfaces are smooth and well defined - Depth of prepared surfaces are appropriate for removal of all caries and/or restorative material - The buccal and lingual walls of the occlusal and proximal box are slightly convergent occlusally - Internal Form allows for proper form, function, and esthetics	18.75 points - Some caries remain and is recognized by student with plan for management - Some irregularities/roughness exist at the prepared surfaces but does not compromise placement and prognosis of restoration - Depth of internal form is overextended beyond what is necessary to remove caries but does not affect overall prognosis of tooth - The buccal and lingual walls of the occlusal and proximal box may diverge occlusally but does not compromise longevity of restoration or tooth	0 points - Caries are NOT removed, properly managed, or recognized by student - Significant irregularities/roughness exist at the prepared surfaces - Depth of internal form is overextended beyond what is necessary to remove caries to which iatrogenic damage is concluded which may result in direct or indirect pulp capping or unrecognized pulp exposure - The buccal and lingual walls of the occlusal and proximal box diverge occlusally offering no retention and jeopardizing the longevity of the tooth/restoration	Points:

Final Restoration	25 points	18.75 points	0 points	Points:
	<ul style="list-style-type: none">- Final restoration is properly placed allowing the tooth proper form, function and esthetics- Correct placement of a liner/base as pulp protection if necessary- Final restoration has no evidence of flash, pits, scratches, marginal deficiencies or voids- The interproximal contact is in the correct position and shape, visually re-established and with definite but not excessive floss resistance or shredding- all centric and excursive contacts on the restoration are consistent in size, shape and intensity with such contacts on other teeth in quadrant	<ul style="list-style-type: none">- Some irregularities to the liner/base exist, but not to compromise pulp protection or final restoration- Some evidence of flash, pits, scratches, marginal deficiencies or voids exist but not to compromise prognosis of restoration/tooth- The interproximal contact is visually closed, but the contact is deficient in size, shape or position and demonstrates little resistance to floss or slightly shreds the floss- Some hyper-occlusion exists but minor adjustments to correct- Although some errors occurred, the final restoration allows for proper form, function, and esthetics	<ul style="list-style-type: none">- Improper placement of liner/base i.e. remains at the cavosurface margin- Significant evidence of flash, pits, scratches, voids and marginal deficiencies, and/or an open margin that compromise the prognosis of restoration/tooth- The interproximal contact is visually open or will not allow floss to pass through the contact area- There is gross hyper-occlusion so that the restoration is the only point of occlusion in the quadrant- Additional errors in the placement of the final restoration that does not allow for proper form, function and esthetics	

Points:

Total Points: _____

Faculty Signature: _____

Faculty Comments _____

Clinical Assessment Rubric: Qualities of a General Dentist

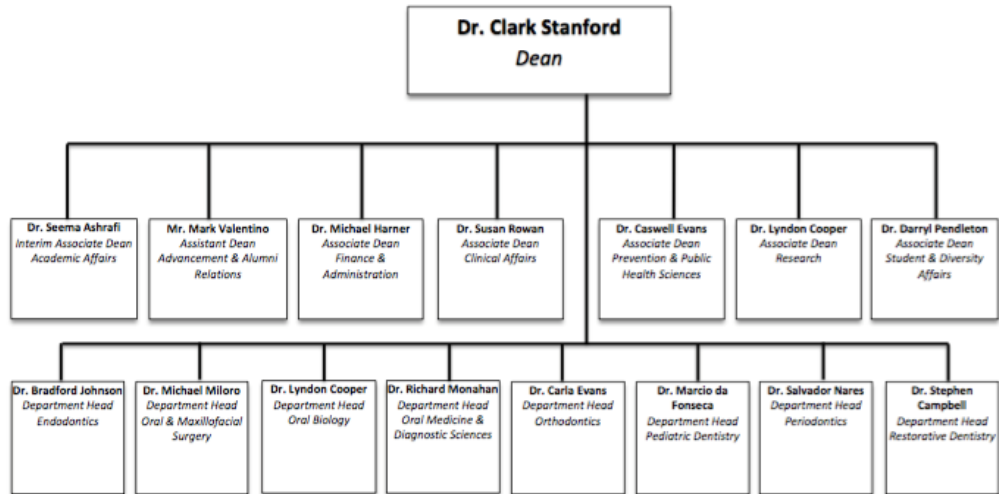
Instructions to Faculty: Criteria for Qualities of a General Dentist should be assessed during clinic sessions. If expectations are not met, entries should be made in the Blackboard Organization for Global Assessment.

Qualities of a General Dentist	Meets Expectations (M)	Awareness Conference (AC) or Needs Improvement (NI)	Unsatisfactory (U)
Critical thinking	<ul style="list-style-type: none"> - Demonstrates ability to analyze situation and arrive at reasonable decisions - Recognizes need to re-assess planned or in-progress care due to changes in patient health, social, or behavioral situation 	<ul style="list-style-type: none"> - Demonstrates attempt to analyze situation and arrive at decisions but thinking has minor flaws 	<ul style="list-style-type: none"> - Inability to analyze situation places patient care or prognosis at risk
Infection Control and Regulations	<ul style="list-style-type: none"> - Adheres to all infection control policies and procedures - Complies with federal, state, and local regulations related to patient care. 	N/A	<ul style="list-style-type: none"> - Violates infection control policy, putting self, patient, or others at considerable risk - Violates federal, state or local regulations related to patient care - Is disrespectful or inconsiderate of patient
Patient Management	<ul style="list-style-type: none"> - Demonstrates respect, empathy, and consideration for all patients regardless of race, ethnicity, gender, etc. - Presents the patient to faculty prior to treatment and includes all pertinent information - Obtains informed consent - Ensures patient comfort - Provides appropriate patient education 	N/A	<ul style="list-style-type: none"> - Case presentation omits pertinent information that could place patient at risk - Informed consent is inadequate or not obtained - Patient education critical to the patient's recovery or prognosis is omitted - Does not demonstrate respect, integrity or honesty - Provides patient care without faculty supervision
Ethical Principles	<ul style="list-style-type: none"> - Demonstrates respect, integrity and honesty 	N/A	<ul style="list-style-type: none"> - Arrives late for appointment - Lack of preparation significantly delays care
Time Management/ Organization	<ul style="list-style-type: none"> - Provides care only under the direct supervision of faculty - Arrives on time for appointment - Is prepared for appointment 	<ul style="list-style-type: none"> - Less than ideal preparation results in minor delays to patient care 	<ul style="list-style-type: none"> - The EHR is missing major entries or entries are inaccurate
Record Management	<ul style="list-style-type: none"> - The EHR is complete and accurate 	N/A	



UIC

Organizational Chart



West Virginia

COMPLETE DENTURE CLINICAL PERFORMANCE ASSESSMENT

Name: _____ Date: _____ Patient: _____

Final Impression Making

Faculty Assessment

RATING	DIAGNOSTIC CAST/CUSTOM TRAY	BORDER MOLDING	IMPRESSIONS
4 Outstanding	<ul style="list-style-type: none"> ▪Optimal extension of tray border into peripheral roll. ▪Optimal border thickness of 2 to 2.5 mm and flat ▪Optimal extension of maxillary tray into pterygomaxillary notches and posterior palatal seal area ▪Optimal extension of mandibular tray to cover retromolar pads and extends into retro mylohyoid area ▪Optimal handle ▪Diagnostic casts optimal 	<ul style="list-style-type: none"> ▪Optimal reproduction of height and width of peripheral roll ▪Optimal reproduction of frenum attachments ▪Optimal roundness of peripheral roll ▪Optimal smoothness and continuity 	<ul style="list-style-type: none"> ▪Optimal thickness of impression material in tray ▪Optimal reproduction of supporting tissues with no significant voids ▪Optimal peripheral borders that are well defined and demonstrate proper thickness ▪Optimal extension of borders. ▪Optimal resistance to movement when vertical and horizontal pressure is applied
3 Excellent	<ul style="list-style-type: none"> ▪Acceptable reduction of tray borders from peripheral roll ▪Acceptable border thickness and flatness ▪Acceptable extension of maxillary tray into notches and PPS area 	<ul style="list-style-type: none"> ▪Acceptable reproduction of height and width of peripheral roll ▪Acceptable reproduction of frenum attachments ▪Acceptable roundness of peripheral roll ▪Acceptable smoothness and continuity 	<ul style="list-style-type: none"> ▪Acceptable thickness of impression material ▪Acceptable reproduction of supporting tissues with minor voids ▪Acceptable peripheral borders in thickness and length ▪Acceptable resistance to movement
2 Meets Expectations	<ul style="list-style-type: none"> ▪Acceptable extension of mandibular tray in posterior and lingual ▪Acceptable handle ▪Diagnostic casts acceptable, but not ideal 		

UNACCEPTABLE

1 Below Expectations	▪Unacceptable reduction of tray borders	▪Unacceptable reproduction of height and width of peripheral roll	▪Unacceptable thickness of impression material
	▪Unacceptable border thickness and flatness	▪Unacceptable reproduction of frenum attachments	▪Unacceptable reproduction of supporting issue
	▪Unacceptable extension of maxillary tray in posterior	▪Unacceptable roundness of border (border is too thin or too wide)	▪Unacceptable peripheral borders
0 Critical	▪Unacceptable extension of mandibular tray in posterior and lingual	▪Unacceptable smoothness and continuity	▪Unacceptable resistance to movement
Error	▪Unacceptable handle		
	▪Diagnostic casts unacceptable		

Sections: Grade _____ Grade _____ Grade _____

Grade _____ Instructor _____

COMPLETE DENTURE CLINICAL PERFORMANCE ASSESSMENT

Name: _____ Date: _____ Patient: _____

Final Impression Making**Student Self- Assessment**

RATING DIAGNOSTIC CAST/CUSTOM TRAY BORDER MOLDING IMPRESSIONS

Outstanding	4	<ul style="list-style-type: none"> ▪Optimal extension of tray border into peripheral roll. ▪Optimal border thickness of 2 to 2.5 mm and flat ▪Optimal extension of maxillary tray into pterygomaxillary notches and posterior palatal seal area ▪Optimal extension of mandibular tray to cover retromolar pads and extends into retro mylohyoid area ▪Optimal handle ▪Diagnostic casts optimal 	<ul style="list-style-type: none"> ▪Optimal reproduction of height and width of peripheral roll ▪Optimal reproduction of frenum attachments ▪Optimal roundness of peripheral roll ▪Optimal smoothness and continuity 	<ul style="list-style-type: none"> ▪Optimal thickness of impression material in tray ▪Optimal reproduction of supporting tissues with no significant voids ▪Optimal peripheral borders that are well defined and demonstrate proper thickness ▪Optimal extension of borders. ▪Optimal resistance to movement when vertical and horizontal pressure is applied
		<ul style="list-style-type: none"> ▪Acceptable reduction of tray borders from peripheral roll ▪Acceptable border thickness and flatness ▪Acceptable extension of maxillary tray into notches and PPS area 	<ul style="list-style-type: none"> ▪Acceptable reproduction of height and width of peripheral roll ▪Acceptable reproduction of frenum attachments ▪Acceptable roundness of peripheral roll 	<ul style="list-style-type: none"> ▪Acceptable thickness of impression material ▪Acceptable reproduction of supporting tissues with minor voids ▪Acceptable peripheral borders in thickness and length
		<ul style="list-style-type: none"> ▪Acceptable extension of mandibular tray in posterior and lingual ▪Acceptable handle ▪Diagnostic casts acceptable, but not ideal 	<ul style="list-style-type: none"> ▪Acceptable smoothness and continuity 	<ul style="list-style-type: none"> ▪Acceptable resistance to movement
Excellent	3			
Meets Expectations	2			

UNACCEPTABLE

Below Expectations	1	<ul style="list-style-type: none"> ▪Unacceptable reduction of tray borders ▪Unacceptable border thickness and flatness ▪Unacceptable extension of maxillary tray in posterior 	<ul style="list-style-type: none"> ▪Unacceptable reproduction of height and width of peripheral roll ▪Unacceptable reproduction of frenum attachments ▪Unacceptable roundness of border (border is too thin or too wide) 	<ul style="list-style-type: none"> ▪Unacceptable thickness of impression material ▪Unacceptable reproduction of supporting issue ▪Unacceptable peripheral borders ▪Unacceptable resistance to movement

0	▪Unacceptable extension of mandibular tray in posterior and lingual	▪Unacceptable smoothness and continuity
Critical		
Error	▪Unacceptable handle	
	▪Diagnostic casts unacceptable	

Sections: Grade _____ Grade _____ Grade _____

Grade _____ Instructor _____

DENT 775
Dental Auxiliary Utilization Dental Student Evaluation Form

Student: _____ Assistant: Ceda Reed Barb Walters

Date: _____

Procedure/Summary: _____

Offered time: _____

Is this a Make-up

session?: _____

Criteria for grades: 30 points for each clinical evaluation; 100 points for clinic utilization (attendance)

A progress (PR) grade is reported to the Registrar and a progress letter grade is reported to the Academic and Professional Standards Committee each semester. A final letter grade is reported to the Registrar in the semester in which the student graduates.

Each clinical evaluation is based on 30 criteria. The DAs evaluate the student's Patient Management, Practice Management, Professional/Intraprofessional, and Technical Skills. Grades are: A=27-30 criteria; B=24-26 criteria; C=21-23 criteria.

The DAs evaluate total Clinic Utilization (attendance). A student is offered DAU time in which one of his/her patients is scheduled.

(3rd year students begin with 0 attendance points, and earn 100 for the first DAU)

Attendance of 1 hour or less of DAU = -5 points; Missed DAU = -10 points; Make-up DAU = +10 points (with maximum of 100 points)

*No attendance deduction occurs with a missed DAU assignment in which the student had a short notice assignment (<24 hours advance notice to the student).

DA GRADE:

STUDENT SELF

EVALUATION:

 /10 **Patient Management and Practice Management Skills (1 point for each unless otherwise noted)**

 /10

(2 points) Answered any of the DA's a-mails about the session

(2 points) Advised DA of procedure change before instruments were signed out (excluding urgent issues)

Prepared

On time, ready

(2 points) Dismissed patient by 11:45 or 4:00 (or 4:45 when clinic starts at 2:00)

Protective of PHI

Planned procedure time well

Egregious error in which additional points are docked: _____

 /10 **Professional/Intraprofessional Skills (1 point for each)**

 /10

Sensitive to patient's comfort

Receptive to patient's concerns

Sensitive to cultural factors

Individualizes care to patient's special needs

Explained procedures to patient

Courteous to DA/showed enjoyment working with DA

Accepted suggestions willingly

Acted professionally

Worked in a neat, organized manner

Appreciated working with DA as part of a team

Egregious error in which additional points are docked: _____

 /10 **Technical skills (1 point for each)**

 /10

Provides adequate anesthesia as needed

Concerned with quality of work

Utilizes proper infection control procedures

Interested in 4-handed techniques

Student assumed proper seated position

Student used proper finger rests

Instrument transfer was with finger rests

Used mirror for indirect vision

Requested instruments (did not reach)

Followed logical sequence and maximum use of instruments/burs

Egregious error in which additional points are docked: _____

Attendance is mandatory. All absences must be cleared through the D

CLINICAL COMPETENCY FOR DENTISTRY 785 (6 CREDIT HOURS)

Competency In Managing Malocclusion Is Accomplished By:

- a. Requiring students to perform orthodontic screenings on patients with developing malocclusions. This will help students recognize interferences in normal growth and development, and take appropriate actions including treatment, referral, and recall. Students must complete the orthodontic screening form for each orthodontic screening in order to receive credit points and be evaluated for competency. Each time the students perform an orthodontic screening, they will be given a narrative feedback on their progress towards competency in diagnosing and treatment planning for malocclusions. A copy of the Orthodontic Screening Form is on page 15.
- b. Passing the clinical competency examination given at the beginning of the second semester of the fourth year. Students are asked to evaluate the profile, occlusion in three lines of space, alignment, and formulate a diagnosis for several patients with developing malocclusions. Post-treatment records of these cases will be presented to students and students will be asked to evaluate the treatment outcomes to determine if the treatment objectives have been met. A score of 90 or above (out of 100 points) is required to pass the examination.
- c. Participating in the treatment of at least one orthodontic patient who needs orthodontic treatment. This will ensure that each student is exposed to active tooth movement utilizing fixed and/or removable appliance therapy. At the end of the treatment, each student will be required to evaluate the treatment outcome.
- d. Presenting a treatment plan to faculty. Students are required to present an oral and written treatment plan of their assigned orthodontic patients to an orthodontic faculty. Faculty will provide feedback to the student on their competency in managing malocclusions.

Grading Policies for the *Junior Year*

Progress grades will be given based on the following items:

1. Performing a specified minimum number of orthodontic screenings.
2. Identifying a patient who requires limited orthodontic treatment.
3. Treatment of patient assigned to student.
4. Presentation of treatment plan to faculty.
5. Progress of students towards competency in diagnosing and treatment planning for

malocclusions (narrative feedback from daily procedures).

6. Accumulating a minimum number of weighted value units (WVU's) for clinical work.

Note: The following descriptions are for the ***end of the academic year*** progress grades. A letter grade of "C" will be given for interim progress grades, unless the requirements for a higher grade as described below have been met by the due date of the interim progress grade.

A Clinical Course Deficiency Progress Report (See page 18) may be issued if, in the faculty's judgment, the student is in danger of dropping below a "C" (e.g. No orthodontic screenings performed by the middle of spring semester in the junior year). Any student receiving such a report must meet with the Department Chair for consultation.

The criteria for each progress grade are as follows:

Progress grade of "C"

1. **Perform a minimum of ten orthodontic screenings.** Five of these ten screenings must be performed on young patients with a developing malocclusion. The remaining five screenings are to be performed on adult patients. You will be evaluated on your quality of work for each orthodontic screening you perform and you will receive feedback from the instructor on your progress towards competency in diagnosing malocclusion.

You are encouraged to perform as many orthodontic screenings as possible during the junior year (i.e. more than the minimum ten) for three reasons: a) to identify at least one patient who needs limited orthodontic treatment who will serve as your limited orthodontic treatment case (please see orthodontic clinic manual for criteria on patient selection), b) to get yourself acquainted with the orthodontic screening form, and c) to perform evaluations of malocclusions in three planes of space to help prepare you for your clinical competency exam in your senior year.

Plus

2. **Accumulate at least 50 WVU's.**

(Note: Failure to meet the above minimum requirements to achieve a “C” will result in a progress grade of “F”)

Progress grade of “B”

1. **All requirements for the progress grade of “C”** (listed above)

Plus

2. **Identify a patient for limited orthodontic treatment.** Students are encouraged to identify a patient who requires limited orthodontic treatment (interceptive orthodontic procedures, or adult patients who require adjunctive orthodontic treatment). Orthodontic records for this patient must be taken prior to the due date for progress grades at end of the junior year (Spring semester) to receive credit. You will be evaluated for the quality of work by narrative feedback from the instructor.

Plus

3. **Accumulate at least 62 WVU’s.**

Progress grade of “A”

1. **All requirements for the progress grade of “B”** (listed above)

Plus

2. **Begin treatment on patient identified for limited orthodontic treatment.**

Plus

3. Accumulate at least 165 WVU's.

Evaluation Criteria for Orthodontic Screening

The quality of your work will be evaluated by the instructor at the end of each session and you will be feedback at mid-term and at the end of each semester for your progress towards competency in orthodontic diagnosis.

During each session, you will be evaluated on your ability in identifying malocclusions in four planes of space:

- Alignment
- Transverse
- Anteroposterior, and
- Vertical dimensions.

You will be evaluated on your ability to discern whether the malocclusions require interceptive treatment, adjunctive adult orthodontic treatment, and comprehensive orthodontic treatment or be referred to specialists for consultation.

Professionalism Assessment will also be monitored during your clinic time.

Grading Policies for the *Senior Year*

Note: As with the junior year progress grades, the following descriptions are for the *end of the academic year* progress grades. Interim progress grades will be a letter grade of “C”, unless the requirements for a higher grade (or if warranted, a lower grade) as described below have been met by the date interim progress grades are due.

A **Clinical Course Deficiency Progress Report** may be issued if progress falls below a “C”. Any student receiving such a report must meet with the department chair for consultation.

A competency examination will be given during the Spring semester of the senior year. Students will be asked to diagnose cases with various malocclusions (See page 16- **Clinical Competency Grading Form** and evaluation criteria listed below). Students who fail to pass the competency examination will be required to take a remediation examination. Students must perform five additional screenings prior to taking the remediation examination. Students who fail to take the

remediation examination will receive a final letter grade "F", and will be required to re-enroll in Dent 785.

1. Students are encouraged to perform as many orthodontic screenings as possible during the senior year for the reasons mentioned previously.
2. An orthodontic patient will be assigned to each 3rd year student at the beginning of the Summer session. An orthodontic resident will be assigned to assist you in treating this patient since all of these patients will require comprehensive orthodontic treatment. You are required to see your assigned patient for **EVERY visit from the time of assignment** unless you arrange ahead of time with the Chair of Orthodontics. **Students are required to stay for the entire morning or afternoon session to receive credit for the visit.** This is designed to allow dental students an opportunity to be exposed to comprehensive orthodontic treatment. At the end of the year, there will be a chart review to assess the number of appointments you were present with your assigned patient.

Students who during their senior year: 1) see their assigned patient every visit, 2) show by instructors' report that students are making progress towards competency in diagnosis and treatment planning for orthodontic malocclusions, 3) perform at least six orthodontic screenings over and above the 10 completed during their junior year (of these: 3 must be on children, and 3 must be on adults), and 4) accumulate a total of 286 WVU's [cumulative total for both the junior and senior years], will receive a letter grade "C".

Students who during their senior year: 1) see their **assigned patient** every visit, 2) have identified, begun treatment, and successfully see (for every appointment) a **limited treatment patient** 3) perform at least six orthodontic screenings over and above the 10 completed during their junior year (of these: 3 must be on children, and 3 must be on adults), and 4) accumulate a total of 454 WVU's [cumulative total for both the junior and senior years], will receive a letter grade "B".

Students who during their senior year: 1) see their **assigned patient** every visit, 2) have identified, begun treatment, and successfully see (for every appointment) a **limited treatment patient** 3) perform at least six orthodontic screenings over and above the 10 completed during their junior year (of these: 3 must be on children, and 3 must be on adults), 4) accumulate a total of 454 WVU's [cumulative total for both the junior and senior years], and 5) receive a "Good" or "Excellent" on all the evaluation forms will receive an "A" for the course. (See Student Evaluation Forms at the end of this section)

Students who fail to see their assigned patient or limited treatment patient for three to four (3-4) visits will drop a letter grade. Students who fail to see their patients five (5) or more times will drop two letter grades. Students whose grade falls below a “C” will receive an “F” grade for the course. Students who receive an “F” grade will be required to re-enroll in Dent 785 again.

Procedural Grade for Treatment Planning

Students are required to review their cases with a **full time faculty member prior to the end of the FALL semester**, after treatment planning the case with the help of their assigned resident and the faculty supervising the case. All records (radiographs, models, photos, patient chart, cephalometric tracing and analysis by student, final typed treatment plan formulated by resident and faculty supervisor, and any other pertinent information for that particular patient) should be brought to the treatment planning appointment.

Note: A treatment planning review appointment cannot be done unless there is a **typed approved treatment plan** by the resident that has been approved by the supervising faculty member.

Students will be evaluated on whether they are well prepared for the treatment plan review. This review must include:

- All relevant material, as listed above, brought to treatment planning appointment,
- Cephalometric tracing, and analysis form, completed by student (separate from resident tracing and analysis)[note: a cephalometric analysis may not be needed in some limited treatment cases],
- Student can correctly explain cephalometric findings [if cephalometric film was indicated], and
- Student can explain and discuss problem list, diagnosis, and treatment plan put together by assigned resident and faculty supervisor.

Procedural Grade for All Other Orthodontic Treatment

Students are expected to be knowledgeable about the procedure(s) to be performed that day, and should be prepared to discuss them with the faculty. Students will be evaluated on their knowledge about the planned procedures, active participation in the treatment of the patient, and professionalism during the session. A narrative feedback will be given by the instructor at the end of the treatment session.

Clinical Course Deficiency

Student

Orthodontics/Dentistry 785 Clinical Orthodontics

Department/Division and Course Number

Areas of Deficiency

Number of screening procedures performed:

Quality of performance with screening:

Patients not seen regularly:

Progress grade:_____

Required Correction

Students who receive a progress grade of “F” must contact the department chair, Dr. Peter Ngan, within one week of receiving this notification.

Name of Course Director

Date

Orthodontic Clinic Evaluation of Student During Screening

Date of evaluation:

Faculty:

Completion of screening form: Did student fill out the screening form completely?

Satisfactory

Unsatisfactory

Comments:

Accurate diagnosis of problems: Diagnosis of malocclusion in four planes of space: alignment, anteroposterior, transverse and vertical. Is the problem skeletal or dental in nature?

Excellent

Good

Satisfactory

Below Average

Comments:

Accurate treatment decision: Does the patient require interceptive treatment, comprehensive orthodontic treatment, referral to a specialist for consultation or adult adjunctive treatment?

Excellent

Good

Satisfactory

Below Average

Comments:

Orthodontic Treatment Planning Student Evaluation

Date of evaluation:

Faculty:

Treatment plan: Student well prepared for treatment plan (completion of treatment plan summary and cephalometric analysis)

Satisfactory

Unsatisfactory

Comments:

Accuracy of diagnosis and treatment planning: Knowledgeable of diagnosis of problems in 4 planes of space and arrive at the proper treatment plan.

Excellent

Good

Satisfactory

Below Average

Comments:

Orthodontic Clinic Evaluation of Student During Patient Care

Date of evaluation:

Faculty:

Preparation for Treatment: Knowledgeable about planned procedure (e.g. fitting and cementing molar bands)

Excellent

Good

Satisfactory

Below Average

Comments:

Participation in Treatment: Student participates in treatment or only observes treatment

Only observe treatment

Active participation in treatment

Comments:

ORTHODONTIC SCREENING FORM

DEPARTMENT OF ORTHODONTICS WEST VIRGINIA UNIVERSITY SCHOOL OF DENTISTRY																																																										
P A T I E N T I N F O R M A T I O N	LAST NAME :		FIRST NAME :			M.I. :		SCREENING DATE : <u> </u> / <u> </u> / <u> </u> DENTAL CHART # <u> </u> ASSIGNED RESIDENT FACULTY RECALL <u> </u> / <u> </u>																																																		
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			OVERJET:	<u> </u> mm.	OVERBITE	<u> </u> %	OPENBITE																																																			
	ACTIVE CARIES:		NONE EVIDENT	PRESENT	RESTORATIONS: NONE PRESENT REQUIRED																																																					
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<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="margin: 0;">X = EXTRACTED</p> <p style="margin: 0;">S = SUPERNUMERARY</p> <p style="margin: 0;">O = CONGENITAL ABSENCE</p> <p style="margin: 0;">A = ATYPICAL FORM</p> <p style="margin: 0;">D = DECALCIFICATION</p> <p style="margin: 0;">C = CARIES</p> </div> <div style="width: 45%; text-align: right;"> <p style="margin: 0;">LEFT</p> </div> </div>																																																										
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WEST VIRGINIA UNIVERSITY SCHOOL OF DENTISTRY**Department of Orthodontics****Clinical Competency Grading Form****Profile Evaluation (10 points)**

Facial convexity,

Maxillary position

Mandibular position

Nasolabial angle

Vertical proportion

Lip competency

Symmetry

Occlusion (70 points)

Transverse dimension

Skeletal

Dental

Anteroposterior dimension

Skeletal

Dental

Vertical dimension

Skeletal

Dental

Alignment and crowding

Diagnosis (10 points)

Treatment Objectives (10 points)

Numerical Grade: _____ (Numerical grade of 90 or above = pass)

Pass _____ Signature of instructor _____

Fail _____ Date _____

Evaluation Criteria for the Orthodontic Competency Examination

Students will be evaluated in the ability to manage malocclusion in the following areas: Profile evaluation, occlusion in the transverse dimension, occlusion in the anteroposterior dimension, occlusion in the vertical dimension, alignment and crowding, diagnosis of the malocclusion, etiology of the problem, treatment or referral.

Students are encouraged to perform as many orthodontic screenings as possible prior to taking the Clinical Competency Examination. Points are awarded for each of the above areas of evaluation. A total of 90 points or above is considered a passing grade. Students who fail to pass the examination are required to perform a minimum of 5 orthodontic screenings prior to re-taking the examination.

Pass	<ul style="list-style-type: none"> ▪ Correctly identify the patient's profile in terms of facial convexity, maxillary position, mandibular position, nasolabial angle, vertical proportion, lip competency and symmetry ▪ Correctly identify any skeletal and dental problems in the transverse dimension ▪ Correctly identify any skeletal and dental problems in the anteroposterior dimension ▪ Correctly identify any skeletal and dental problems in the vertical dimension ▪ Correctly identify any alignment and crowding problems ▪ Correctly formulate a diagnosis for the case ▪ Correctly identify the etiology of the malocclusion ▪ Correctly determine whether patient should be treated in a dentist's office or refer to a specialist for consultation
Fail	<ul style="list-style-type: none"> ▪ Fail to identify problems in the transverse dimension

	<ul style="list-style-type: none"> ▪ Fail to identify problems in the anteroposterior dimension ▪ Fail to identify problems in the vertical dimension ▪ Fail to correctly respond to multiple other areas
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PROGRESS REPORT
Clinical Course Deficiency

Student

Orthodontics/Dentistry 785 Clinical Orthodontics

Department/division and Course Number

Areas of Deficiency

Number of screening procedures performed: _____

Patients not seen regularly: _____

Progress grade: _____

Required Correction

Students who receive a progress grade of "F" must contact the department chair (Dr. Peter Ngan) within one week of receiving this notification.

Name of Course Director

Date

NAME: _____

DATE: _____

Student self assessment: _____

Posterior Tooth #: _____

PFM or CCC Tooth Preparation Clinical Performance Assessment/ 789

Rating	Occlusal Reduction	Axial Reduction	Margins and walls finish
--------	--------------------	-----------------	--------------------------

ACCEPTABLE

4	<ul style="list-style-type: none"> ▪Optimal occlusal clearance ▪Optimal cusps position ▪occlusal anatomy maintained 	<ul style="list-style-type: none"> ▪6 to 10 degrees taper of opposing walls ▪No undercuts walls ▪Optimal reduction ▪Auxiliary retention as needed ▪Adjacent teeth untouched 	<ul style="list-style-type: none"> ▪Optimal margin width ▪Margins on sound tooth structure and positioned according to Tx plan ▪Margins well defined ▪smooth line angles ▪All walls and margins smooth and continuous
3	<ul style="list-style-type: none"> ▪Slightly over reduced ▪Slightly under reduced ▪Slight lost of anatomical form 	<ul style="list-style-type: none"> ▪Slightly overtapered ▪Slightly overreduced ▪No undercut walls ▪ slight lack of retention 	<ul style="list-style-type: none"> ▪Margins slightly over reduced ▪Margins slightly under reduced ▪ Slight roughness of walls or margins
2	<ul style="list-style-type: none"> ▪Moderately overreduced ▪Moderately underreduced ▪ Moderate loss of anatomical form 	<ul style="list-style-type: none"> ▪Moderately overtapered ▪Moderately overreduced ▪No taper of walls ▪Adjacent teeth roughened but not notched 	<ul style="list-style-type: none"> ▪ Margins Moderately overreduced ▪ Margins Moderately underreduced ▪ Moderate roughness of walls or margins

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CRITICAL ERRORS

1	<ul style="list-style-type: none"> ▪Decidedly overreduced ▪Decidedly underreduced ▪No anatomical form 	<ul style="list-style-type: none"> ▪Decidedly undercut ▪Decidedly overreduced ▪Decidedly underreduced ▪Decidedly overtapered ▪Minor damage to adjacent teeth 	<ul style="list-style-type: none"> ▪Margins on restoration material, caries or decalcification ▪Contact not broken ▪Decidedly rough walls and margins ▪Decidedly overreduced or underreduced margins
0	<ul style="list-style-type: none"> ▪ grossly over or underreduced 	<ul style="list-style-type: none"> ▪Grossly over or underreduced ▪Gross mutilation of adjacent teeth tissue 	<ul style="list-style-type: none"> ▪Grossly underreduced or Overreduced margins ▪Gross mutilation of soft tissue

PREP

REST

A. _____

A. _____

B. _____

B. _____

PASS

FAIL

NAME: _____

DATE: _____

Student self-assessment: _____ Posterior Tooth#: _____

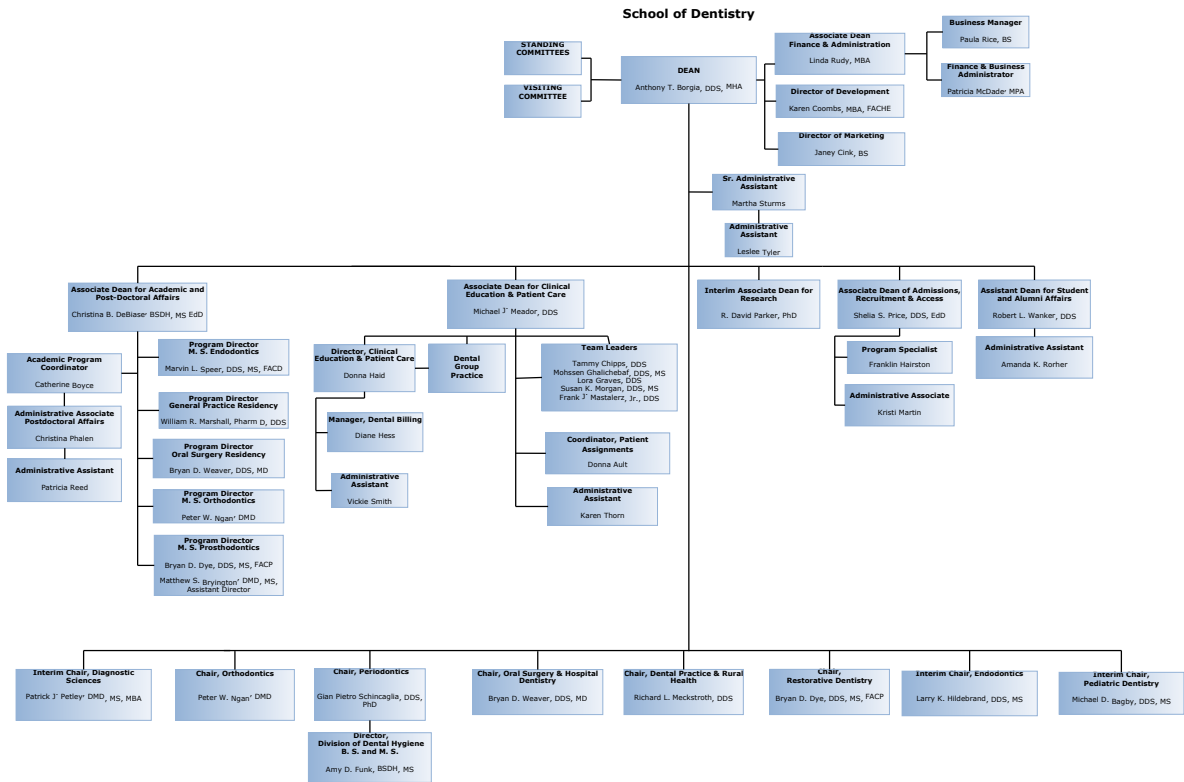
Provisional Restoration Clinical Performance Assessment/ 789

Rating	Surface/Aesthetics	Marginal Integrity	Occlusal Anatomy and Function	Axial Contours, Enembrasures, Proximal Contacts
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ACCEPTABLE

4	<ul style="list-style-type: none"> •Surface uniformly smooth and finished •Acceptable shape, surface 	<ul style="list-style-type: none"> •Tooth restoration junction scarcely or not detectable 	<ul style="list-style-type: none"> •Functional contact and anatomy restored for convenience •No prematurities or Interferences 	<ul style="list-style-type: none"> •Proper axial contour and proximal contact restored •Embrasure form restored •Good internal adaptation
3	<ul style="list-style-type: none"> •Slightly rough or lacking finish •Needs minor reshaping 	<ul style="list-style-type: none"> •Slight detectable margins •Restoration margins slightly under-extended or overextended but closed 	<ul style="list-style-type: none"> •Slightly undercontoured anatomical form •Slightly overcontoured anatomical form •Occlusal contact slightly light or heavy relative to adjacent teeth 	<ul style="list-style-type: none"> •Slightly undercontoured axial form, line angle flattened •Slightly overcontoured axial form, line angle over accentuated •Proximal contact slightly light or heavy
2	<ul style="list-style-type: none"> •Needs surface characterization •Needs moderate reshaping •Minor damage to adjacent tissue 	<ul style="list-style-type: none"> •Moderately detectable margins •Restoration margins moderately underextended or overextended but closed 	<ul style="list-style-type: none"> •Moderately undercontoured anatomical form (flat) •Moderately overcontoured anatomical form •Occlusal contact moderately light or heavy relative to adjacent teeth 	<ul style="list-style-type: none"> •Moderately undercontoured axial form •Proximal contact visually closed by moderately light •Floss shreds in proximal contact

CRITICAL ERRORS				
1	<ul style="list-style-type: none"> ▪Pitted or decidedly rough surface 	<ul style="list-style-type: none"> ▪Decidedly detectable margins ▪Restoration margins decidedly under-extended or overextended ▪Open margins 	<ul style="list-style-type: none"> ▪Decidedly undercontoured anatomical form ▪Decidedly overcontoured anatomical form ▪Decidedly light or heavy occlusal contacts 	<ul style="list-style-type: none"> ▪Decidedly under-contoured axial form (large embrasures) ▪Decidedly over-contoured axial form (small embrasures) ▪Floss will not pass through contact ▪Poor internal adaptation
0	<ul style="list-style-type: none"> ▪Grossly pitted or rough surface 	<ul style="list-style-type: none"> ▪Gross overfinish ▪Gross overhang ▪Open margin; can be penetrated with explorer 	<ul style="list-style-type: none"> ▪Traumatic occlusion ▪No occlusal contact when contact is possible 	<ul style="list-style-type: none"> ▪Grossly under-contoured axial form (large embrasures) ▪Decidedly over-contoured axial surfaces (tissue impingement) ▪Open proximal Contact



Suggestions for 2017 CODE National Agenda

Does your school have guidelines as to when amalgam vs composite restorations are placed?

What is the protocol for placement of composite restorations when the proximal box is apical to the CEJ (lack of enamel at the gingival margin) / subgingival?

In your school do students practice on each other as part of preparation for clinical experiences?

What types of procedures do students practice on each other?

Extra / Intraoral Examination?

Perio probing?

Alginate impressions?

Photography?

Radiographs?

Local Anesthesia?

Prophy?

Is passing NBDE1 a requirement for entry into clinics?

Is passing NBDE2 a requirement for graduation?

Will this policy change when INBDE is in place?

Please return all completed enclosures to:

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director

Associate Professor and Chair
Department of General Dental Sciences
Marquette University School of Dentistry
1801 W. Wisconsin Ave.
Rm 336C
Milwaukee, WI 53233

414.288.5409
gary.stafford@mu.edu

Deadline for return: 30 days post-meeting

Please send the requested documents via email with attachments



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

Regional Meeting Reporting/National Meeting Information

The 2016 National Agenda was established after a review of the suggestions contained in the reports of the 2015 Fall Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas were reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect as to what has changed and the response/action taken and/or the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending a Regional Meeting is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to timely publication of the National Annual Report.

Continue to invite your colleagues, Dental Licensure Board examiners, and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings. The strength of the organization lies in its membership.

Each Region should select next year's meeting site and date/tentative date during your Fall Regional CODE meeting so this information may be published in the Annual National Report and on the CODE website.

The Regional meeting reports are to be submitted to the National Director in **publishable format** as an email attachment.

The required format and sequence will be:

- 1. CODE Regional Meeting Report Form***
- 2. CODE Regional Attendees form***
- 3. Summary of responses to the National Agenda**
- 4. Individual school responses to the National Agenda**
- 5. The Regional Agenda summary and responses**

*(copies may be obtained from the CODE website: www.unmc.edu/code or within this document)

Send an electronic copy of the final regional report via an email attachment to the National Director (gary.stafford@mu.edu) within thirty (30) days of the meetings conclusion.

National CODE Meeting:

The meeting will be held Thursday, February 23rd, 2017 from 5:00 – 6:00 pm at the Drake Hotel, 140 East Walton Place, room TBA in Chicago, IL. Any member who would like to present or who has suggestions for speakers should contact the National Director for more information.

2017 ADEA Section on Operative Dentistry and Biomaterials Meeting:

The meeting will be held during the ADEA Annual Session & Exhibition, March 18-21, 2017 in Long Beach, CA.

National Directory of Operative Dentistry Educators:

The CODE National Director maintains the National Directory of Operative Dentistry Educators as a resource for other dental professionals. It is critically important that this information be as current as possible.

You may update your university's directory listing on the CODE website at www.unmc.edu/code or by sending an email directly to the National Director at gary.stafford@mu.edu.

In an effort to keep the National Directory up to date, please have each school in your Region update the following information:

1. *School name and complete mailing address*
2. *Individual names: (F/T Faculty), phone number and email address of F/T Faculty who teaches operative dentistry.*
 - a. This could be individual's who teach in a comprehensive care program, etc... if there is no defined operative section of the department.

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete National Directory and publishing the Annual National Report in a timely fashion.

All my best,

Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director
Associate Professor and Chair
Department of General Dental Sciences
Marquette University School of Dentistry
1801 W. Wisconsin Ave.
Rm 336 C
Milwaukee, WI 53233
414.288.5409
gary.stafford@mu.edu

2016 National Agenda

In Attendance: NYU, Penn, Stonybrook, Harvard, Boston, Toronto, Touro, Howard, Maryland, Rutgers, Dalhouse, Temple, CDCA representatives

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO: Dalhouse, Howard, Rutgers

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses? **All planned to try in the future**

i. What System?

b. How soon?

2. YES: NYU, Penn, Harvard, Maryland, Stonybrook, Temple, Toronto, Touro, Boston, and Tufts

a. Which courses? **Most: Fixed Pros CAD/CAM; Harvard claimed use for Operative**

b. What System? **Multiple systems; mostly Cerac, E4D, True Definition**

c. How long have you been using a CAD/CAM System? **Schools reported use between 5 years and 20 years**

d. How are you using CAD/CAM in your pre-clinical courses? **Schools reported use for fixed pros and indirect restorations. Only one school reported use for Operative dentistry for grading.**

e. What are the prerequisites for its use? **Lecture/hands on training**

f. When do students get to use it? **Most: Fixed Pros courses**

g. Who provides supervision? **Preclinical Faculty/designated person**

h. What training did they receive? **Schools provide In service training**

ii. Are you using CAD/CAM in your clinical courses?

1. NO: schools listed above

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES: schools listed above except Tuoro

a. Which courses? **D3 and D4 clinical experiences**

b. What System? **Mostly Cerac, E4D, True Definition**

- c. How long have you been using a CAD/CAM System? **Schools reported use between 5 years and 20 years**
 - d. How are you using CAD/CAM in your clinical courses? **Schools reported use for fixed pros and indirect restorations.**
 - e. What are the prerequisites for its use? **All schools reported training in preclinical setting first**
 - f. When do students get to use it? **D3 and D4; some schools mandate a certain amount of procedures**
 - g. Who provides supervision? **Trained designated faculty**
 - h. What training did they receive? **Faculty training provided by designated CAD/CAM faculty**
 - iii. Are you using virtual reality haptic feedback training?
 - 1. **NO: Dalhouse, Harvard (used to), Howard, Maryland, NYU, Rutgers, Stonybrook, Temple, Toronto, Touro**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **Stonybrook, Rutgers and Toronto reported they are interested**
 - i. What System? **Simodont**
 - b. How soon?
 - 2. **YES: Only UPenn reports use**
 - a. Which courses? **UPenn: D1 Manual Dexterity; D1 Operative Dentistry; D2 Fixed Pros**
 - b. What System? **UPenn: Currently Simodont**
 - c. How long have you been using Virtual Reality Haptic Feedback Training? **UPenn: Since 2001 (DentSim 2001-2012) Simodont (2012-currently)**
 - d. Who provides supervision? **UPenn: Faculty**
 - i. What training did they receive? **UPenn: Training from Moog and other schools using the system in Europe**
 - ii. What System? **UPenn: Simodont**
 - iii. How is it being used? **UPenn: Embedded into the curriculum to teach Manual Dexterity, Cariology, Crown preparations**
 - e. Is it efficacious? **UPenn: Yes; Pilot/Validation study with pre training tests and post training tests showed improvement after training**
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?

1. **NO: Dalhouse, Howard, Rutgers**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 2. **YES: NYU, Penn, Harvard, Maryland, Stonybrook, Temple, Toronto, Boston, and Tufts**
 - a. What System? 3M True definition – **all answers as above for CAD/CAM**
 - b. How long have you been using a Digital Impression System?
 - c. What are the prerequisites for its use?
 - d. When do students get to use it?
 - e. Who provides supervision?
 - f. What training did they receive?
- v. Are you using 3D printing for any pre-clinical or clinical application?
1. **NO: All schools reported no use**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? Unsure at this time
 - b. What System?
 - c. How soon?
 2. **YES: NO SCHOOLS**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
- vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. **ALL SCHOOLS:**
Answered: Selecting champion faculty and providing In service training

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class?

Dalhouse: 38 D1, 38 D2, 50 D3, 50 D4

Harvard: 35 D1, 35 D2, 35 D3, 35 D4

Howard: 75 D1, 75 D2, 75 D3, 75 D4

Maryland: 134 D1, 134 D2, 134 D3, 134 D4

NYU: 380 D1, 380 D2, 390 D3, 390 D4

Penn: 125 D1, 125 D2, 158 D3, 158 D4

Rutgers: 90 D1, 90 D2, 125 D3, 125 D4
Stonybrook: 44 D1, 44 D2, 44 D3, 44 D4
Temple: 140 D1, 140 D2, 148 D3, 148 D4
Toronto: 95 D1, 95 D2, 120 D3, 120 D4
Touro: 110 D1
Tufts: 208 D1, 208 D2, 208 D3, 208 D4

ii. What are your normal hours per clinical session?

Dalhousie: am session: 3 hours; pm session: 3 hours
Harvard: am session: 4 hours; pm session: 4 hours
Howard: am session: 3 hours; pm session: 3 hours
Maryland: 2.5 hour sessions; 2 evenings available
NYU: Five 2 hour sessions; evenings available
Penn: D3: am session: 3 hours; pm session: 4 hours;
D4: am session: 4 hours; pm session: 4 hours;
evenings available
Rutgers: am session: 3 hours; pm session: 3 hours
Stonybrook: am session: 3 hours; pm session: 3 hours
Temple: am session: 3 hours; pm session: 3 hours
Toronto: am session: 3 hours; pm session: 3 hours
Tufts: am session: 3 hours; pm session: 2.5 hours;
4 evenings available

How are your clinical groups set-up?

Dalhousie: no particular grouping of students; all at one time;
randomly assigned
Harvard: no particular grouping of students; all at one time;
randomly assigned
Howard: 5 groups assigned since D1; alphabetically assigned
Maryland: 8 groups assigned since D1; randomly assigned
NYU: 12-14 groups assigned since D1; randomly assigned
Penn: 12 groups; randomly assigned
Rutgers: small group setting, groups randomly assigned
Stonybrook: no particular grouping of students; all at one time;
randomly assigned
Temple: 4 “clusters” or groupings; randomly assigned
Toronto: no particular grouping of students; all at one time;
randomly assigned
Tufts: 6 groups, randomly assigned

iii. How do your clinical groups function?

Dalhousie: Groups rotate in “Discipline” blocks; not comprehensive care groups with designated faculty to these disciplines

Harvard: Comprehensive care groups; Session leaders

Howard: Groups rotate in “Discipline” blocks; not comprehensive care groups with designated faculty to these disciplines

Maryland: Comprehensive care groups; Group Directors, Asst. Directors, faculty; with multi disciplined faculty on the clinic floor

NYU: Comprehensive care groups; Group Directors, Asst. Directors, faculty; with multi disciplined faculty on the clinic floor

Penn: Comprehensive care groups; Group Leaders and assigned faculty; with multi disciplined faculty on the clinic floor; separate specialty clinics for Endo and Oral Surgery

Rutgers: 4 Comprehensive care groups; Group Director and faculty

Stonybrook: All students on the floor; Discipline dictated by the specific day; D3 Director; D4 Director; multi disciplined faculty on the clinic floor

Temple: 4 Comprehensive care clusters; Faculty/mentors per cluster

Toronto: All students on the floor; Comprehensive care; multi disciplined faculty on the clinic floor

Tufts: Comprehensive care groups; Group Director and assigned faculty; with multi disciplined faculty on the clinic floor

Note: many schools now have group or practice administrators that make the student appointments for them.

iv. How long have you had your current structure? **Schools reported between 3 and 20 years for these systems that are in place**

v. Do you plan on changing in the near future? **No future changes reported**

c. **Screening**

i. How are patients screened for acceptance into your pre-doctoral program? All schools reported having a specific **Admissions/Diagnosis clinic**

1. Provide numbers screened and yield if available **Not reported**

ii. Are you having difficulty finding suitable patients? **Most schools reported facing some challenges at some point, not consistently**

iii. If so, what are the main reasons? **Not reported**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? **All Schools: FI rinses or FI varnish dependent on risk**
 1. Do you use Carbamide Peroxide for caries control? **All Schools: No**
 2. Do you use Sodium Diamine Fluoride for caries control? **Meant to say: Silver Diamine Fluoride???** **All Schools No-Not in main clinic; some do in Pedo**
- ii. What evidence do you have to support your use/non-use? **Not reported**

b. Caries Removal

- i. Do you teach total or partial caries removal? **All schools: Reported caries removal should be complete everywhere except which is directly in very close proximity to the pulp, at which time, an indirect pulp cap procedure should be done.**

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **All Schools: No**
- ii. Do you use bulk fill composite resin clinically? **All Schools: No**
- iii. Which material(s) do you use? **Multiple materials. Predominantly: Filtek Supreme, TPH, EsthetX, one school used P60**
- iv. What is your preferred technique for use? **All Schools: Incremental placement/Layered placement technique is taught**
- v. What evidence do you have to support your use/non-use? **Current, best research used as evidence**

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? **Not reported**
 - Dalhousie: Has a rubric they use; graded 3, 2, 1, 0 system**
 - Harvard: Has a rubric they use; numerical grades given and A-F**
 - Howard: Has a rubric they use; grades given Pass/Fail**
 - Maryland: Has a rubric they use; numerical grades given and A-F**
 - NYU: Has a rubric they use; grades given Honors/Pass/Fail**
 - Penn: Has a rubric they use; grades given Honors/Pass/Fail**
 - Rutgers: Has a rubric they use; numerical grades given and A-F**
 - Stonybrook: Has a rubric they use**
 - Temple: Has a rubric they use**

Toronto: Has a rubric they use; grades given Honors/Pass/Needs Improvement

Tufts: Has a rubric they use; grades given Honors/Pass/Fail

Are students evaluated (graded) on their daily clinical procedures?

Dalhousie: No

Harvard: Yes

Howard: No

Maryland: Yes

NYU: No

Penn: Yes

Rutgers: No

Stonybrook: Yes

Temple: Yes

Toronto: Yes

Tufts: Yes

1. If so, what metrics or methods are used? **Multiple were discussed, but none in detail.**

ii. Provide Rubrics if available. **No specific rubrics were provided**

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 1. Who sits on this Council, Committee, Board? **Not reported; the group found this section too various to discuss**
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

VI. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media? **Not reported by many schools; 2 schools reported incidents. All schools agreed there is a need for a strict, University Level policy for our institutions to follow.**
 1. ex...the use of patient photos on Facebook
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities? **All schools reported Ethics Courses, Honor Codes, or Codes of Conducts at their institutions.**
- iii. What specific rules/guidelines do you have in place? **All Schools: Outlined in Honor Codes and/or Codes of Conduct document**

Regional Meeting Report Form

Region:

Host University, Address, and Dates of 2016 Regional Meeting:

Host University	Address	Dates of Meeting
NYU	433 1 st Ave, NY, NY	Sept 28 and 29, 2016

Chairperson and Contact Information for 2016 Regional Meeting:

Chairperson	University/Address	Phone/email
James Kaim	433 1 st Ave, NY, NY	Jmk2@nyu.edu

List of Attendees: (Please complete CODE Regional Meeting Attendees Form on the following page

Contact Person, Host University, and Dates of 2017 Regional Meeting:

Contact Name Phone/email	Host University/Address	Dates of Meeting
NYU	433 1 st Ave, NY, NY	Sept 28 and 29, 2016

Regional Meeting Attendee's Form

Name	University	email
Jim Kaim Mark Wolff	NYU	jmk2@nyu.edu mark.wolff@nyu.edu
Margrit Maggio	University of Pennsylvania	mmaggio@upenn.edu
Kenneth Boberick	Temple University	kboberick@dental.temple.edu
Ann Botta Bonnie Lipow Andrew Schwartz	Stonybrook	bonnie.lipow@stonybrookmedicine.edu andrew.schwartz@stonybrookmedicine.edu
Chutinan Supattiva Hiroe Ohyama	Harvard	Supattriya_Chutinan@hsdm.harvard.edu Hiroe_ohyama@hsdm.harvard.edu
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Seth Sachin	Dalhousie	sachin.seth@dal.ca
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Please return all completed enclosures to:

**Gary L. Stafford DMD
Consortium of Operative Dentistry Educators (CODE)
National Director**

**Associate Professor and Chair
Department of General Dental Sciences
Marquette University School of Dentistry
1801 W. Wisconsin Ave.
Rm 336C
Milwaukee, WI 53233**

**414.288.5409
gary.stafford@mu.edu**

Deadline for return: 30 days post-meeting

Please send the requested documents via email with attachments



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

2016 National Agenda

UNIVERSITY OF LOUISVILLE

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses? **YES**

1. **NO**

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. **YES**

a. Which courses? **Pre-clinical FPD**

b. What System? **E4D and E4D Compare**

c. How long have you been using a CAD/CAM System? **2 years**

d. How are you using CAD/CAM in your pre-clinical courses?

Scanning single unit crown preparations

e. What are the prerequisites for its use? **Students receive a training session then hands on practice**

f. When do students get to use it? **D2 year**

g. Who provides supervision? **Preclinical FPD Course Director**

h. What training did they receive? **Didactic followed by hands on training.**

ii. Are you using CAD/CAM in your clinical courses? **No**

1. **NO**

a. Do you plan on incorporating CAD/CAM clinically? **Yes**

i. What System? **E4D**

b. How soon? **This year**

2. **YES**

a. Which courses?

b. What System?

c. How long have you been using a CAD/CAM System?

d. How are you using CAD/CAM in your pre-clinical courses?

e. What are the prerequisites for its use?

f. When do students get to use it?

g. Who provides supervision?

h. What training did they receive?

iii. Are you using virtual reality haptic feedback training? **No**

1. **NO**

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **No**
 - i. What System?
 - b. How soon?
 - 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses? **No**
 - 1. **NO**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses? **Yes**
 - b. What System? **E4D**
 - c. How soon? **This year**
 - 2. **YES**
 - a. What System?
 - b. How long have you been using a Digital Impression System?
 - c. What are the prerequisites for its use?
 - d. When do students get to use it?
 - e. Who provides supervision?
 - f. What training did they receive?
- v. Are you using 3D printing for any pre-clinical or clinical application? **No**
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? **No**
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?

- f. Who provides supervision?
 - g. What training did they receive?
 - vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.
 - b. **Clinical Organizational Structure**
 - i. How many pre-doctoral students do you have per class? 120 students per DMD class.
 - ii. What are your normal hours per clinical session? 3 hours/clinic session; 9:00a.m. – 12:00p.m. and 2:00 – 5:00p.m.
 - iii. How are your clinical groups set-up? Each class of 120 students are divided into 3 groups of 40 and further subdivided into 2 smaller groups of 20 with a Group Manager in charge of each smaller group of 20 students. The D3s are Group A1 and A2, B1 and B2, C1 and C2. The D4 Groups are D1 and D2, E1 and E2, and F1 and F2. We are currently evaluating the possibility of combining the D3 and D4 subgroups and having a combination of D3 and D4 students with no designation of D3 or D4 group manager assignment, only Group Manager. This may contribute to better continuity of care for the patients.
 - iv. How do your clinical groups function? Each Group functions as a large group practice with two-3 hour sessions daily, Monday – Friday.
 - v. How long have you had your current structure? Approximately 10 years
 - vi. Do you plan on changing in the near future? Possibly with the integration of D3 and D4 Groups.
 - c. **Screening**
 - i. How are patients screened for acceptance into your pre-doctoral program? Patients are screened through our Admissions Clinic, occasionally through the Emergency Clinic, sometimes as Group screening sessions and sometimes mass screening sessions.
 - 1. Provide numbers screened and yield if available Admissions Clinic~ 50 patients/week; this number has been boosted to as many as 144 patients/week during Group screening sessions.
 - ii. Are you having difficulty finding suitable patients? Yes, many of our patients are older, medically and/or dentally too complex for the DMD program. Many other patients can't afford even the reduced fees at our school.
 - iii. If so, what are the main reasons? Location, fees, parking and continued construction.

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? **Prevident, MI paste, Cervitec Plus –chlorhexadine varnish, Colgate 5% Na Fluoride varnish**
 - 1. Do you use Carbamide Peroxide for caries control? **No**
 - 2. Do you use Sodium Diamine Fluoride for caries control? **No**
- ii. What evidence do you have to support your use/non-use? **We will look at these once our preventive dentistry curriculum gets up to speed. Also, the implementation of CAMBRA is underway for CRA.**

b. Caries Removal

- i. Do you teach total or partial caries removal?

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically?
No
- ii. Do you use bulk fill composite resin clinically?
No
- iii. Which material(s) do you use?
N/A
- iv. What is your preferred technique for use?
N/A
- v. What evidence do you have to support your use/non-use?

According to literature, conventional composite is equivalent to or better than bulk-fill:

Orłowski M, Tarczydło B, Chałas R. Evaluation of marginal integrity of four bulk-fill dental composite materials: in vitro study. Scientific World Journal. 2015;2015:701262.

The aim of the study was to compare under in vitro conditions marginal sealing of 4 different bulk-fill materials composite restorations of class II.

Comparative evaluation concerned 4 composites of a bulk-fill type: SonicFill, Tetric EvoCeram Bulk Fill, Filtek Bulk Fill, and SDR.

The highest rating (score 0, no dye penetration) was achieved by 93.33% of the restorations made of the SDR material, 90% of restorations of SonicFill system, 86.66% of restorations of the composite Filtek Bulk Fill, and 73.33% of restorations of the Tetric EvoCeram Bulk Fill.

CONCLUSION:

The performed study showed that bulk-fill flowable or sonic-activated flowable composite restorations have better marginal sealing (lack of discoloration) in comparison with bulk-fill paste-like composite.

Campos EA, Ardu S, Lefever D, Jassé FF, Bortolotto T, Krejci I. Marginal adaptation of class II cavities restored with bulk-fill composites. *J Dent*. 2014 May;42(5):575-81.

All specimens were submitted to 240,000 occlusal loading and simultaneous 600 thermal cycles in water at 5°C and 50°C. The bulk-fill composites exhibited adequate marginal adaptation and similar to the results of the standard composite.

van Dijken JW, Pallesen U. A randomized controlled three year evaluation of "bulk-filled" posterior resin restorations based on stress decreasing resin technology. *Dent Mater*. 2014 Sep;30(9):e245-51.

The objective of this randomized controlled prospective clinical trial was to evaluate the efficacy of a flowable resin composite (SDR) bulk fill technique in posterior restorations and to compare it intraindividually with a conventional 2 mm resin composite curing technique in a 3-year follow up. The 4 mm bulk-fill technique with the flowable resin composite SDR showed highly clinical effectiveness, which was comparable during the 3-year follow-up with the 2mm resin composite layering technique.

Colak H, Ercan E, Hamidi MM. Shear bond strength of bulk-fill and nano-restorative materials to dentin. *Eur J Dent*. 2016 Jan-Mar;10(1):40-5.

Bulk-fill composite materials are being developed for preparation depths of up to 4 mm in an effort to simplify and improve the placement of direct composite posterior restorations. The aim of our study was to compare shear-bond strength of bulk-fill and conventional posterior composite resins.

Total-etch dentine bonding system (Adper Scotchbond 1XT, 3M ESPE) was applied to dentin surface in all the groups to reduce variability in results. Then, dentine surfaces covered by following materials. Group I: SonicFill Bulk-Fill, Group II: Tetric EvoCeram (TBF), Group III: Herculite XRV Ultra, and Group IV: TBF Bulk-Fill, 2 mm × 3 mm cylindrical restorations were prepared by using application apparatus.

The highest value was observed in Group III (14.42 ± 4.34) and the lowest value was observed in Group IV (11.16 ± 2.76) and there is a statistically significant difference between these groups ($P = 0.046$). However, there is no statistically significant difference between the values of other groups. In this study, Group III was showed higher strength values.

CONCLUSION:

There is a need for future studies about long-term bond strength and clinical success of these adhesive and bulk-fill systems.

Kapoor N, Bahuguna N, Anand S. Influence of composite insertion technique on gap formation. *J Conserv Dent*. 2016 Jan-Feb;19(1):77-81.

To compare newer bulk-fill composites with an incrementally filled composite for adaptability and subsequent gap formation at the pulpal floor.

Class I cavities were prepared in 60 intact molars, with a shallow depression in the center of the pulpal floor. The samples were divided into four groups (n = 15), according to the material used; smart dentine replacement (SDR), SonicFill, Ever X Flow and Z350 XT, restored to a depth of 4 mm. Following thermocycling, samples were sectioned buccolingually and examined under a stereomicroscope. SDR showed the significantly best adaptability as compared to both SonicFill and Ever X Flow (comparable). However, significantly least adaptive capacity was seen in the incrementally filled group (Z350 XT).

CONCLUSION:

Bulk-fill composites performed better than incremental composites, demonstrating better adaptability and less gap formation at the pulpal floor.

Behery H, El-Mowafy O, El-Badrawy W, Saleh B, Nabih S. Cuspal Deflection of Premolars Restored with Bulk-Fill Composite Resins. *J Esthet Restor Dent*. 2016 Mar-Apr;28(2):122-30.

This in vitro study compared cuspal deflection of premolars restored with three bulk-fill composite resins to that of incrementally-restored ones with a low-shrinkage silorane-based restorative material.

Prepared teeth were then equally divided into four groups (n = 10) and each group was assigned to one of four composite resin (QuiXX, Dentsply; X-tra fil, Voco; Tetric EvoCeram Bulk Fill, Ivoclar Vivadent; low-shrinkage Filtek LS, 3M/ESPE). Adper Single Bond-Plus, 3M/ESPE was used with all bulk-fill restoratives. LS-System Adhesive, 3M/ESPE was used with Filtek LS. For each prepared premolar, cuspal deflection was measured in microns as the difference between two readings between reference points before and after restoration completion. Means and SDs were calculated and data statistically-analyzed using One-way ANOVA and Tukey's test.

Filtek LS showed the lowest mean cuspal deflection value 6.4(0.84)µm followed by Tetric EvoCeram Bulk Fill 10.1(1.2) µm and X-tra fil 12.4(1.35)µm, while QuiXX showed the highest mean 13(1.05)µm.

CONCLUSIONS:

Tetric EvoCeram Bulk Fill had significantly lower mean cuspal deflection compared with the two other bulk-fill composite resins tested. Filtek LS had the lowest significant mean cuspal deflection in comparison to all tested bulk-fill restoratives.

CLINICAL SIGNIFICANCE:

The use of Tetric EvoCeram Bulk fill composite resin restorative for class II MOD cavities resulted in reduced cuspal deflection in comparison to the two other bulk-fill composite resins tested. The silorane-based Filtek LS restorative resulted in the least cuspal deflection in comparison to all tested bulk-fill composite restoratives.

IV. **Student Assessment**

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

Preclinical Operative I: The course has a sign-off Sheet for daily exercises that includes faculty signatures for preparation, matrix, restoration, and finish. Daily sign-offs do not contribute to the grade but are mandatory to receive a course grade. There are 4 competency exams that make up the course grade. Three exams include a prep and restoration and are completed in 2 hours 45 minutes. One exam includes two preparations and is completed in the same time frame.

Competency Exam 1 (Amalgam)

20-MO Prep, # 29-MO Restore

Competency Exam 2 (Composite)

20-MO Prep, # 29-MO Restore

Competency Exam 3 (Composite)

5-MOD Prep, # 12-MOD Restore

Competency Exam 4

8-ML Prep, # 8-Class V Prep

Preclinical Operative II: This is an assessment course for students to earn privileges to treat clinical patients. Students get 3 hours to complete direct restorations on various clinical scenarios where auxiliary retention is needed to have a successful restoration. Students learn to self-assess individual performances and get immediate feedback as they progress through the operative dentistry procedure.

#2 MODFL amalgam, #4 MODL amalgam, #8 DIFL composite, #13 DO composite, # 14MOL amalgam, #19 DOL composite and #30 MODL amalgam.

Clinical Operative Dentistry I: Students are assessed (and self-assess) on the same grade forms as preclinical operative dentistry II. Students get a portfolio where they are expected to progress nicely through their D3 year.

Students are expected to perform at an acceptable level on 12 minimal clinical patient based experiences under formative review and to pass summative class II and III dentoform based competency examinations.

Clinical Operative Dentistry II: Students are assessed (and self-assess) on the same grade forms as preclinical operative dentistry II and clinical operative dentistry I. Students get a portfolio where they are expected to progress nicely from their D3 year through their D4 year. Students are expected to perform at an acceptable level on 20 minimal clinical patient based experiences under formative review and to pass summative two class II's and a class III competency examinations. Two of these are done as part of the D4 clinic examination.

- ii. Are students evaluated (graded) on their daily clinical procedures?
 - 1. If so, what metrics or methods are used? **Yes. The same grading forms are used for preclinical operative dentistry II, clinical operative dentistry I and clinical operative dentistry II for both daily operative procedures and competency examinations. Grading rubric and grading forms are attached.**
- iii. Provide Rubrics if available.
Preclinical rubric attached

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?

The Faculty Assembly is the major decision making body.

Membership:

The membership of the Faculty Assembly of the School of Dentistry shall be composed of all individuals holding academic full time, part time, secondary, term or gratis academic appointments during the current year. Faculty members may serve as a voting member of any standing committee to which they are elected or appointed. All faculty shall be entitled to the normal opportunities, privileges, and obligations of faculty participation in the functions of the School of Dentistry and the University.

Voting at Faculty Assembly meetings shall be restricted to full time faculty members and part time faculty representatives, basic science course directors and dental basic science chairpersons. Part-time faculty representatives will consist of one voting representative for each full-time

equivalent and be elected by the part-time faculty. Any basic science faculty member with a secondary appointment may serve in an elected or appointed position on a committee of the School or Faculty Assembly. Faculty members of the Assembly shall have one vote.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

Dean: 1

Associate Deans: 3

Assistant Deans: 2

Chairs: 6

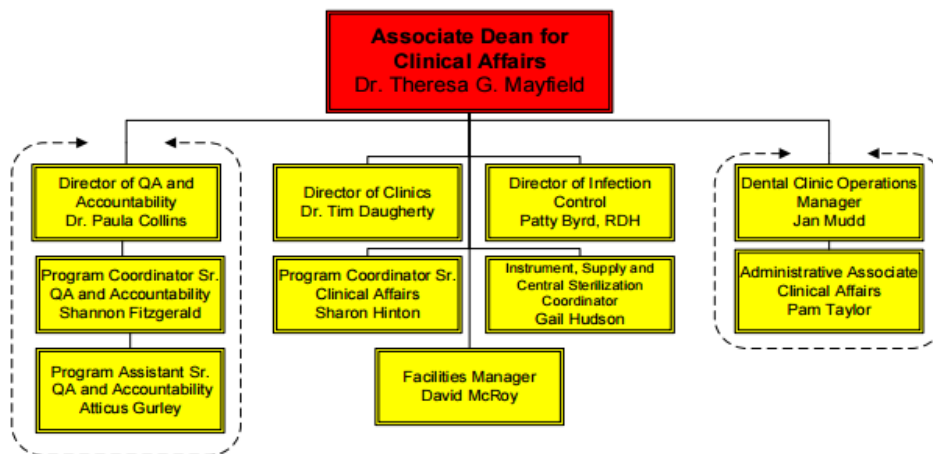
Clinical Discipline Coordinators: 12

Program Directors: 7 (including DH)

- iii. Provide school organizational tree if available.

Organizational diagram is included

For Clinic:



VI. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media? **No**
- ex...the use of patient photos on Facebook

2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities?

During D1 Orientation the Associate Dean for Academic Affairs has a one hour presentation to initially present the academic policies.
The Student Handbook contains the specific policies.

- iii. What specific rules/guidelines do you have in place?

Academic D.M.D. Program Policies

Student Responsibilities

Faculty Responsibilities

Course Requirements/Syllabi

Evaluation and Grading

Determination of Student Status

Criteria for Graduation

Promotion and Clinic Privileges

Determination of Grade Point Average

Criteria for Honors

Early Intervention

"I" (Incomplete) Grades and "X" Grades

"F" Grades

Failure of a course(s)

Criteria for Probation Remediation

Repetition of a Course

Repetition of a Year

Modified Curriculum

Academic Dismissal

Readmission following Withdraw/Dismissal

School of Dentistry Student Appeal Procedures

THE CODE OF PROFESSIONAL RESPONSIBILITY

ULSD Professional Decorum/Dress Code

UofL Code of Student Rights and Responsibilities

UofL CODE OF CONDUCT

Attendance

Student Responsibility

Attendance Monitoring for Comprehensive Care Clinic and Rotations

Prenatal Physician Appointments

Maternity Leave

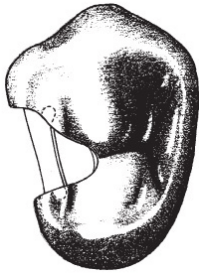
Paternity Leave

Medical Leave of Absence

Administrative Leave of Absence

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).



1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced?

Yes for both. For composite, a slight bevel may be added. However, evidence suggests a bevel may not be needed:

Soliman S, Preidl R, Karl S, Hofmann N, Krastl G, Klaiber B. Influence of Cavity Margin Design and Restorative Material on Marginal Quality and Seal of Extended Class II Resin Composite Restorations In Vitro. *J Adhes Dent.* 2016;18(1):7-16.

One hundred twenty (120) intact human molars were randomly divided into 12 groups, with three different cavity designs: 1. undermined enamel, 2. box-shaped, and 3. proximal bevel.

RESULTS:

After bevel preparation, SEM observations showed that restorations did not exhibit a higher percentage of continuous margin (SEM-analysis; $p > 0.05$), but more leakage was found than with the other cavity designs ($p < 0.05$). The lowest percentage of continuous margin was observed in ELS restorations ($p < 0.05$). More fractured margins were observed in the undermined enamel cavity design groups ($p < 0.05$).

CONCLUSION:

Bevel preparation failed to improve margin quality in large Class II composite restorations and is no longer recommended. However, undermined enamel should be removed to prevent enamel fractures.

Schroeder M, Reis A, Luque-Martinez I, Loguericio AD, Masterson D, Maia LC. Effect of enamel bevel on retention of cervical composite resin restorations: A systematic review and meta-analysis. *J Dent.* 2015 Jul;43(7):777-88.

CONCLUSIONS:

No superiority of bevelled restorations was observed in the short-term follow-up of 1-year, although this conclusion was based on only two RCTs. There is not enough evidence to support the bevelled technique over non-bevelled for NCCLs over longer periods of time. Better

standardization and reporting of RCTs of enamel beveling are necessary in longer-term follow-ups.

CLINICAL SIGNIFICANCE:

The literature still lacks a body of evidence to support the benefits of enamel bevel over non-beveled for longer-term follow-ups, and future randomized clinical trials with low risk of bias should be conducted.

Coelho-De-Souza FH1, Camargo JC, Beskow T, Balestrin MD, Klein-Júnior CA, Demarco FF.A randomized double-blind clinical trial of posterior composite restorations with or without bevel: 1-year follow-up. J Appl Oral Sci. 2012 Mar-Apr;20(2):174-9.

RESULTS:

Beveled and non-beveled cavities performed similarly after 1 year follow-up, regarding to fractures and retention, marginal adaptation, postoperative hypersensitivity, recurrence of caries, surface luster and anatomic form. However, for surface and marginal staining, beveled cavities showed significantly better performance ($p < 0.05$) than butt joint restorations.

CONCLUSIONS:

It was concluded that the restorations were acceptable after 1 year, but restorations placed in cavities with marginal beveling showed less marginal staining than those placed in non-beveled cavities.

2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation?

Yes for both.

Summitt notes that for composite “The preparation tends to be shallower. Because retention is provided through bonding to tooth structure rather than mechanical undercuts, there is no need to penetrate to dentin if the caries lesion does not.”

[My comment (GC) is that there is rarely indication for a preparation if the caries does not reach the DEJ and thus the preparation will almost always extend into the dentin. I understand that our region has argued that retention should not be placed so that the restoration will dislodge if the adhesive fails. I cannot find that supported in the literature.]

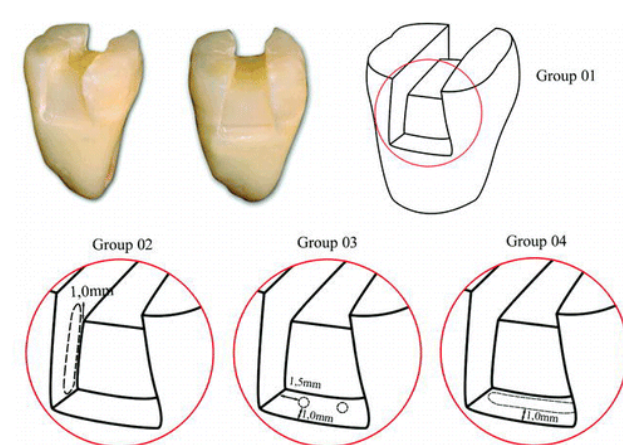
Summitt notes for amalgam: Fig 12-16. (a) Although extension of a Class 2 preparation into occlusal grooves is not usually necessitated by carious tooth structure, if such an extension is already present from a previous restoration of the tooth, it will provide some resistance form for the proximal portion. Note the slight bevel of the axiopulpal line angle as part of the resistance form. (b) An extension without parallel cavosurface margins, however, will not provide the resistance form needed to prevent displacement of the proximal amalgam during mastication, so retention grooves (dotted lines) should be added.

Retention for Class 2 composite and amalgam restorations:

Ishikiriama SK1, Mondelli RF, Kano SC, Ishikiriama A, Mondelli J. Role of additional retention on marginal adaptation and sealing of large resin composite Class II restorations. *Oper Dent.* 2007 Nov-Dec;32(6):564-70.

To compare marginal leakage and gap formation in large resin composite Class II cavities with their gingival margins in cementum, using three different additional retentions in the proximal box: (G1) no retention; (G2) vertical grooves in the buccal and lingual walls; (G3) "pot holes" in the gingival wall and (G4) horizontal grooves in the gingival wall.

All groups with additional retention (G2 = 0.565, G3 = 0.346 and G4 = 0.078) showed fewer gap formations than the control group (G1 = 2.076).



Görücü J1, Tiritoglu M, Ozgünaltay G. Effects of preparation designs and adhesive systems on retention of class II amalgam restorations. *J Prosthet Dent.* 1997 Sep;78(3):250-4.

This study evaluated the effects of three preparation designs and the influence of an adhesive system in Class II amalgam restorations when a load was applied directly to the marginal ridge. Seventy-two sound caries-free maxillary molars were divided into 6 groups of 12 teeth. In groups 1 and 4, the preparation had an extension through the occlusal groove, whereas the other four groups used a proximal slot (box-only) preparation. Groups 2 and 5 had facial and lingual retention grooves that extended from the gingival floor to the occlusal surface, and groups 3 and 6 had slots without grooves. Teeth in groups 1, 2, and 3 were restored with amalgam and groups 4, 5, and 6 were restored with resin bonded amalgam. The marginal ridges of the restorations were loaded at an angle of 13.5 degrees to the long axis of the tooth in an Instron testing machine until failure.

RESULTS:

Analysis of mean failure loads indicated that proximal slot preparations with retention grooves or occlusal extensions were statistically equivalent but significantly greater than proximal slots without grooves. The addition of an adhesive system improved fracture values for all three types of preparations.

Summitt JB1, Della Bona A, Burgess JO. The strength of Class II composite resin restorations as affected by preparation design. *Quintessence Int.* 1994 Apr;25(4):251-7.

This study evaluated the load, applied to the marginal ridge, required to produce failure in Class II posterior composite resin restorations with four different preparation designs. In group 1, the preparation had an extension through the occlusal groove. The other three groups employed a proximal box-only (slot) preparation. Group 2 preparations had facial and lingual retention grooves that extended from the gingival floor to the occlusal surface; group 3 preparations were slots without grooves; and group 4 preparations were slots without grooves and with unsupported proximal enamel. After the restorations were thermocycled, their marginal ridges were flattened and loaded to failure. Mean (SD) failure loads were 438 (73) N in group 1; 383 (52) N in group 2; 297 (72) N in group 3; and 281 (63) N in group 4. Mean failure loads of groups 1 and 2 were not significantly different from each other but were significantly greater than failure loads for groups 3 and 4. Mean failure loads of groups 3 and 4 were not significantly different.

Summitt JB1, Osborne JW, Burgess JO. Effect of grooves on resistance/retention form of Class 2 approximal slot amalgam restorations. *Oper Dent.* 1993 Sep-Oct;18(5):209-13.

This study evaluated in vitro the effectiveness of resistance/retention grooves in box-only (approximal slot) class 2 preparations. Forty-eight sound, caries-free maxillary premolars were distributed equally into four groups of 12 teeth based on faciolingual dimensions. Teeth were mounted vertically, and class 2 mesio-occlusal slot preparations were cut in each tooth. Resistance/retention grooves were placed in three of the four groups with a #1/4 round bur to a depth of 0.3-0.5 mm. Teeth were restored with amalgam and positioned 13.5 degrees from vertical; an area was flattened on each amalgam marginal ridge, and the flattened areas were loaded to failure using an Instron with a rectangular flat-ended rod at a cross-head speed of 1 mm/min. Mean load (SD) to failure of the group using "conventional" grooves extending in dentin from the gingival floor occlusally to near the occlusal DEJ was 196N (46N). For long grooves extending from the gingival floor to the occlusal surface, the mean failure load was 169N (58N). Slot restorations with short resistance/retention grooves or points (0.5-1.0 mm) just gingival to the occlusal DEJ had a mean failure load of 132N (44N). Slot restorations with no grooves had a mean failure load of 69N (46N). ANOVA and Student-Newman-Keuls tests were used for analysis. The no-groove group provided significantly less ($P < 0.01$) resistance than any group with grooves. Approximal slot restorations with "conventional" grooves were significantly more resistant ($P < 0.01$) than those with short grooves but were not significantly more resistant than those with long grooves.

VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses?

Note: Clinical grading form and rubric are included for this answer.

Self-assessment is required in all preclinical courses including dental anatomy and operative dentistry. It is part of the grade sheet which must be completed by the student prior to turning in the practical examination. Clinically, the student is required to self-assess for both competency and non-competency preparations and restorations.

Rubrics: The clinical rubric is more general than the preclinical rubric since the clinical rubric was meant to be general as it has to cover many direct restorative procedures. Measurements of the preparation, where appropriate, are the same for the preclinical and clinical rubrics. The clinical rubrics are for 3-2-0 assessment while the preclinical rubrics are 3-2-1-0 assessment to better permit the establishment of letter grades (A, B, C, and F).

2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram?

Cariology is introduced to our dental students in summer of their D1 year. The course is an introduction to preventive dentistry where students get information on risk factors associated with demineralization and dental caries. They learn to collect data from standardized patients and formulate a preventive treatment plan using a CABRA like form. We are currently developing a CAMBRA course for the spring of the D1 year for students to continually apply the knowledge gained in the introduction course. Students begin charting lesion activity in their D2 introduction to clinical dentistry II course.

DCG

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.

We are currently not using ICDAS as the school. Dr. Metz does have a current research project underway to evaluate clinical experience on the introduction of said diagnostic system.

2. How do others teach material removal, particularly OLD composite?
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations?

Students are taught to remove all existing restorative materials when replacing an old restoration. We currently do not have a grading rubric for the removal and replacement of defective restoration.

3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.

- a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders?

With 120 students in the class, we need to return their dentoforms the following lab session. In order to do this, immediately following the practical exam in preclinical operative dentistry I, the course faculty evaluate those aspects of the exam that pertain to the students' dentoforms (Preparation: breaking proximal contacts, damage to adjacent tooth. Restoration: proximal contact, embrasures, occlusal contacts). These evaluations are noted on the grade sheets. The teeth are then removed from the dentoform and placed in an envelope along with the grade sheet. This permits the dentoforms to be returned the following session. One grader (course director) evaluates all other aspects of the prep and restoration and assigns the overall grade. This is the most consistent method that I know of and has resulted in minimal complaints of unfair, inconsistent grading.

For the preclinical operative dentistry II course, 10 students are assigned to one faculty member who gives them immediate feedback as they progress through the procedure at hand. It is run like a simulated patient clinical experience for 3 hour sessions. The grading forms are the same forms used for clinical patient based examinations. Each faculty member is responsible for assessing their student's competence to enter the clinic to treat out patients. Dr. Metz provides continual and guided calibration to faculty for student assessment.

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall?

Premolars: 1.0-1.25mm or approximately the width of a small hatchet

Molars: 1.5-2.0mm or approximately the width of a large hatchet

2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used?

We do not currently teach basing of direct restorative preparation. We use calcium hydroxide for IPC and DPC is small amounts then covered it with a RMGI lining material.

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use.

We currently do not teach the use of silver diamine fluoride. However, due to the current literature we will be implementing it into our preventive treatment planning.

2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps.

We currently do not use a desensitizing agent under our resin composite restorations.

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?

Preclinical Operative Dentistry I: Ideal class I, II, III and V Dentoform

Preclinical Operative Dentistry II: Large Cusp Replacement Restoration Dentoform

Clinical Operative Dentistry I: Ideal Class II and III Patient Based

Clinical Operative Dentistry II: Ideal Class II (two) and Class III (one) Patient Based

2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry?

No. New D1 dental student learn to wax anatomical form followed by their preclinical operative dentistry course. Students are introduced to their high speed hand pieces on Learn-A-Preps before diving into dentoform tooth preparation to learn depths and angles.

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?

Not currently but we have plans to implement E4D scanning software into the clinics.

- a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
- b. Are students designing restorations?

2. What bonding technique are you currently using for direct operative?

- a. Total etch and wash, generation_5__
- b. Selective etch and wash, generation__
- c. Selective etch and wash, Universal Adhesive
- d. Other
 - i. What evidence have you cited on which to base your choice?

UofL uses Excite F (generation 5) with Tetric EvoCeram resin composite (Ivoclar Vivadent).

Boushell LW, Heymann HO, Ritter AV, Sturdevant JR, Swift EJ Jr, Wilder AD Jr, Chung Y, Lambert CA, Walter R. Six-year clinical performance of etch-and-rinse and self-etch adhesives. Dent Mater. 2016 Sep;32(9):1065-72.

This was a randomized controlled clinical trial where 39 participants met the inclusion/exclusion criteria and were enrolled. The tested adhesive systems presented similar clinical performance after six years of service, with annual failure rates of 2.8%, 4.6%, and 2.0% for Xeno IV, Xeno III, and XP Bond, respectively.

Baracco B, Fuentes MV, Garrido MA, González-López S, Ceballos L. Effect of thermal aging on the tensile bond strength at reduced areas of seven current adhesives. Odontology. 2013 Jul;101(2):177-85.

The purpose of this study was to determine the micro-tensile bond strength (MTBS) to dentin of seven adhesive systems (total and self-etch adhesives) after 24 h and 5,000 thermocycles. Dentin surfaces of human third molars were exposed and bonded with two total-etch adhesives (Adper Scotchbond 1 XT and XP Bond), two two-step self-etch adhesives (Adper Scotchbond SE and Filtek Silorane Adhesive System) and three one-step self-etch adhesives (G-Bond, Xeno V and Bond Force). After 24 h water storage, MTBS values were highest with XP Bond, Adper Scotchbond 1 XT, Filtek Silorane Adhesive System and Adper Scotchbond SE and lowest with the one-step self-etch adhesives Bond Force, Xeno V and G-Bond. After thermocycling, MTBS values were highest with XP Bond, followed by Filtek Silorane Adhesive System, Adper Scotchbond SE and Adper Scotchbond 1 XT and lowest with the one-step self-etch adhesives Bond Force, Xeno V and G-Bond.

Hegde MN, Manjunath J. Bond strength of newer dentin bonding agents in different clinical situations. *Oper Dent*. 2011 Mar-Apr;36(2):169-76.

This study compared the tensile bond strengths of different adhesive systems to different dentinal substrate conditions. The adhesive systems used were Adper Single Bond 2 total etch, XP Bond total etch, and two all-in-one adhesives, Adper Easy One and Xeno V. After being stored for 24 hours in distilled water at room temperature, the specimens were thermocycled for 550 cycles at temperatures ranging from 5°C to 60°C with a dwell time of 15 seconds in each bath and a transfer time of five seconds. The tensile bond strengths were determined using a Universal loading machine (Lloyd Universal Testing Machine) at a cross-head speed of 1 mm/min. On moist dentin, total-etch adhesives showed higher bond strength than did the all-in-one adhesives. Under the dry dentin condition, XP Bond exhibited significantly higher bond strength than did the Adper Single Bond 2 and two all-in-one adhesives, Adper Easy One and Xeno V.

Lopes LS, Calazans FS, Hidalgo R, Buitrago LL, Gutierrez F, Reis A, Loguercio AD, Barceleiro MO. Six-month Follow-up of Cervical Composite Restorations Placed With a New Universal Adhesive System: A Randomized Clinical Trial. *Oper Dent*. 2016 Jul 5.

The objective of this double-blind, randomized clinical trial was to evaluate the six-month clinical performance of a new universal adhesive (Xeno Select, Dentsply) in noncarious cervical lesions (NCCLs) using two evaluation criteria: World Dental Federation (FDI) and the US Public Health Service (USPHS). The six-month clinical behavior of Xeno Select Universal Adhesive depends on the bonding strategy used. The universal adhesive did not fulfill the American Dental Association criteria for full approval when used in the self-etch mode.

Loguercio AD, de Paula EA, Hass V, Luque-Martinez I3, Reis A1, Perdigão J4. A new universal simplified adhesive: 36-Month randomized double-blind clinical trial. *J Dent*. 2015 Sep;43(9):1083-92.

PROBLEM: It is still debatable which technique should be used with universal adhesives, either etch-and-rinse (wet or dry) or self-etch strategy (with or without selective enamel etching). While there was no statistical difference among bonding strategies when a universal adhesive was used, there were signs of degradation when the universal adhesive was applied in SE mode.

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other?

CAMBRA

2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?

Operative and Preventive teaches caries risk assessment (Department of General Dentistry)

- b. In which courses is caries risk assessment taught?

Introduction to Preventive Dentistry

Cariology

CAMBRA

- c. Is the teaching consistent across courses and disciplines?

Yes. Dr. Metz teaches them all. We are currently working hard to implement CAMBRA into the clinical curriculum where students will be required to perform a competency examination on data collection for preventive treatment planning.

3. How does caries risk assessment manifest in the clinic?
 - a. How is caries risk assessed and documented in patient records?

Caries risk assessment is evaluated and documented during the patient initial comprehensive examination and at all recall appointments. We are currently using a limited form for CRA that will be replaced by axium CAMBRA forms.

- b. Do students medically manage caries when indicated?

We have students prescribe salivary stimulant on patients with viable tissue and salivary replacements if no viable tissue. We have students prescribe chlorhexidine for high CR patients and place them on 5000ppm fluoride paste.

- c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis?

No yet, but we are working towards a more thorough RA with more accurate data collection: salivary flow testing, colony forming units, diet, OH, fluoride exposure and DMFT.

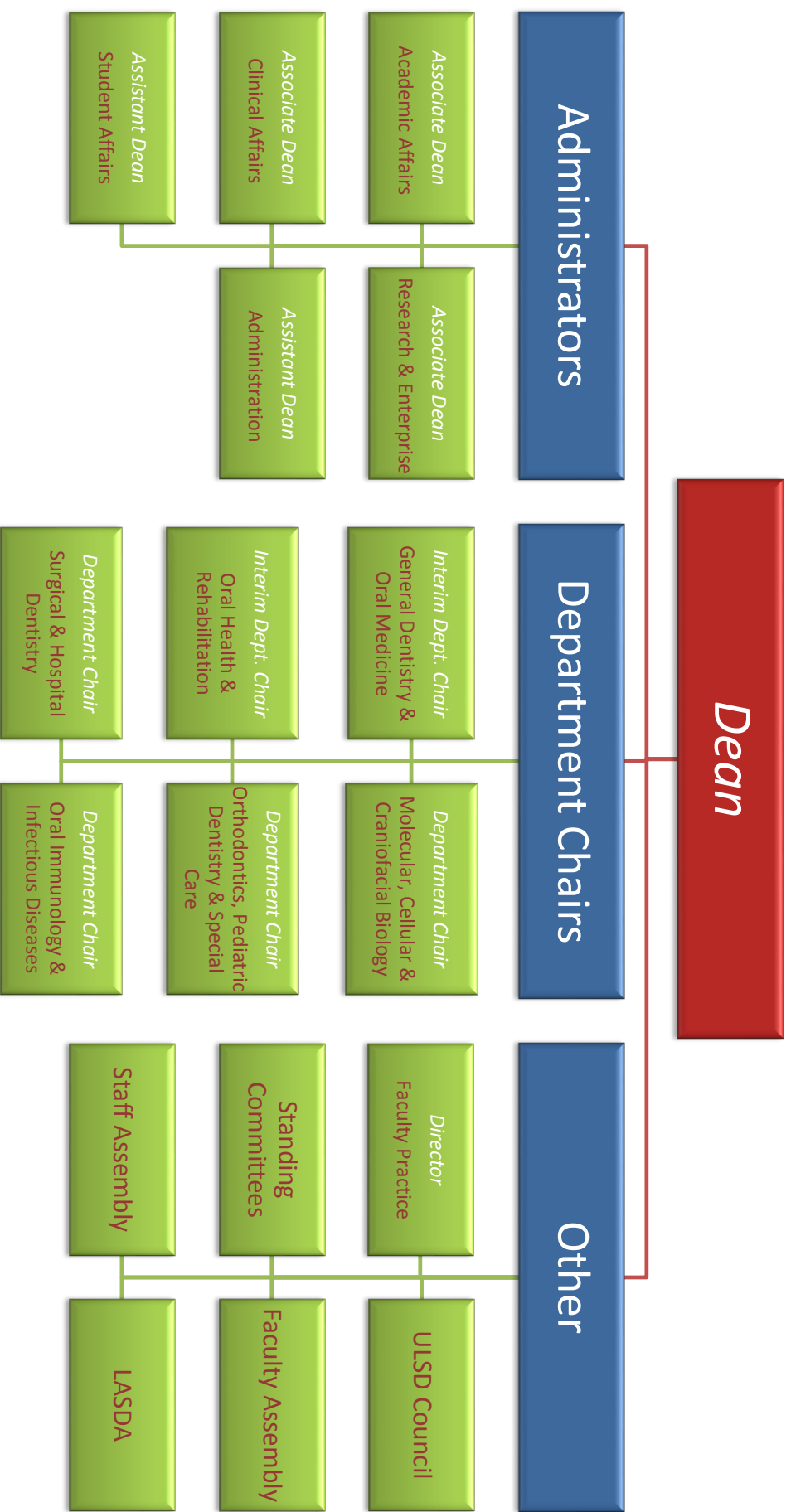
4. How is competency in caries risk assessment and management assessed over the four years of the curriculum?

We currently do not have a competency on CRA but that is going to change. Students do an OHI competency as part of their clinical periodontal course but does not assess CR.

5. How does caries risk assessment manifest in the faculty practice at your institution?

Our faculty practice will get the same updated CAMBRA forms following calibration on their use. Now they use the same axium form the students use.

University of Louisville School of Dentistry Organizational Chart



PREPARATION: OUTLINE FORM/EXTERNAL CAVITY DEFINITION (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA	
		Occlusal	Proximal
3	<ul style="list-style-type: none"> – Outline extended for convenience. – Outline centered on grooves, smoothly flowing with no sharp angles. – Enamel walls parallel to rod direction; walls and margins are smooth; cavity is well-defined. – Proximal box: walls & floor visually free of contact with adjacent tooth. – Adjacent tooth undamaged. 	<ul style="list-style-type: none"> – Isthmus width = 1 - 1.25mm. Approx. width of small hatchet Should be able to insert small condenser. – Preparation is centered on the groove. – Walls and margins are distinct & straight or smoothly curved. 	<ul style="list-style-type: none"> – Faciolingual extension: Just breaking contact with adjacent tooth - tip of explorer passes between the teeth. – Gingival extension: Breaks contact with adjacent tooth (extends half way into ging. embrasure); axial wall sufficiently long to permit distinct retention areas. – Reverse curve is present, if indicated. – Adjacent tooth undamaged
2	<ul style="list-style-type: none"> – Slightly underextended or slightly overextended. – Slight lack of cavity detail. – Slight damage to adjacent tooth. 	<ul style="list-style-type: none"> – Isthmus width: >1.25mm but <2mm. – Lacks free-flowing form: some sharp line angles in the outline form. 	<ul style="list-style-type: none"> – Buccal or lingual contact with the adjacent tooth has not been broken. – Reverse curve lacks ideal form or started too soon
1	<ul style="list-style-type: none"> – Defective fissures not removed or preparation is decidedly underextended or overextended. – Cavity is ill-defined. – Major damage to the adjacent tooth. 	<ul style="list-style-type: none"> – Isthmus width: <1mm or >2mm.; ½ - 2/3 of cusp is removed. – Defective fissures remain. – Markedly sharp angles in the outline form. – <1.5mm of enamel remains at the marginal ridge area. 	<ul style="list-style-type: none"> – Gingival margin is located <3mm or >4.5mm from the marginal ridge in absence of caries. – Periodontal probe passes unobstructed between the teeth. – No reverse curve when needed – For amalgam, proximal walls resemble a bevel from the axial wall to cavosurface margin.
0	<ul style="list-style-type: none"> – Grossly underextended or overextended. – Enamel is unsupported/ undermined. – Gross damage to adjacent tooth - would need restoration. 	<ul style="list-style-type: none"> – Preparation must be altered to include previously sound tooth structure. – Isthmus width: more than 2/3 of cusp is removed. – <1mm of enamel remains at the marginal ridge area. – Tooth weakened. 	<ul style="list-style-type: none"> – An additional proximal box must be added to the preparation. – No clearance between the teeth – Gingival floor extends to root surface in absence of caries.

PERFORMANCE CRITERIA

PREPARATION: INTERNAL FORM/RETENTION (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA	
		Occlusal	Proximal
3	<ul style="list-style-type: none"> – Cavity is well-defined. – Prep is perpendicular to occlusal plane. – Retention is conspicuous visually and tactually and not placed in axial wall or gingival floor. – Facial & Lingual walls are slightly convergent to occlusal. – Axio-pulpal is rounded or beveled. 	<ul style="list-style-type: none"> – Internal line angles are distinct and continuous. – Facial and lingual walls cannot be seen when viewed from the occlusal. 	<ul style="list-style-type: none"> – Internal line angles are distinct and continuous. – Facial and lingual walls cannot be seen when viewed from the occlusal. – Axio-pulpal line angle is rounded.
2	<ul style="list-style-type: none"> – Slight lack of cavity definition. – Retention is evident but insufficient or retention is slightly excessive. – F,L walls are slightly divergent or too convergent. 	<ul style="list-style-type: none"> – Internal line angles are indistinct or discontinuous in a few areas. – One cavity wall cannot be seen when viewed from the occlusal. 	<ul style="list-style-type: none"> – Internal line angles are indistinct or discontinuous in a few areas. – One cavity wall cannot be seen when viewed from the occlusal.
1	<ul style="list-style-type: none"> – Cavity is ill-defined. – Retention is absent in one or more areas or is excessive (undermines enamel). – Retention is placed excessively into axial wall or gingival floor. – Retention is too near proximal margin. – F,L walls are significantly divergent or undercut. 	<ul style="list-style-type: none"> – Internal line angles indistinct and discontinuous. – Both facial and lingual walls can be seen when viewed from the occlusal. – Pulpal floor slopes apically. 	<ul style="list-style-type: none"> – Internal line angles indistinct and discontinuous. – Both facial and lingual walls can be seen when viewed from the occlusal but retention lock is present. – Sharp axio-pulpal line angle. – Gingival floor slopes apically.
0	<ul style="list-style-type: none"> – Devoid of form. – Retention is not evident, results in gross loss of tooth structure, undermines tooth, or would produce exposure. – F,L walls are grossly divergent. 	<ul style="list-style-type: none"> – Line angles cannot be detected. – Both facial and lingual walls can be seen when viewed from the occlusal. 	<ul style="list-style-type: none"> – Gingival floor slopes markedly apically. – Both facial and lingual walls can be seen when viewed from the occlusal and no retention lock is present.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

DEPTH OF PREPARATION/FINISH OF WALLS AND FLOORS (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA	
		Occlusal	Proximal
3	<ul style="list-style-type: none"> – Preparation is extended into dentin. – Minimum pulpal floor depth is 1.5mm (2mm at central pit area). – Walls and margins are smooth. No chips or bevels. 	<ul style="list-style-type: none"> – Pulpal floor depth = 1.5-2mm. – Walls and margins are smooth. 	<ul style="list-style-type: none"> – Axial wall depth = 1-1.25mm for premolar; 1.5 for molar (Premolar – able to insert small hatchet between adjacent tooth and axial wall; Molar – insert large hatchet) – Convex axial wall – Walls and margins are smooth.
2	<ul style="list-style-type: none"> – Pulpal floor or axial walls are slightly shallow or slightly deep. – Slight roughness of walls. 	<ul style="list-style-type: none"> – Pulpal floor depth ≥ 2mm but < 2.5mm or slightly shallow < 1.5 – Walls or margins are ragged in a few isolated areas. 	<ul style="list-style-type: none"> – Axial wall depth ≥ 1mm or > 1.25mm for premolar; < 1.5 or ≥ 2mm for molar – Walls or margins are ragged in a few isolated areas.
1	<ul style="list-style-type: none"> – Pulpal floor or axial walls are decidedly shallow or require base unnecessarily. – Walls or margins are significantly rough. 	<ul style="list-style-type: none"> – Pulpal floor depth ≥ 2.5mm. but < 3mm or shallow ≈ 1 – Walls or margins are ragged over large areas. 	<ul style="list-style-type: none"> – Axial wall depth > 1.5 but < 2.0mm for premolar; > 2 but < 2.5 for molar; < 1 for premolar or molar – Concave or flat axial wall – Walls or margins are ragged over large areas.
0	<ul style="list-style-type: none"> – Floor or walls are in enamel or there is a pulp exposure. – Walls or margins are chipped over large areas. 	<ul style="list-style-type: none"> – Pulpal floor depth ≥ 3mm or ≤ 1mm; probable pulp exposure. – Walls or margins chipped over large areas. 	<ul style="list-style-type: none"> – Axial wall is in enamel < 0.5mm. – Probable pulp exposure > 2mm for premolar; > 2.5 for molar – Concave or flat axial wall – Walls or margins chipped over large areas.

3 = Exceptional \Rightarrow Satisfies all criteria

2 = Acceptable \Rightarrow Could be improved with minor changes

1 = Manageable \Rightarrow Needs major improvement

0 = Weak \Rightarrow Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: OCCLUSAL ANATOMY (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Restoration reflects natural anatomy. – Major groove pattern is established and centered within the restoration – Fossae should replicate original depth. – Marginal ridge matches height of adjacent tooth. – Functional contact. 	<ul style="list-style-type: none"> – Anatomy is continuous with existing anatomical form, restoring cusps, planes, grooves, marginal ridges. – Restored marginal ridge is rounded and at the same height as adjacent marginal ridge. – Occlusion is adjusted. Centric markings on restoration, tooth, and adjacent teeth of same intensity.
2	<ul style="list-style-type: none"> – Slight deviation from natural anatomy. 	<ul style="list-style-type: none"> – Slightly over- or undercontoured. – Mesial or distal pit is improperly placed. – Marginal ridge is slightly over- or undercarved.
1	<ul style="list-style-type: none"> – Significant deviation that is not correctable. 	<ul style="list-style-type: none"> – Restoration overcarved. – Faulty anatomy that cannot be corrected. – Groove anatomy is too close to cavosurface margin. – Groove anatomy is not continuous with grooves in the tooth.
0	<ul style="list-style-type: none"> – Heavy premature contact. – Devoid of anatomy. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Traumatic occlusion. – Marginal ridge or other features are decidedly high. – Marginal ridge overcarved; $\geq 5\text{mm}$ lower than adjacent ridge. – Surface of restoration is flat or scooped out.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: CONTOURS AND INTERPROXIMAL CONTACT (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Contours approximate original contours of the tooth. – Embrasures are reproduced and consistent with normal contours – Proximal contact is reestablished. 	<ul style="list-style-type: none"> – Contours continuous with the existing anatomical form. – Contacts visibly evident and confirmed by floss. – Contact is correct width. – Embrasures have normal contour.
2	<ul style="list-style-type: none"> – Contours deviate slightly. – Light proximal contact. 	<ul style="list-style-type: none"> – Facial or lingual embrasure is overcontoured but excess could be removed. – Contact is slightly open but probably self-correcting.
1	<ul style="list-style-type: none"> – Significant deviation in contours or contact that is not correctable. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Facial or lingual embrasure contours are flattened. – Contour cannot be adjusted properly. – Interproximal gingival area is restricted, tissue damage is likely. – Contact is faulty and self-correction is unlikely. Contact is significantly heavy.
0	<ul style="list-style-type: none"> – Conditions exist that indicate that damage is now occurring and replacement is needed immediately. 	<ul style="list-style-type: none"> – Contact is visually open and paper readily passes through the contact area. – Contact would prevent passage of floss. – Lacks embrasures. – Contours are excessively over- or undercontoured affecting gingival health.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: SURFACE FINISH AND MARGINAL ADAPTATION (Class 1 & 2)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Smooth surface, free of scratches, pits, and irregularities. – Imperceptible transition from tooth to restoration. 	<ul style="list-style-type: none"> – Tooth surface and restoration are flush at the cavosurface margin. – Smooth, free of scratches, pits, irregularities.
2	<ul style="list-style-type: none"> – Slight roughness. – Slight discontinuity of margin. 	<ul style="list-style-type: none"> – Surface of restoration is slightly rough or pitted but could be refinished. – Areas of perceptible transition from tooth to restoration. – Marginal ridge is slightly undercontoured.
1	<ul style="list-style-type: none"> – Surface is extremely rough. – Surface is too burnished. – Margin of restoration is decidedly thick. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Surface is deeply pitted, has irregular grooves that cannot be removed. – Significant roughness. – Significantly thick margins.
0	<ul style="list-style-type: none"> – Margin is ditched, chipped, or short. – Voids/porosities. – Marginal flash, overhang. – Conditions exist that indicate that damage is now occurring and replacement is needed immediately. 	<ul style="list-style-type: none"> – Non-improvable submarginal areas. – Surface is fractured. – Restoration is mobile. – Marginal flash or overhang that is not correctable. – Open margin. – Gross roughness, voids.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

PREPARATION: OUTLINE FORM/EXTERNAL CAVITY DEFINITION (Class 5)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Outline extended for convenience. – Ideal outline on dentoform resembles a trapezoid with rounded corners for anterior teeth and premolars – Enamel walls parallel to rod direction; walls and margins are smooth; cavity is well-defined. 	<ul style="list-style-type: none"> – Occlusogingival width: 1.5mm – Mesiodistal width: just inside the line angles. – Gingival placement: 1 mm from gingiva at center (dentoform only). – Mesiodistal orientation: centered on tooth surface. – Outline shape: Occlusal wall parallels the occlusal table. – No sharp angles.
2	<ul style="list-style-type: none"> – Slightly underextended or slightly overextended. – Slight lack of cavity detail. 	<ul style="list-style-type: none"> – Occlusogingival width: slightly wide ≥ 2.0 mm or narrow ≤ 1.5 mm – Mesiodistal width: .25mm past line angles – Gingival placement: 1.25 mm from gingiva at center or too close to gingiva $< .75$ mm (dentoform only) – Mesiodistal orientation: slightly mesial or distal – Outline shape: Shape is slightly incorrect
1	<ul style="list-style-type: none"> – Preparation is decidedly underextended or overextended. – Cavity is ill-defined. 	<ul style="list-style-type: none"> – Occlusogingival width: signif. wide ≥ 2.5 mm or narrow ≤ 1.0 mm – Mesiodistal width: 1mm beyond line angles or .5mm short of line angles – Gingival placement: 1.5 mm from gingiva at center or too close to gingiva $< .5$ mm (dentoform only) – Mesiodistal orientation: signif. too mesial or distal Outline shape: Shape is significantly incorrect
0	<ul style="list-style-type: none"> – Grossly underextended or overextended. – Enamel is unsupported/ undermined. 	<ul style="list-style-type: none"> – Occlusogingival width: signif. wide ≥ 3 mm or narrow $\leq .5$ mm – Mesiodistal width: > 1mm beyond line angles or decidedly short of line angles – Gingival placement: > 1.5 mm from gingiva at center or below gingiva (dentoform only) – Mesiodistal orientation: signif. mesial or distal – Outline shape: Shape is significantly incorrect

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

PREPARATION: INTERNAL FORM/RETENTION (Class 5)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Cavity is well-defined. – All walls diverge slightly toward the surface of the tooth. – Retention is conspicuous visually and tactually. – Retention is not placed in axial, mesial, or distal walls. 	<ul style="list-style-type: none"> – Walls are slightly divergent. – Retention is in occlusal and gingival walls for their entire length. Placed with 1/4 round bur at the axial line angles.
2	<ul style="list-style-type: none"> – Slight lack of cavity definition. – Retention is evident but insufficient or retention is slightly excessive. 	<ul style="list-style-type: none"> – Walls are slightly undercut or too divergent. – Retention is slightly deep, shallow, underextended.
1	<ul style="list-style-type: none"> – Cavity is ill-defined. – Retention is absent in one or more areas or is excessive. 	<ul style="list-style-type: none"> – Walls are significantly undercut or divergent. – Retention is in enamel or in axial wall, absent, or signif. overcut.
0	<ul style="list-style-type: none"> – Devoid of form. – Retention is not evident or results in gross loss of tooth structure. 	<ul style="list-style-type: none"> – Walls are grossly divergent. Total lack of resistance and retention form.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

DEPTH OF PREPARATION/FINISH OF WALLS AND FLOORS (Class 5)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Preparation is extended into dentin. – Walls and margins are smooth. 	<ul style="list-style-type: none"> – Axial wall depth: 1.5 mm at occlusal 1 mm at gingival – Axial wall follows external contour of tooth surface. – Walls and floor are smooth and well defined.
2	<ul style="list-style-type: none"> – Pulpal floor is slightly shallow or slightly deep. – Slight roughness of walls. 	<ul style="list-style-type: none"> – Axial wall depth: slightly deep >1.5 mm or shallow $\cong .75\text{mm}$ – Axial wall is flat mesiodistally. – Walls and floor are slightly rough or undefined.
1	<ul style="list-style-type: none"> – Pulpal floor is decidedly shallow or requires base unnecessarily. – Walls or margins are rough. 	<ul style="list-style-type: none"> – Axial wall depth: signif. deep $\cong 2\text{mm}$ or shallow $< .75\text{ mm}$ – Axial wall is concave mesiodistally. – Walls and floor are signif. rough or poorly defined.
0	<ul style="list-style-type: none"> – Floor is in enamel or there is a pulp exposure. – Walls or margins are chipped over large areas. 	<ul style="list-style-type: none"> – Axial wall depth: signif. deep >2 mm or shallow $\leq .5\text{ mm}$ – Axial wall is extremely concave mesiodistally. – Walls and floor are grossly rough or ill-defined.

3 = Exceptional \Rightarrow Satisfies all criteria

2 = Acceptable \Rightarrow Could be improved with minor changes

1 = Manageable \Rightarrow Needs major improvement

0 = Weak \Rightarrow Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: CONTOUR AND ANATOMY (Class 5)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Restoration reflects natural anatomy. – Smoothly convex mesiodistally and occlusogingivally. Not flat or concave. – No modification or recontouring of sound tooth structure 	<ul style="list-style-type: none"> – Anatomy is continuous with existing anatomical form, convex, continuous with tooth contour. – No recontouring or damage to tooth structure.
2	<ul style="list-style-type: none"> – Slight deviation from natural anatomy. 	<ul style="list-style-type: none"> – Slightly over- or undercontoured. – Slight recontouring or damage.
1	<ul style="list-style-type: none"> – Significant deviation that is not correctable. 	<ul style="list-style-type: none"> – Restoration overcarved or discontinuous with natural tooth surface. – Signif. recontouring or damage .
0	<ul style="list-style-type: none"> – Devoid of proper contours. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Surface of restoration is flat or scooped out. – Gross removal of sound tooth structure.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: MARGIN INTEGRITY AND SURFACE FINISH (Class 5)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Margins should be smooth and regular. No excess material or deficiencies. – Imperceptible transition from tooth to restoration. – No open margins or flash. 	<ul style="list-style-type: none"> – No excess material or deficiency detectable visually or with explorer. – Smooth, free of scratches, pits, irregularities.
2	<ul style="list-style-type: none"> – Margins deviate slightly. – Slight roughness. 	<ul style="list-style-type: none"> – Margin is heavy but excess could be removed. – Surface of restoration is slightly rough or pitted but could be refinished.
1	<ul style="list-style-type: none"> – Significant deviation in margins that is not correctable. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Margins are deficient and cannot be adjusted properly. – Significant roughness. Surface is deeply pitted, has irregular grooves that cannot be removed.
0	<ul style="list-style-type: none"> – Margin is ditched, chipped, or short. – Voids/porosities. – Marginal flash, overhang. – Conditions exist that indicate that damage is now occurring and replacement is needed immediately. 	<ul style="list-style-type: none"> – Non-improvable submarginal areas. – Surface is fractured. – Restoration is mobile. – Marginal flash or overhang that is not correctable. Margins are open. – Gross roughness, voids.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

PREPARATION: OUTLINE FORM/EXTERNAL CAVITY DEFINITION (Class 3)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Lingual entry confined to marginal ridge. – Cavity extends gingivally from middle of proximal contact. – Incisal margin maintains contact with adjacent tooth. – Adjacent tooth is undamaged. 	<ul style="list-style-type: none"> – Mesiodistal extension is limited to $\approx \frac{1}{2}$ of marginal ridge – Incisal extension: incisal margin touches middle of proximal contact. (Only break incisal contact if defective tooth structure is present.) – Incisogingival width is 1.5 mm. – Facial extension: facial wall is just visible in the facial embrasure – Outline is “rounded” rectangle with no sharp angles. – Adjacent tooth is undamaged.
2	<ul style="list-style-type: none"> – Slightly underextended or slightly overextended. – Slight lack of cavity detail. – Adjacent tooth is slightly damaged. 	<ul style="list-style-type: none"> – Mesiodistal extension is $> \frac{1}{2}$ of marginal ridge but within the ridge – Incisal extension: incisal margin is slightly too incisal or gingival to contact area. – Incisogingival width is slightly wide or narrow: ≈ 2.0 mm. or < 1.5 mm. – Facial extension: facial wall extended slightly more than 0.5 mm into the facial embrasure or fails to break contact. – Outline is rectangular with sharp angles. – Adjacent tooth is slightly damaged, not requiring restoration
1	<ul style="list-style-type: none"> – Preparation is decidedly underextended or overextended. – Cavity is ill-defined. – Significant damage to adjacent tooth. 	<ul style="list-style-type: none"> – Mesiodistal extension is just past the marginal ridge – Incisal extension: incisal margin is signif. too incisal or gingival to contact area. – Incisogingival width is signif. wide or narrow: ≥ 2.5 mm. or ≈ 1.0 mm. – Facial extension: facial wall extended signif. into the facial embrasure or too shallow < 1 mm. – Outline is irregular with sharp angles. – Significant damage to adjacent tooth.
0	<ul style="list-style-type: none"> – Grossly underextended or overextended. – Enamel is unsupported/undermined. – Gross damage to adjacent tooth requiring restoration. 	<ul style="list-style-type: none"> – Incisal extension: incisal margin is grossly malpositioned. – Incisogingival width is signif. wide ≥ 3 mm or narrow < 1 mm – Facial extension: facial wall extended signif. onto the facial surface or too shallow $< .75$ mm. – Outline is irregular with sharp angles. – Gross damage to adjacent tooth requiring restoration.

3 = Exceptional \Rightarrow Satisfies all criteria

2 = Acceptable \Rightarrow Could be improved with minor changes

1 = Manageable \Rightarrow Needs major improvement

0 = Weak \Rightarrow Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

PREPARATION: INTERNAL FORM/RETENTION (Class 3)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Cavity is well-defined. – Incisal, gingival, and facial walls are parallel to enamel rods (90° to tooth surface). – Retention is conspicuous visually and tactually. 	<ul style="list-style-type: none"> – Facial wall: parallel to facial surface. – Incisal and gingival walls are parallel to each other or slightly divergent. – Axial wall is generally parallel to proximal surface. – Retention is in dentin of incisal and gingival walls. – Walls are smooth.
2	<ul style="list-style-type: none"> – Slight lack of cavity definition. – Retention is evident but insufficient or retention is slightly excessive. 	<ul style="list-style-type: none"> – Facial wall: deviates from being parallel to facial surface. – Incisal and gingival walls are slightly convergent or too divergent. – Retention is in dentin of incisal and gingival walls but slightly deep or shallow. – Walls are slightly rough.
1	<ul style="list-style-type: none"> – Cavity is ill-defined. – Retention is absent in one or more areas or is excessive. 	<ul style="list-style-type: none"> – Facial wall: signif. lack of parallelism to facial surface. – Incisal and gingival walls are signif. convergent or too divergent. – Axial wall is signif. convex or concave. – Retention is absent at incisal or gingival or is signif. overcut or shallow. – Walls are signif. rough.
0	<ul style="list-style-type: none"> – Devoid of form. – Retention is not evident or results in gross loss of tooth structure. 	<ul style="list-style-type: none"> – Facial, incisal, or lingual walls are grossly undercut with undermined enamel or so divergent as to be nonretentive. – Retention is in enamel, or absent, or grossly overcut. – Preparation is grossly rough and ill-defined.

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2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

DEPTH OF PREPARATION/FINISH OF WALLS AND FLOORS (Class 3)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Preparation is extended into dentin. – Walls and margins are smooth. 	<ul style="list-style-type: none"> – Axial extension: axial wall depth is 1.25 - 1.5 mm at the incisal and 1 - 1.25 mm at the gingival. – Walls and margins are smooth and regular and well-defined.
2	<ul style="list-style-type: none"> – Axial wall is slightly shallow or slightly deep. – Slight roughness of walls. 	<ul style="list-style-type: none"> – Axial extension: axial wall depth is >1.5 or < 1mm at the incisal and >1.25 or < .75mm at the gingival. – Slightly rough, irregular, slight lack of definition.
1	<ul style="list-style-type: none"> – Axial wall is decidedly shallow or requires base unnecessarily. – Walls or margins are rough. 	<ul style="list-style-type: none"> – Axial extension: axial wall depth is >1.75 or <.5mm at the gingival. – Signif. rough, poorly defined. – Signif. damage.
0	<ul style="list-style-type: none"> – Axial wall is in enamel or there is a pulp exposure. – Walls or margins are chipped over large areas. 	<ul style="list-style-type: none"> – Axial extension: axial wall depth is >2mm or <.5 mm. – Grossly rough and ill-defined. – Gross damage.

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2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

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PERFORMANCE CRITERIA

RESTORATION: CONTOURS AND INTERPROXIMAL CONTACT (Class 3)

RATING	DESCRIPTION	PERFORMANCE CRITERIA
3	<ul style="list-style-type: none"> – Contours approximate original contours of the tooth. – Proximal contact is reestablished; definite but not excessive resistance to passage of dental floss. – All embrasures are reproduced. 	<ul style="list-style-type: none"> – Contours continuous with the existing anatomical form. – Contacts visibly evident and confirmed by floss. – 4 embrasures have normal contour. – Marginal ridge matches adjacent tooth.
2	<ul style="list-style-type: none"> – Contours deviate slightly. – Light proximal contact. – Embrasures deviate slightly from ideal. 	<ul style="list-style-type: none"> – Restoration is overcontoured but excess could be removed. – Proximal contour is slightly flat. – Slightly light or heavy resistance to floss. – Embrasures are slightly closed or too open.
1	<ul style="list-style-type: none"> – Significant deviation in contours or contact. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Facial or lingual contours are flattened or not continuous. – Contour cannot be adjusted properly. – Interproximal gingival area is restricted, tissue damage is likely. – Contact is faulty and self-correction is unlikely.
0	<ul style="list-style-type: none"> – Conditions exist that indicate that damage is now occurring and replacement is needed immediately. 	<ul style="list-style-type: none"> – Contact is visually open and paper readily passes through the contact area. – Lacks embrasures. – Contours are excessively over- or undercontoured affecting gingival health.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

PERFORMANCE CRITERIA

RESTORATION: SURFACE FINISH AND MARGINAL ADAPTATION (Class 3)

RATING		
	<ul style="list-style-type: none"> – Smooth transition from tooth to restoration. – No flash, voids, or open margins. 	<ul style="list-style-type: none"> – Tooth surface and restoration are flush at the cavosurface margin. – Finish is smooth, polished, free of scratches, pits, irregularities, discoloration.
2	<ul style="list-style-type: none"> – Slight roughness. – Slight discontinuity of margin. 	<ul style="list-style-type: none"> – Surface of restoration is slightly rough or pitted but could be refinished. – Areas of perceptible transition from tooth to restoration.
1	<ul style="list-style-type: none"> – Surface is extremely rough. – Margin of restoration is decidedly thick. – Restoration should be replaced to prevent future damage. 	<ul style="list-style-type: none"> – Surface is deeply pitted, has irregular grooves that cannot be removed without altering contour(s).
0	<ul style="list-style-type: none"> – Margin is ditched, chipped, or short. – Voids/porosities. – Marginal flash, overhang. – Conditions exist that indicate that damage is now occurring and replacement is needed immediately. 	<ul style="list-style-type: none"> – Non-improvable submarginal areas. – Surface has voids, gross roughness, fractured. – Restoration is mobile. – Marginal flash or overhang that is not correctable. – Open margin.

3 = Exceptional ⇨ Satisfies all criteria

2 = Acceptable ⇨ Could be improved with minor changes

1 = Manageable ⇨ Needs major improvement

0 = Weak ⇨ Unsatisfactory and/or not correctable within tolerable limits

GDOM 834/846: CLINICAL OPERATIVE EVALUATION AND COMPETENCY SHEET

Student: Group: Date: Instructor:		Tooth #							
		CDT Code							
		Classification							
		Surfaces							
		Competency Exam?	<input type="checkbox"/> YES <input type="checkbox"/> NO						
		Restoration Type:	<input type="checkbox"/> Amalgam <input type="checkbox"/> Composite						
CATEGORY		COMMENTS		FACULTY SCORE			STUDENT SCORE		
Overall Experience									
Preparedness: Medical Hx. Reviewed, Vitals Recorded, etc. (Intellectual Autonomy)			3	2	0	3	2	0	
Technical Competence (Delivery Tech.)			3	2	0	3	2	0	
Clinical Judgment (Confidence in Reasoning)			3	2	0	3	2	0	
Time Management (>2 hours = 0)			3	2	0	3	2	0	
Professionalism (Intellectual Integrity and Empathy)			3	2	0	3	2	0	
*Infection Control Violations			Yes			Yes			
Cavity Preparation									
Retention Form			3	2	0	3	2	0	
Outline Form (includes broken contacts)			3	2	0	3	2	0	
Resistance Form			3	2	0	3	2	0	
*Inadequate Anesthesia			YES			YES			
*Inadequate Rubber Dam Isolation			YES			YES			
*Caries Remaining			YES			YES			
*Iatrogenic Pulp Exposure			YES			YES			
*Existing Restorative Material Remaining			YES			YES			
*Liner poorly placed or not Requested			YES			YES			
*Extensive Hard or Soft Tissue damage			YES			YES			
Restoration									
Anatomical Form			3	2	0	3	2	0	
Embrasure Form			3	2	0	3	2	0	
Proximal Contact Strength and Placement			3	2	0	3	2	0	
Cavosurface Margin Integrity			3	2	0	3	2	0	
*Open/Short Margin or Material Voids			YES			YES			
*Open Proximal Contact			YES			YES			
*Proximal Overhang			YES			YES			
*Hyper-Occlusion			YES			YES			
*Extensive Hard or Soft Tissue Damage			YES			YES			
*Circled "Yes" = Critical Error		Grades: 3= Superior, 2= acceptable, 0=unacceptable	AVERAGE			/12			
						/12			

Evaluation, Assessment and Grading

Yes Circled?

- During any D3 (purple) daily procedures, D4 (yellow) daily procedure or competency examination (pink), a circled “YES” for any critical error will result in an unsuccessful experience and recorded as a zero (0).

(0) Score Circled?

- During any D3 daily procedure (purple), a zero (0) marked for any evaluation will be incorporated into the overall grade. Only mean scores ≥ 2.0 will be considered a successful experience.
- During any D4 daily experience (yellow) or competency examination (pink), a zero (0) for any evaluation will be considered a critical error and will result in an unsuccessful experience and recorded as a zero (0).

Scoring

- Student Assessment Grading Rubric is located in the clinical operative dentistry manual.

(3) = Superior

(2) = Acceptable

(0) = Unacceptable

(*) = Critical Error

- Scoring is determined by the sum of all the circled values divided by 12 (mean score)

Scoring Conversions to Grade

3.00 to 2.50 = A

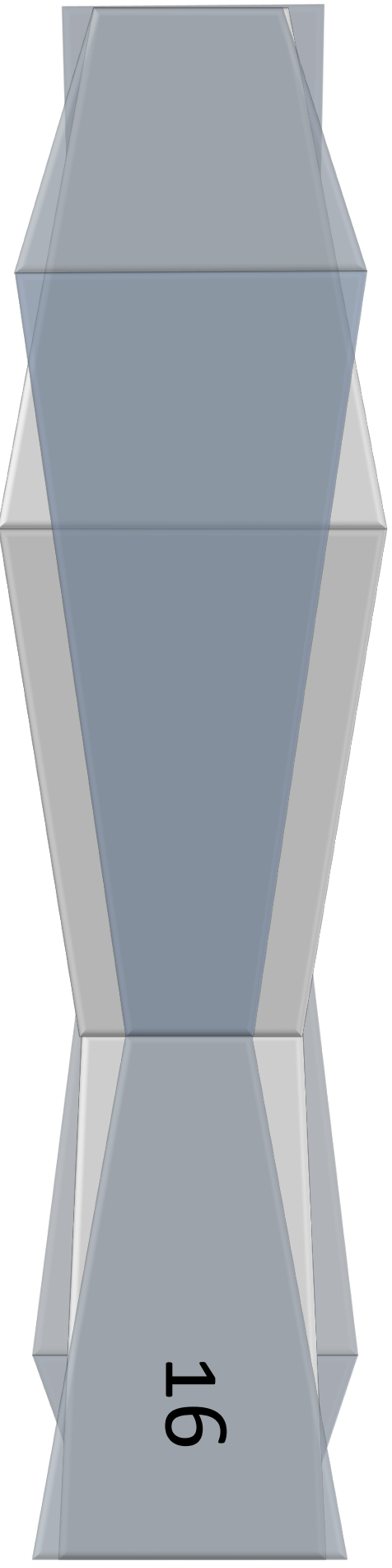
2.49 to 2.00 = B

< 2.00 = F

Clinical Operative Dentistry Skills Assessment and Grading Criteria

Division of Clinical Operative Dentistry

Dr. Michael Metz



Student Skills Assessment Grading Criteria- Clinical Operative Dentistry

Overall Experience and Intellectual Traits				
Category	Description	3 (Superior)	2 (Acceptable)	0 (Unacceptable)
Intellectual Autonomy	Student's ability to come prepared for the procedure.	Student is thoroughly prepared for the procedure proposed without guidance (e.g., completed paperwork, acceptable radiographs, vitals recorded, and understands clinical materials)	Student is generally prepared for the procedure proposed. Minimal faculty guidance may be necessary.	Student is not prepared for the procedure proposed and faculty guidance is necessary to complete the procedure(s) (e.g., incomplete paperwork, outdated/inadequate radiographs, vitals not recorded, or does not understand clinical materials)
Technical Competence	Student's ability to apply operative concepts into clinical practice.	Student can apply operative concepts to patient care without guidance.	Student can generally apply operative concepts to patient care. Minimal faculty guidance may be necessary.	Student unable to apply operative concepts to patient care (e.g., prepared wrong tooth, wrong area, wrong design). Extensive faculty guidance necessary.
Confidence in Reasoning	Student's ability to diagnose and treatment plan accordingly.	Student diagnosed patient correctly and has extensive knowledge of the patient without guidance. Student is able to apply critical thinking during the treatment.	Student diagnosed patient correctly and is generally familiar with patient. Minimal faculty guidance may be necessary to enhance critical thinking during the procedure.	Student misdiagnosed patient or is not familiar with patient. Student not able to critically think through the procedure. Extensive faculty guidance necessary.
Time Management	Student's ability to provide timely care for patients under local anesthesia.	Student completed the procedure < 1.5 hours.	Student completed the procedure from 1.5 to 2.0 hours	Student completed the procedure > 2.0 hours.
Intellectual Integrity and Empathy	Student's ability to communicate professionally with both faculty and patients.	Student prioritized professional communication with faculty and was empathetic towards patient.	Student generally able to effectively communicate with the faculty and patient. Student experienced lapses in empathy or respect.	Student lacked the ability to communicate with the faculty and patient. Student was not empathetic or respectful.
*Infection Control	Student's ability to provide universal precautions during patient care.	All infection control violations are considered critical errors. Either Yes or No		

Student Skills Assessment Grading Criteria- Clinical Operative Dentistry

Cavity Preparation				
Category	Description	3 (Superior)	2 (Acceptable)	0 (Unacceptable)
Retention Form	Student demonstrates an understanding of preparation features to provide mechanical retention of final restoration.	Student demonstrates the ability to place necessary primary retentive features (e.g., converging buccal & lingual walls, grooves, pots and slots) without guidance. Ideal form Faculty does not need to suggest modifications.	Student generally demonstrates the ability to place necessary primary retentive features (e.g., converging buccal & lingual walls, grooves, pots and slots). Minimal faculty guidance may be necessary. Close to ideal Faculty may need to suggest modifications.	Student cannot demonstrate the placement of primary retentive features (e.g., converging proximal walls, grooves, pots and slots). Lacks retention (can't detect with explorer) Excessive retention (can be visualized) Retention in wrong area (axial wall) Extensive faculty guidance necessary.
Outline Form	Student demonstrates an understanding of preserving anatomical structures, breaking contacts, and material selection.	Student demonstrates an ideal outline form (e.g., reflects material selection, breaks contacts, no damage to adjacent tooth, and removes caries & undermined enamel) without guidance. Faculty does not need to suggest modifications.	Student demonstrates an acceptable outline form (e.g., reflects material selection, breaks contacts, slight damage to adjacent tooth, removes caries, may have slightly undermined enamel). Close to ideal Faculty may need to suggest modifications.	Student cannot demonstrate an acceptable outline form. Excessive removal of tooth structure without requesting modifications (any wall) Wrong prep for material selected Reverse curve indicated but not used Extensive faculty guidance necessary.
Resistance Form	Student demonstrates an understanding of preparation features to prevent fracture of tooth and/or restoration.	Student demonstrates ideal placement of primary resistance form (e.g., flat pulpal floor at 1.5-2.0mm deep, rounded axial-pulpal line angles, and maintaining anatomical ridges) without guidance Faculty does not need to suggest modifications.	Student demonstrates acceptable placement of primary resistance form with guidance (e.g., some irregularity to pulpal floor depth, invasion of anatomical ridges) Close to ideal Faculty may need to suggest modifications.	Student cannot demonstrate placement of primary resistance form. Minimal occlusal prep (enamel remaining) Excessive occlusal prep (no modifications requested) Rough floors/margins Sharp axial-pulpal line angle Extensive faculty guidance necessary.
*Inadequate Anesthesia	Student's ability to provide profound anesthesia during patient care.	All inadequate anesthesia violations are considered critical errors (≥ 4 cartridges of lidocaine w/ 1:100k epinephrine).		
*Inadequate Rubber Dam Isolation	Student's ability to isolate the operating field during patient treatment.	Either Yes or No All rubber dam violations are considered critical errors.		
*Caries Remaining	Student's ability to identify and remove caries.	All carious tissue violations are considered critical errors. Either Yes or No		
*Iatrogenic Pulp Exposure	Student's ability to communicate preparation modifications from ideal	All unapproved pulp exposure violations are considered critical errors. Either Yes or No		
*Existing Restorative Material	Student's ability to remove all existing restorative materials during replacement procedures.	All existing restorative material violations are considered critical errors. Either Yes or No		
*Poorly Placed Lining Material	Student's ability to place pulpal protection when indicated	All poorly placed pulpal therapy violations are considered critical errors. Either Yes or No		
*Hard/Soft Tissue Damage	Student's ability to operate without damaging surrounding structures.	All extensive hard and soft tissue damage violations are considered critical errors. Either Yes or No		

Student Skills Assessment Grading Criteria- Clinical Operative Dentistry

Cavity Restoration				
Category	Description	3 (Superior)	2 (Acceptable)	0 (Unacceptable)
Anatomical Form	Student demonstrates the ability to restore anatomical landmarks and occlusion	Student demonstrates the ability to place the ideal and/or appropriate anatomical form in the restoration (e.g., marginal ridges, primary grooves, cusp heights, and occlusion) without guidance Faculty does not need to suggest modifications.	Student generally demonstrates the ability to place the correct anatomical form in the restoration (e.g., marginal ridges may be slightly high or low, primary grooves may be slightly deep or shallow, cusp heights may be slightly over or undercontoured, and occlusion may be slightly light or heavy) Close to ideal Faculty may need to suggest modifications.	Student cannot demonstrate the acceptable placement of anatomical form in the restoration (e.g., lack of marginal ridges, lack of primary grooves, cusp heights decidedly under or over contoured, and faulty occlusion) Significant marginal ridge discrepancy Hypoocclusion (non-functional) Lacks groove system (flat) Restoration needs replacement Extensive faculty guidance necessary.
Embrasure Form	Student demonstrates the ability to restore embrasure spaces to ideal	Student demonstrates the ideal placement of embrasure form and understands its role in gingival health without guidance Faculty does not need to suggest modifications.	Student generally demonstrates acceptable replacement of embrasure form Faculty may need to suggest modifications.	Student cannot demonstrate the acceptable replacement of embrasure form Too open (over finished) Too closed (under finished) Restoration needs replacement Extensive faculty guidance necessary.
Proximal Contact	Student demonstrates the ability to restore the strength and proper placement of proximal contacts	Student demonstrates the ideal placement of interproximal contacts (e.g., strength, location, and length) without guidance Ideal contact (pops floss) Correct location Correct length Faculty does not need to suggest modifications.	Student generally demonstrates acceptable placement of interproximal contacts (e.g., strength, location, and length). Light contact (catches floss) Location slightly displaced Acceptable length Faculty may need to suggest modifications.	Student cannot demonstrate the acceptable placement of interproximal contacts. Open contact (*critical error) Excessive contact (floss unable to pass through contact) Restoration needs replacement Extensive faculty guidance necessary.
Marginal Integrity	Student demonstrates the ability to provide smooth transitions between restorative material and tooth structure	Student demonstrates the ability to achieve ideal cavosurface margins that are smooth and free of voids, flash, and overhangs without guidance Faculty does not need to suggest modifications.	Student generally demonstrates the ability to achieve acceptable cavosurface margins. Minimal flash (otherwise ideal) Slightly bulky margins on restoration. Faculty may need to suggest modifications.	Student cannot demonstrate the ability to achieve acceptable cavosurface margins. Voids on margin (*critical error) Excessive flash Excessive overhang (*critical error) Restoration needs replacement Extensive faculty guidance necessary.
*Open/Short Margin	Student's ability to provide smooth transitions between restorative material and tooth structure	All open, short or voided margin violations are considered critical errors. Either Yes or No	All open proximal contact violations are considered critical errors.	
*Open Proximal Contact	Student's ability to restore the strength and placement of proximal contacts	Either Yes or No		
*Proximal Overhang	Student's ability to provide smooth transitions between restorative material and tooth structure	All interproximal overhang violations are considered critical errors. Either Yes or No		
*Hyperocclusion	Student's ability to restore anatomical landmarks and occlusion	All instances of hyperocclusion violations are considered critical errors. Either Yes or No		
*Hard/Soft Tissue Damage	Student's ability to finish restoration without damaging surrounding structures.	All extensive hard and soft tissue damage violations are considered critical errors. Either Yes or No		



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

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2016 National Agenda
Georgia- Augusta University

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses? **D1-Operative, D2- Advanced Pros, D3-Esthetics**

b. What System? **E4D**

c. How long have you been using a CAD/CAM System? **5 years**

d. How are you using CAD/CAM in your pre-clinical courses?

Prep/scan/design for onlays and veneers

e. What are the prerequisites for its use? **None**

f. When do students get to use it? **Clinic in D3**

g. Who provides supervision? **Clinical faculty**

h. What training did they receive? **Company sponsored courses, faculty development 6 week course.**

ii. Are you using CAD/CAM in your clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES

a. Which courses? **Jr. and Sr. Clinical Restorative Courses**

b. What System? **E4D**

c. How long have you been using a CAD/CAM System? **5 years**

d. How are you using CAD/CAM in your pre-clinical courses?

See above

e. What are the prerequisites for its use? **None**

f. When do students get to use it? **Clinic in D3 year**

g. Who provides supervision? **Clinical Faculty**

- h. What training did they receive? **Faculty training: 6-week course**
- iii. Are you using virtual reality haptic (**kinesthetic communication**) feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **Not presently**
 - i. What System?
 - b. How soon?
 - 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. **NO** **Not for pre-doctoral clinics but yes for residencies**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES** **for our residency programs- Ortho, Pedo, & Prosthodontics**
 - a. **What System? 3-Shape & the 3500 intraoral scanner by Carestream Dental**
 - b. How long have you been using a Digital Impression System?
 - c. What are the prerequisites for its use?
 - d. When do students get to use it?
 - e. Who provides supervision?
 - f. What training did they receive?
- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO** **Not for pre-doctoral clinics but yes for residencies**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?
 - b. What System?
 - c. How soon?

2. **YES** through commercial dental laboratories

- a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing? **Pre- and post-treatment models, some appliances including aligners**
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
- vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. **Internal training course, which allowed advantages of systems to be explained.**

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? **Avg. = 90**
- ii. What are your normal hours per clinical session? **9:00-11:45 AM & 1:00-4:45 PM**
- iii. How are your clinical groups set-up? **Jr. Year- no groups, traditional discipline-specific clinic areas. Sr. Year- the class is divided into 2 teams.**
- iv. How do your clinical groups function? **The dept. of General Dentistry provides primary oversight for clinical experience during the senior year. The GD Faculty are assigned to one of the 2 teams of students for primary oversight or continuity of patient care, monitoring student progress and to provide an increased frequency of personal contact for professional development. Cross-over experiences between faculty and teams occur to match faculty expertise with student needs and to expose the students to other faculty for a broader clinical perspective.**
- v. How long have you had your current structure? **The Sr. year General Dentistry department and the “Comp Care” clinical experience was implemented in August 2006 along with Axiom EDR and Digital Radiography on the same day starting with the Class of 2007.**
- vi. Do you plan on changing in the near future? **Not at this time.**

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available. **We screen an average of 70/week, approximately 90% are accepted to the pre-doctoral program.**
- ii. Are you having difficulty finding suitable patients? **The availability of good patients for a balanced clinical experience is always tight.**

- iii. If so, what are the main reasons? Augusta does not have a large population pool. Many patients present with similar situations (i.e., too many C/P patients, not enough intact dentition cases).

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? F varnish, 5000 ppm toothpaste, additional Ca Phosphate agents, arginine chews, green tea products, xylitol products.
 - 1. Do you use Carbamide Peroxide for caries control? It's controversial as there is little evidence, but some do.
 - 2. Do you use Sodium Diamine Fluoride for caries control? Yes, in the Pediatric Dentistry, and we have a working group to consider how to implement it in the adult clinic.
- ii. What evidence do you have to support your use/non-use? It was more a question of the FDA approval. Now that it is, we are moving ahead based on Rosenblatt and Niederman's article and the UCSF experience.
Reference- Rosenblatt A, Stamford TC, Niederman R. Silver diamine fluoride: a caries "silver-fluoride bullet" .J Dent Res. 2009 Feb; 88(2):116-25.

b. Caries Removal

- i. Do you teach total or partial caries removal? Partial removal

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? Yes for core build-ups.
- ii. Do you use bulk fill composite resin clinically? Yes, core build-ups
- iii. Which material(s) do you use? Comp Core
- iv. What is your preferred technique for use? Mix and insert
- v. What evidence do you have to support your use/non-use? Satisfactory experience over several years of use.

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? Daily Grades (below) and Competency Grades for various procedures in all clinical disciplines (Prosthodontics, Restorative, Periodontics, etc.) Operative Competencies include- Class I or V (amalgam, composite, or glass ionomer), Class II (amalgam or composite), Class III composite, Class II composite, Cusp-replacement (build-up).
- ii. Are students evaluated (graded) on their daily clinical procedures? Yes
 - 1. If so, what metrics or methods are used? Daily grade rubrics are built into Axium and are triggered when procedures are approved

as either In Progress or Complete. We have a 100 point scale that faculty use for numerical grades. Specific categories available for feedback include-

- Independence / Time & Resource Management
- Preparedness for Clinical Care- Knowledge of Patient & procedure
- Technical Competence- ability to perform
- Clinical Judgment- appropriate decision making
- Patient Management & Professionalism- Communication, Infection Control, Ethics, Pain Management

iii. Provide Rubrics if available.

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
We have 2 primary groups- Administrative Council and the Dental Faculty Senate. Other groups include the Deans Group, a Chairs Group, and an Employee Advisory Council.
 1. Who sits on this Council, Committee, or Board?
Administrative Council = Deans, Chairs, elected faculty and student representatives.
Dental Faculty Senate- any non-administrative faculty can serve on the senate. Officers are elected, committee members are appointed or elected.
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc.) do you have? Deans (8) = The Dean, Vice Dean, Dean for Clinics and Patient Services, Dean for Academic Affairs, Dean for Research, Dean for Advanced Ed, Dean for Business and Finances, and the Dean for Student Affairs and Admissions and Alumni Relations.
Department Chairs (9) = Oral Rehabilitation (Restorative), Periodontics, Endodontics, Oral Biology, Endodontics, Oral & Maxillofacial Surgery, Oral Health & Diagnostic Sciences, General Dentistry, and Pediatric Dentistry.
- iii. Provide school organizational tree if available. Attached

VI. Ethics and Professionalism

a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media? Yes, most recently with Instagram. The student portrayed their self in a very unprofessional manner
 1. ex...the use of patient photos on Facebook
 2. If so, provide examples.

ii. How do you inform the students of their professional responsibilities?

By the Dental Student Code of Conduct and an interdisciplinary professionalism program for all first year health professional and biomedical graduate students.

iii. What specific rules/guidelines do you have in place?

From the Code- Section Q. "Displaying unprofessional behavior toward patients, faculty, staff, and other students. This includes, but is not limited to, inappropriate or abusive comments/behavior, disregard for an individual's time, patient abandonment, professional dishonesty, and conduct unbecoming a healthcare professional. This includes in person interactions as well as communication by means of *electronic/social media*.

DISCIPLINARY ACTIONS

The following are possible disciplinary actions, which can be recommended to the Dean by the Hearing Subcommittee through regular case disposition procedures. These penalties are not all-inclusive and may be modified depending on the nature of the violation or violations.

A. Administrative Probation

B. Administrative Probation with Restrictions

C. Suspension

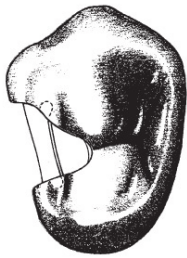
D. Expulsion

E. Nothing in the Code of Conduct shall prevent a student from receiving a combination of penalties, such as a suspension for a specified time, to be followed by a period of probation, which could also include restrictions.

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **Yes**
2. Is retention needed in the conservative amalgam preparation as indicated? **Yes** In the conservative composite resin preparation? **No**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **Students are introduced to self-assessment in the pre-clinical technique courses. Although we have not achieved uniform alignment of rubrics in our pre-clinical and/or clinical courses, the same faculty work with them during the first 3 years of our program providing some consistency (Pre-clinic through junior clinic).**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? **Sophomore.** Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **Starts in Sophomore Block Clinics**

DCG (Georgia)

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.
2. How do others teach material removal, particularly OLD composite? **We are not currently teaching this, but many of us think it might be a useful addition to preclinic.**
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations? **No, we don't.**

3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this. **We would like to see if anyone has good ideas.**
 - a. How do people grade practicals? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders? **We have one person grade an individual section of the rubric, with 2-3 graders total.**

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall?
Ideal- 0.5 mm into dentin
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? **Within 1.0 – 0.5 mm of the pulp**

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use. **Pediatric Dental Residency only at this time**
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. **N/A**

ECU

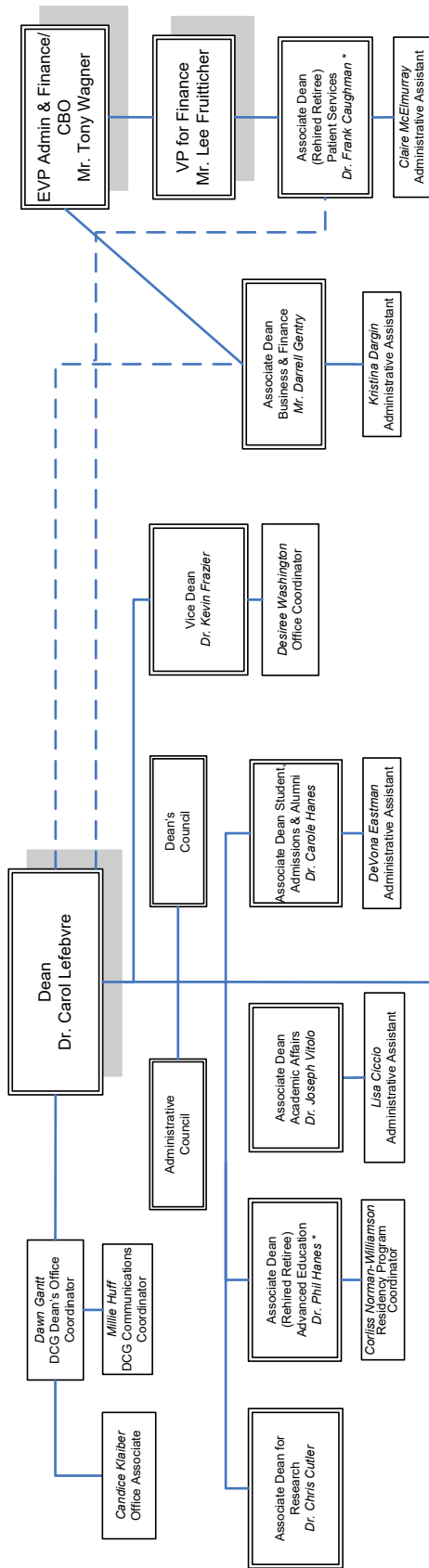
1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)? **Class I or V, Class II, Class III, Class II Cusp Replacement.**
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? **No. It is all tied to dental exercises.**

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?
 - a. If so, in what manner? **Redundant question with National Agenda**
 - i. scanning intraorally, inlays, onlays, single units
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
 - b. Are students designing restorations?
2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation **IV Generation Optibond FL**
 - b. Selective etch and wash, generation ____
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - i. What evidence have you cited (**cited**) on which to base your choice? **4th generation bonding agents are the most researched adhesives on the market.**

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? **Georgia uses the ADA caries risk assessment form, in the context of CAMBRA preventive recommendations.**
2. How does caries risk assessment manifest in the didactic/pre-clinical courses? **Multiple exposures and exercises D1 year to the Cariology concepts and CRA use. In the D2 year we do three lab exercises with extracted teeth: diagnosing pit and fissure caries (published on MedEd Portal), stepwise preparation of moderate caries, and vital pulp therapy with large carious lesions. There are also lectures in Operative with exercises using extracted teeth for Class V caries.**
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others? **Caries risk assessment is taught primarily by Operative faculty. Didactic contributions from Oral Biology faculty in the Cariology class.**
 - b. In which courses is caries risk assessment taught? **Community Oral Health, Operative, Oral Diagnosis and Treatment Planning, Sophomore Clinical experience.**
 - c. Is the teaching consistent across courses and disciplines? **Yes. For the most part, the same faculty member teaches it in multiple courses.**
3. How does caries risk assessment manifest in the clinic? **Every patient, every year. Every operative visit it is reinforced.**
 - a. How is caries risk assessed and documented in patient records? **axiUm form, with a comment in chart entry.**
 - b. Do students medically manage caries when indicated? **Certainly.**
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? **I do hope so!**
4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? **There is a competency that requires a student to correctly assess the risk and follow them for 9-12 months and document, treat correctly.**
5. How does caries risk assessment manifest in the faculty practice at your institution? **Not sure. I do not think it is a QA item.**



Endodontics Dr. Franklin Tay Chair	Marie Churchville Brian Bergeron † Lisiane Ferreira-Susin Steven Roberts
General Dentistry Dr. Richard Callan Chair	Martha Adams John Blalock Courtney Bebb James Bitt * Jill Cooper Michael Davenport * John Gunn Robert Hakonen * Barry Hammond William Horne Anthony Ship Mollica Maria Parantos Joseph Vido Nancy Young
Oral Biology Dr. Andrew Yeudall Chair	Michelle Burnside-Barnes Worku Abebe Mohamed Al-Shabrawey Babak Baban Greschen Caughman Ahmed Elmarsaby Mohammed Elslanty Adarsh Gulati Stephen Haru Ahmed Ibrahim Catherine Jaurgui Regina Messer Mahmoud Muzzafar Mohamed Sharawy * Amrany Tawfik Yong Teng Gary Whitford *
Oral Health & Diagnostic Sciences Dr. Kevin Frazier Interim Chair	Lynne Couture Rafik Abdelseved Monica Chang Scott De Rossi Wayne Herman * Allison Buchanan Sajitha Kalathigal Zoya Kurago Ilani Stern *
Oral and Maxillofacial Surgery Dr. Mark Stevens Chair	Cystal Thomas Henry "Burch" Ferguson † Lee Geller * Charles Graper * Ann Holzhafer * Solon Kato Anna Piquin John Sowell *
Oral Rehabilitation Dr. Kevin Plummer Interim Chair	Jamie Sherwood Annara Abreu William Bachand Philip Baker † Balasudha Balachandrayutham Martha Brackett * William Braselton * Frank Caughman * Edward "RC" Chesla Gerard Clotche † Katherine Clarocca John Cleman Jackie Delash Kevin Frazier Alan Furness Fernando Haddock C. Brent Haeblerie A. Jason Hamilton † Van Haywood Kenneth Jones * Robert Kallenbach * Drew Kious Gayathri Konchady Carol Lefebvre Jimmy Londono Rod Mackert * Kurt Metzler Jan Mitchell Michael Myers Darshanjit "DJ" Panu Veerinder Panu Michael Puett † Arthur Rahn * Robert Reichl * Mario Romero Frederick Rueggeberg Andriana Sananez Elizabeth Schappell * Rhoda Sword * Megan Todd * Ahmed Zaher
Oral Radiology Dr. Eladio De Leon † Chair	Pamela Bales Leon Atkinson * Harold Enoch * Weston Fortson, Jr. * James High * Franklin Hines * Daniel Levy Robert Powell * Robert Waugh *
Pediatric Dentistry Dr. Eladio De Leon Interim Chair	Jennifer Vandise Carole Hanes Bruce Riggs Roy Rockman * Tara Schaefer †
Periodontics Dr. Chris Cutler Chair	Toni Goodly Roger Arce Pachappan Arjunan Mark Brunner Mira Ghaly Jamie De Stefano Philip Hanes * Mark Peacock J. Kobi Stern † Cristiano Sun Ulf Wikesjö *



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

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2016 National Agenda

MUSC

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses? **Fixed Pros, Operative II**

b. What System? **Cerac and E4D**

c. How long have you been using a CAD/CAM System? **8 years**

d. How are you using CAD/CAM in your pre-clinical courses?
Fabricate crowns and onlays; used for grading in dental anatomy and fixed pros.

e. What are the prerequisites for its use? **? none, it's part of the course**

f. When do students get to use it? **Starting in D-1**

g. Who provides supervision? **Faculty**

h. What training did they receive? **Training begins in Dental anatomy D-1, and fixed pros D-2**

ii. Are you using CAD/CAM in your clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES

a. Which courses? **fixed pros and rem pros**

b. What System? **Cerac, E4D, 3-shape, TRIOS**

c. How long have you been using a CAD/CAM System? **6-7 years**

d. How are you using CAD/CAM in your pre-clinical courses?
Grade some pre-clinical work, fabricate crowns and onlays

- e. What are the prerequisites for its use? **None, except they must show proficiency in conventional impression technique before using 3-shape for fix pros impressions.**
 - f. When do students get to use it? **As soon as they start in clinic D-3**
 - g. Who provides supervision? **Trained faculty**
 - h. What training did they receive? **Company training and used /use it in faculty practice**
- iii. Are you using virtual reality haptic feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **No, at least not soon.**
 - i. What System?
 - b. How soon?
 - 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System? **3-Shape TRIOS**
 - b. How long have you been using a Digital Impression System? **3 years**
 - c. What are the prerequisites for its use? **Show proficiency in conventional impression technique**
 - d. When do students get to use it? **Show proficiency in conventional impression technique**
 - e. Who provides supervision? **Trained faculty and trained assistants**

- f. What training did they receive? **Company training and training by experienced faculty**
- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? **Yes**
 - b. What System? **Not sure**
 - c. How soon? **Probably 1-2 years. We have faculty using it in faculty practice.**
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
- vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. **Bring in the company educators, hire faculty who have used it clinically, identify those faculty who seem willing/capable and train them locally. You will not get all faculty on-board, especially some part-timers. This has not been a problem for us.**

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? 75
- ii. What are your normal hours per clinical session? 9-12 and 1-4
- iii. How are your clinical groups set-up? We don't have clinic groups
- iv. How do your clinical groups function? N/A
- v. How long have you had your current structure? forever
- vi. Do you plan on changing in the near future? I don't think so but we will be getting a new dean in the near future.

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients? **Yes, complete dentures, single canal endo**
- iii. If so, what are the main reasons? **We're saving more teeth and the endo residency takes a lot of the cases our students used to treat.**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

1. Do you use Carbamide Peroxide for caries control? **No, but I plan to**
2. Do you use Sodium Diamine Fluoride for caries control? **Yes, just started this year**
- ii. What evidence do you have to support your use/non-use? **Current literature**

b. Caries Removal

- i. Do you teach total or partial caries removal? **Some faculty (me and a couple others) teach selective partial removal, most teach total removal.**

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **No**
- ii. Do you use bulk fill composite resin clinically? **No, we only teach incremental fill except for occasional use of SDR flowable as a base. Some of us use Fuji IX rather than SDR.**
- iii. Which material(s) do you use? **Caulk SDR , Fuji IX**
- iv. What is your preferred technique for use? **Base with Fuji IX covered with a 1.5-2 mm layer of composite (my favorite is amalgam)**
- v. What evidence do you have to support your use/non-use? **The literature is full of studies showing depth of cure is limited to 2mm. A few years ago when Kerr introduced Sonic-Fill I did a study where I filled 5mm deep preps then sectioned them and tested the hardness. The knop hardness at 4mm was way better than Grandio SO but was still less than Sonic-fill at 1-2mm. (unpublished).**

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?
- ii. Are students evaluated (graded) on their daily clinical procedures? **Yes**
 1. If so, what metrics or methods are used? **This is currently changing. See rubric below**
- iii. Provide Rubrics if available.

	Exceeds Meets Points 20	Meets Partially Meets Points 15	Below Standards 10
Preparation for Appointment	Professional appearance Goals stated for appointment Proper equipment and materials for appointment to include mounted casts Orderly work area Proper infection control utilized	<input type="checkbox"/> Student is well prepared, but is either missing casts or other minor equipment or materials, does not adequately explain goals for procedure, or has a minor infection control violation	<input type="checkbox"/> Student not properly for clinic (clean scrubs, socks, closed toe shoes properly secured) (10)
Student faculty			

Patient Management Student _____ faculty _____	Updated medical history Current radiographs Patient concerns and treatment options addressed Patient understands fees	<input type="checkbox"/> Student meets all expectations for patient management, but has 1 out-of-date portion of clinical record	<input type="checkbox"/> Student performs procedure without explaining treatment options or fees
Time Management Student _____ faculty _____	Student on time for appointment Patient seated in a timely manner Procedure completed in time consistent with student experience level Faculty intervention not required to complete procedure	<input type="checkbox"/> Student manages time well overall, but either does not seat patient in a timely manner, does not begin procedure in a timely manner, or requires significantly more time to complete procedure than expected for experience level	<input type="checkbox"/> Student is significantly late (more than 15 minutes past patient arrival time) see patient (10 pts)
Technical Proficiency Student _____ faculty _____	Procedure completed at a high level of proficiency Student has thorough knowledge of materials and how to use them Student has complete understanding of all steps of procedure	<input type="checkbox"/> Procedure meets minimum clinical acceptance <input type="checkbox"/> Student is familiar with materials <input type="checkbox"/> Student is familiar with most steps of the procedure and requires minimal guidance	<input type="checkbox"/> Failure to place rubber dam without faculty approval (10 pts) <input type="checkbox"/> Procedure is clinically unacceptable but correctable (10 pts) <input type="checkbox"/> Lack of knowledge of procedure or materials (10 pts)
Faculty Communication Student _____ faculty _____	Faculty assistance requested as appropriate Student clearly and accurately articulates self-assessment to faculty	<input type="checkbox"/> Student recognizes need for faculty assistance, but number of requests impedes student's progression to independent work	<input type="checkbox"/> Student fails to recognize need for faculty assistance (10 pts)

There is a section for student self assessment

There is a section for faculty grading to be done AFTER patient leaves

If you think work is perfect, just put 20 in each of the 5 places. If you give less than 20, check what is wrong. Axium should total the 5 sections

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 1. Who sits on this Council, Committee, Board? **Dean's Council, The deans and department chairs.**
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? **5 deans, 5 department chairs**
- iii. Provide school organizational tree if available. **It is undergoing significant revision at this time.**

VI. Ethics and Professionalism

a. Social Media

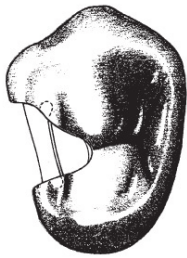
- i. Have you had any student conduct issues related to the improper use of Social Media? **No, we haven't**

1. ex...the use of patient photos on Facebook
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities?
Introduction to Dentistry course in D-1 There is also an online course required every year by the University
- iii. What specific rules/guidelines do you have in place?
HIPPA

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **Yes**
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation? **For amalgam, yes. For composite, often not**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **We actually haven't until recently and as of August, it has not started. On my practicals, an I may be the only one doing this, I require students to self-assess their work before turning it in. I still grade operative work the old fashioned way, subjectively. If the students self-assessment is spot on, I usually give them the benefit of a doubt in my grading.**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? D-3 I teach caries risk in Operative I in Fall of D-2. Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram?

DCG

1. How other colleges are teaching ICDAS? **We don't use ICDAS per say. We use the descriptions in axiUm. I do give a lecture on ICDAS and show how the axiUm descriptions fit into the ICDAS descriptions.**
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming. **I Agree!**
2. How do others teach material removal, particularly OLD composite? **Drill, dry it off, then drill some more. This is the hardest thing to do in Operative. I try to get them to always use BL-1 shade wherever it can be used.**

- a. Does anyone have a good criteria/rubric for repair vs replacement of restorations? **No, we don't. I teach in clinic to remove the recurrent caries then use that access to evaluate the composite/dentin junction of the remaining restoration. If all caries is removed and the bond of the remaining portion of the restoration seems good, then repair rather than replace.**
- 3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? **I teach Oper I and assist with Oper II so the Oper II instructor and I have been working together for about 6 years so the two of us grade everything in Operative, depending on the practical. I experimented with scanning but that does not do well with the undercuts in converging wall for Operative. Scanning is used a lot in fixed pros and in dental anatomy. Is there an ideal number of graders? For 75 students I would like to have 3-4 and this year I will start training the 3rd one.**

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall? **1.2 – 1.5mm**
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? **Well, that depends on the tooth and patients age, perhaps 3.5 – 4mm. I teach partial caries removal so I almost always use a GI base to position the "pulpal wall" 1.5 – 2mm deep**

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? **I teach it in Operative I; I just started this year.** If so, please describe the use. **I use the UCSF protocol.**
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. **No, we use 2% chlorhexadine under composite. It is placed for 30 sec and dried. Then Kerr XTR bonding agent is placed, then composite. If a Vitrabond base is used, the chlorhexadine is placed after the base.**

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)? **One pre-clinical and two clinical.**
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? **No we don't**

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?
 - a. If so, in what manner?

- i. scanning intraorally, inlays, onlays, single units
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
- b. Are students designing restorations? **Yes**
- 2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation____
 - b. Selective etch and wash, generation__
 - c. Selective etch and wash, Universal Adhesive
 - d. Other **We use Kerr Optibond XTR, a 6th generation material. No phosphoric acid etch is used. We made this switch because 35% phosphoric acid in student hands was problematic.**
 - i. What evidence have you cited on which to base your choice?
We did in-house testing of SBS which revealed decent strength of Optibond XTR without using phosphoric acid.

Enamel and dentin bond strengths of a new self-etch adhesive system
J Esthet Restor Dent. 2011 Dec;23(6):390-6.
Walter R1, Swift EJ Jr, Boushell LW, Braswell K.

Oper Dent. 2013 Nov-Dec;38(6):E237-45
Comparison of enamel and dentin shear bond strengths of current dental bonding adhesives from three bond generations.
Meharry MR, Moazzami SM, Li Y.

Am J Dent. 2012 Aug;25(4):239-43.
Enamel and dentin bond strength of new simplified adhesive materials with and without preliminary phosphoric acid-etching.
Juloski J1, Goracci C, Rengo C, Giovannetti A, Vichi A, Vulicevic ZR, Ferrari M.

Southern CaMBRA Coalition Agenda 2016

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? **CAMBRA**
2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
 - a. Who teaches caries risk assessment? **Operative**? Cariology? Public Health? Others?
 - b. In which courses is caries risk assessment taught? **Operative I ,Operative II, and treatment planning clinic**
 - c. Is the teaching consistent across courses and disciplines? **Yes it is**

3. How does caries risk assessment manifest in the clinic?
 - a. How is caries risk assessed and documented in patient records?
We use the axiUm caries risk form, long in clinic
 - b. Do students medically manage caries when indicated?
Yes they do but it depends on faculty assignment. I suspect once live-patient board exams go away students will stop “banking” these E2 lesions. Boards drive a lot of unethical stuff.
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? **Yes, the change has been slower than I had hoped but is becoming more and more apparent.**
4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? **We don’t do very well at this. I help teach the Advanced Treatment Planning course where senior students present one of their completed cases. Most but not all of them incorporate caries risk management.**
5. How does caries risk assessment manifest in the faculty practice at your institution?
Not as well as in the undergraduate clinics. Before I retired last June (2015) I believe I and one of the hygienists were the only ones using it.



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

2016 National Agenda- NSU responses are highlighted in blue

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience- Dr. Kilinc

i. Are you using CAD/CAM in your pre-clinical courses?

NSU- YES. We have a CAD/CAM Course that is a sim-lab course however the timing of the course is after the students get into the clinic. CAD/CAM is also incorporated in the Cosmetics Course but again, that course is after the students get their first clinical experiences.

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

NSU- Yes, we are currently working on a curriculum change to incorporate CAD/CAM, starting with Dental Anatomy, Operative Dentistry and Fixed Prosthodontics. It is not in effect yet.

b. What System?

NSU- In our CAD/CAM course, we utilize our Cerec Bluecam scanners for all the exercises and assignments. We also have a Planmeca(E4D) device but we only introduce that system didactically.

c. How soon?

NSU- The CAD/CAM course is already here but incorporation of it in other courses are aimed in the near future. Hopefully starting with 2017 Fall semester but we are currently working on it.

2. NSU- YES

a. Which courses?

NSU- Dental Anatomy, Operative Dentistry, Fixed Prosthodontics, Removable Prosthodontics, Implant Prosthetics, Periodontics (surgical guide fabrication/implant placement/immediate temporization)

b. What System?

NSU- The curriculum change regarding the incorporation in other courses is not there yet but since we have invested in Cerec system already and we have multiple scanners in that system, once the change happens, it would be feasible to use what we have rather than

investing in a whole new system. New equipment purchases and new investments should follow.

c. How long have you been using a CAD/CAM System?

NSU- We have had scanners for the last 8 years. The CAD/CAM course was an elective initially therefore not all students were exposed to it. They were doing clinical cases (scanning on models) but the numbers were limited due to limited exposure. The first change was to make the course mandatory to all students. Then the full integration of CAD/CAM (starting with introral scanning) into the clinic and the complete workflow of in-house single restorations started about 3 years ago.

d. How are you using CAD/CAM in your pre-clinical courses?

NSU-Cerec Bluecams are used. Preparation, scanning, milling, stain/glaze and try-in procedures on IPS e.max CAD and IPS Empress CAD are taught in the CAD/CAM course. The students use this knowledge in the clinic cases

e. What are the prerequisites for its use?

NSU-The pre-clinical course use is mandatory for every student. There are no prerequisites for its use. Chronologically, the students have their Fixed Prosthodontics and Cosmetic Dentistry courses before their CAD/CAM course but this was mostly due to limitations in finding a proper time slot before that.

f. When do students get to use it?

NSU-That is what we are working on right now. The students have their CAD/CAM course at the end of their third year however they are allowed to do clinical cases at the beginnings of their third year. That requires a D3 student to do one-on-one training with the clinical CAD/CAM faculty before the patient is scheduled

g. Who provides supervision?

NSU-We have a Clinical CAD/CAM Director and one other clinical CAD/CAM faculty that supervise the case flow. These faculty members

are not dedicated CAD/CAM faculty and they also happen to be team leaders. They supervise all clinical cases from start to finish within their own groups. However, in other clinic teams (6 other teams), the team leader of that group is responsible from these cases. CAD/CAM faculty only confirm the scan before the patient leaves, meet with the student separately (not chairside) to confirm the design and helps the student mill the restoration. Try-in and cementation steps are supervised by the student's own team leader. For all D3 students, in the critical steps such as scanning and cementation, the D3 student provider has to team up with a D4 student (since at this point, the D3 students are not exposed to adhesive cementation either). If it is a D4 student provider, they can do all steps with a dental assistant. In all CAD/CAM cases, the faculty members have to be present during the most critical step which is the adhesive cementation step.

h. What training did they receive?

NSU-CAD/CAM Course Directors received multiple Cerec trainings at the beginners level and then at the advanced level. Some of these courses were given in-house by Cerec trainers and some courses were taken at Sirona. The rest of the didactic faculty members have taken the beginner's course in-house with Cerec trainers. They were also given one-on-one trainings upon request. Clinical CAD/CAM Faculty and didactic CAD/CAM faculty members are different from one another. Their training experience is mentioned later in the document.

ii. Are you using CAD/CAM in your clinical courses?

NSU-Our CAD/CAM course is not in the clinic with patients but it is in the sim lab with the mannequins. The students get clinical exposure with their own patients with the supervision of Clinical CAD/CAM faculty.

a. Do you plan on incorporating CAD/CAM clinically?

NSU-CAD/CAM is incorporated clinically already. We have a clinical CAD/CAM protocol. We also have a system that only send digitally scanned cases to the dental lab. We are doing mostly single unit cases in-house using Cerec but we do all types of cases with digital impressions (bridges/implants etc).

i. What System?

NSU- Cerec: In-house restorations, 3M True Definition: lab fabricated cases

b. How soon?

NSU-Currently it is in use.

c. Which courses?

CAD/CAM Course teaches CAD/CAM from preparation to try-in.

Cosmetic Dentistry Course teaches the adhesive cementation part of it.

d. What System?

NSU-Cerec

e. How long have you been using a CAD/CAM System?

NSU-We have been routinely using CAD/CAM in the clinic on a daily basis for the past 2 years. Before then, they were doing selected cases on cast models.

f. How are you using CAD/CAM in your pre-clinical courses?

NSU-Repeat question: Preparation, scanning, milling, stain/glaze and try-in procedures on IPS e.max CAD and IPS Empress CAD are taught in the CAD/CAM course. The students use this knowledge in the clinic cases

What are the prerequisites for its use?

NSU-In the clinics, the students are allowed to do CAD/CAM cases right away. However, the only prerequisite is that they should do one conventional impression before their first intraoral scan. Typically they finish one conventional crown first but they are allowed to proceed with a CAD/CAM case along with their first conventional case as long as the steps of the conventional case are ahead of their CAD/CAM case.

NSU-Being taught in the CAD/CAM course is not a prerequisite to do a clinical case. Since the course is taught exactly one year after the students are already in the clinic, the previous protocol "to have the course first" was changed. This was preventing the students from getting experience for a whole year and they were required to give the cases to D4s which was not fair. A curriculum change to have the CAD/CAM course earlier in the curriculum is necessary. That is what we are working on.

g. When do students get to use it?

NSU-As soon as they have a case for it.

h. Who provides supervision?

NSU-We have a Clinical CAD/CAM Director and one other clinical CAD/CAM faculty that supervise the case flow. These faculty members are not dedicated CAD/CAM faculty and they also happen to be team leaders. They supervise all clinical cases from start to finish within their own groups. However, in other clinic teams(6 other teams), the team leader of that group is responsible from these cases. CAD/CAM faculty only confirm the scan before the patient leaves, meet with the student separately (not chairside) to confirm the design and helps the student mill the restoration. Try-in and cementation steps are supervised by the student's own team leader. For all D3 students, in the critical steps such as scanning and cementation, the D3 student provider has to team up with a D4 student (since at this point, the D3 students are not exposed to adhesive cementation either). If it is a D4 student provider, they can do –all steps with a dental assistant. In all CAD/CAM cases, the faculty members have to be present during the most critical step which is the adhesive cementation step.

i. What training did they receive?

NSU-Clinical CAD/CAM faculty members received multiple Cerec trainings, starting with the beginners level, then at the advanced level. Some of these courses were given in-house by Cerec trainers and some courses were taken at Sirona. The rest of the team leaders have taken the beginner's courses in-house with Cerec trainers. Clinical CAD/CAM faculty members of the institution have organized 7 CAD/CAM training sessions in the last 2 years to the rest of the team leaders. They also give one-on-one trainings to the faculty upon request.

iii. Are you using virtual reality haptic feedback training?

1. NSU-NO. We used to have that system but we do not use it anymore.

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?
 - i. What System?
- b. How soon?
- c. Which courses?
- d. What System?
- e. How long have you been using Virtual Reality Haptic Feedback Training?
- f. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?

- iii. How is it being used?
 - g. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?

NSU-In the clinics, all CAD/CAM cases are scanned intraorally. We moved away from scanning of the models.

- a. Do you plan on incorporating Digital Impressions in your clinical courses?

NSU-Yes, the protocol is digital impressions.

- b. What System?

NSU- Cerec system

- c. How soon?

NSU-It is in use

- d. What System?

NSU- Cerec and 3M True Definition

- e. How long have you been using a Digital Impression System?

NSU-In the last 2 years, we routinely do it.

- f. What are the prerequisites for its use?

NSU-One conventional impression first. And also very deep subgingival margins are difficult to scan.

- g. When do students get to use it?

NSU-As soon as they have a case for it.

- h. Who provides supervision?

NSU-Regarding the digital impression using True Definition scanner, any team leader can supervise scanning. However, they are recommended to show the scan to then Clinical CAD/CAM faculty before they send out the file to the lab. Once the faculty member feels comfortable with the system, they do not need confirmation of the clinical CAD/CAM faculty to send the file.

- i. What training did they receive?

NSU-Multiple in-house trainings were given by outside trainers as well as clinical CAD/CAM faculty.

- v. Are you using 3D printing for any pre-clinical or clinical application?

NSU-Yes, we have a 3D printer in our institution's library so we have done a couple of cases using our open architecture system as a trial but it is not in our clinical protocol since we do not own a 3D printer at CDM.

- a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses?

NSU-We do but we need to have the equipment purchase first.

- b. What System?

NSU-Depends on what our school can afford. We do not know yet.

- c. How soon?

NSU-Probably in 2017. We do not have one yet.

- d. What System?
e. How long have you been using 3D printing?
f. How do you use 3D printing?
g. What are the prerequisites for its use?
h. When do students get to use it?
i. Who provides supervision?
j. What training did they receive?
vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? **NSU- 130**
ii. What are your normal hours per clinical session?
NSU-8:30am-12:00pm- Mon- Friday;
1:00-5:00pm Mon, Thurs, Fri/ 1:00-4:00 pm Tues, Wed.
5:00-8:00-pm Tues, Wed
iii. How are your clinical groups set-up? **NSU- Team Leader Model**
25-30 D-3 and D-4 students / team with 2 assigned team leaders. Total of 8 Teams
iv. How do your clinical groups function? **NSU-Case completion comprehensive care**
v. How long have you had your current structure? **NSU-5 years**
vi. Do you plan on changing in the near future? **NSU-No**

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
NSU- Faculty are assigned to screening
1. Provide numbers screened and yield if available
NSU-10-20 patient screenings/day Yield 30-50%
ii. Are you having difficulty finding suitable patients? **NSU-No... waiting list**
iii. If so, what are the main reasons?

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? NSU- chlorhexidine, prescription and OTC Fluoride paste, gels, rinses, MI Paste Plus, Xylitol
 1. Do you use Carbamide Peroxide for caries control? NSU-No, we use it for internal bleaching
 2. Do you use Sodium Diamine Fluoride for caries control? NSU- No. Not for adult patients. Pediatric Dentistry is using it currently.
- ii. What evidence do you have to support your use/non-use? NSU-Systematic Reviews

b. Caries Removal

- i. Do you teach total or partial caries removal? NSU- Total caries removal: we have a research project involving step-wise caries removal

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? NSU-We have not but plan on introducing this year.
- ii. Do you use bulk fill composite resin clinically? NSU-We are looking at scientific literature to support clinical implementation
- iii. Which material(s) do you use? NSU-Nano-hybrid/ Micro-hybrid- Filtek Supreme, Premise
- iv. What is your preferred technique for use? NSU-Incremental Addition, 2 walls at a time to minimize polymerization shrinkage and lower C-factor
- v. What evidence do you have to support your use/non-use? Summit's Fundamentals of Operative Dentistry

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? NSU- See attached syllabi and competency assessment document

COMPETENCY ASSESSMENTS

Daily Clinical Evaluations DCE (P/F) Independent Preclinical/Clinical Performance
Assessments IPPA/ICPA
 includes: Mandatory Attendance Management
 Professionalism *Objective Structured Clinical Examination OSCE*

<u>Daily Clinical Evaluations</u>	<u>IPPA's/ICPA's/OSCE</u>
<u>RVU's</u>	<u>O- IPPAs or</u>
Summer D-3 ICPAs Benchmark 0 Data Collection Treatment Planning	(Can take Fall D-3 IPPAs)
Fall D-3 Benchmark 10 RVU's Restoration Restoration	2- Dentoform IPPAs: Class III Composite Preparation and Class II Amalgam Preparation and
Winter D-3 Patient: Benchmark 35 RVU's total Restoration	1- ICPA on a Class II Composite or Amalgam Preparation &
Summer D-4 Benchmark 45 RVU's total RVU's	O- IPPAs and ICPAs
Fall D-4 Benchmark 70 RVU's total Restoration	2- ICPAs on Patients: Class III Composite Preparation and Class II Composite or Amalgam Preparation and Restoration 1 Treatment Planning OSCE
Winter D-4 Patient: Benchmark 90 RVU's total	1 COMPLEX ICPA on 3 or more surfaces, Preparation and Restoration, anterior or posterior, composite or amalgam (including core-buildup) e.g. MOD+, Diastema Closure, Class IV, Class III- 3+ surfaces, or quadrant with minimum of 1 interproximal restoration

To challenge the D-3 ICPA, a student should have a minimum of **20 RVUs**

To challenge the first D-4 ICPA a student should have a minimum of **35 RVUs**

To challenge the second D-4 ICPA, a student should have a minimum of **50 RVUs**

To challenge the third D-4 ICPA, a student should have a minimum of **70 RVUs**.

ii. Are students evaluated (graded) on their daily clinical procedures? NSU-
Yes, Grading Sheets on axiUm. See attached Rubrics

1. If so, what metrics or methods are used?

iii. Provide Rubrics if available.

V. **Administration**

a. **Organizational Structure**

i. What is the name of the major decision making body within your school?

NSU-Administrative Executive Committee

1. Who sits on this Council, Committee, Board?

NSU- Dean, Associate Deans, other, as per the directive of the Dean

ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

NSU-Dean -1

Associate Deans – 9

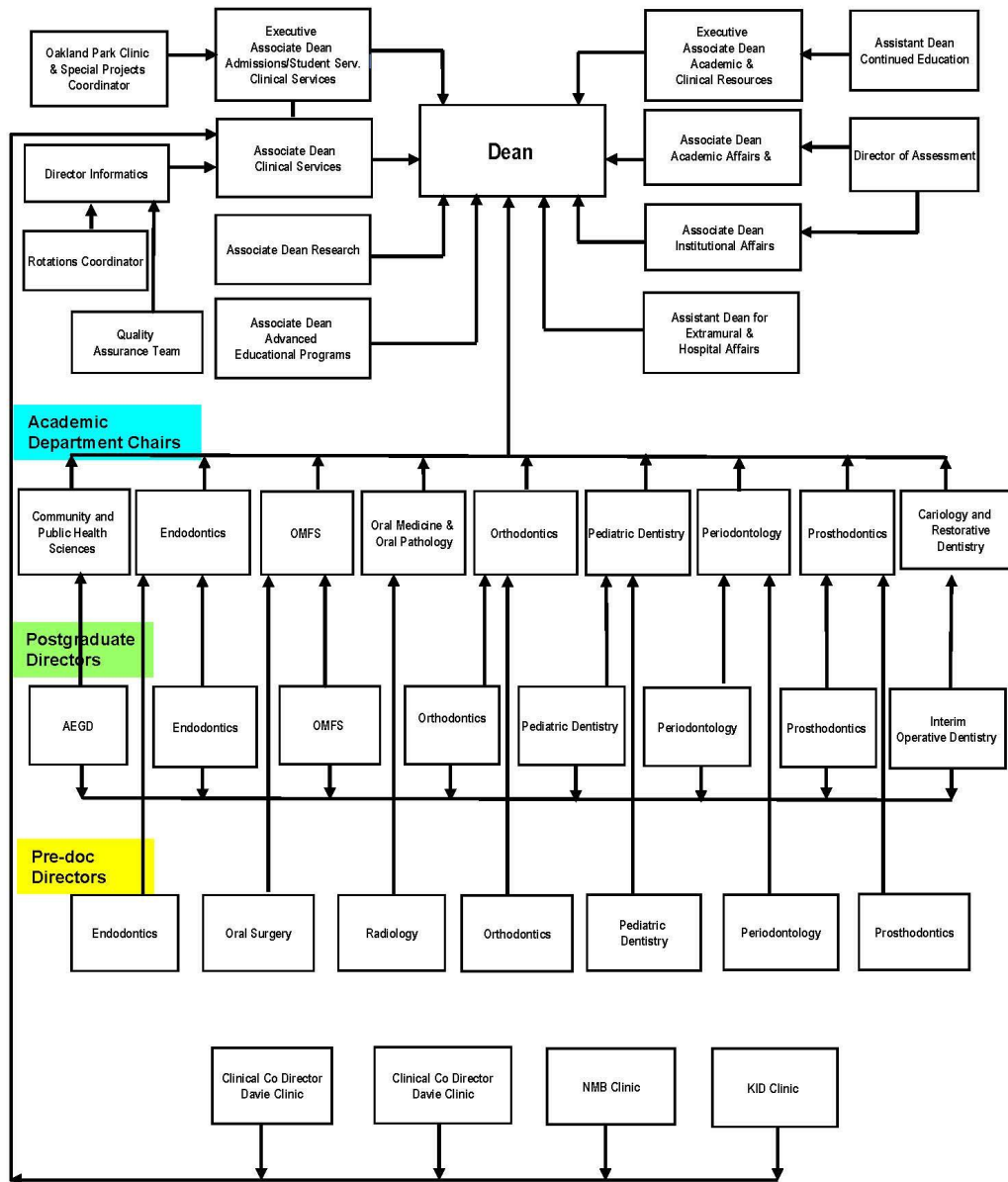
Department Chairs – 9

Program Directors - 8

iii. Provide school organizational tree if available.- NSU- Attached

NSU-CDM 2016 Organizational Chart

August 16, 2016



VI. Ethics and Professionalism- NSU- from the Office of Academic Affairs

a. Social Media

i. Have you had any student conduct issues related to the improper use of Social Media? NSU- Yes

1. ex...the use of patient photos on Facebook NSU- Not to our knowledge

2. If so, provide examples. NSU- Confidential

ii. How do you inform the students of their professional responsibilities?

Via student handbook, class meetings, emails, courses, ethical case scenarios, guest lecturers

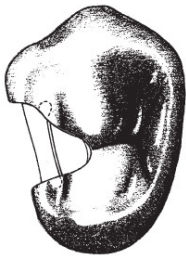
iii. What specific rules/guidelines do you have in place?

The student handbook has a long policy related to "Acceptable Use of Computing Resources and All Other Policies"; HIPAA regulations (with required student training) specify other policies related to this; Lectures and student discussions provide guidelines/recommended best practices.

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **NSU-Yes**
2. Is retention needed in the conservative amalgam preparation as indicated? **NSU-For amalgam only- dovetail or retention grooves. In the conservative composite resin preparation?**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **NSU- Students self-assess all IPPAs and ICPAs. There is a positive point system for level of agreement with instructor's assessment.**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? **NSU-D-2 QA rotation** Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **NSU- D-3 year; currently monitor non-cavitated lesions. Moving towards a formal ICCMS Pathway**

DCG

1. How other colleges are teaching ICDAS? **NSU- lecture presentations**
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.
2. How do others teach material removal, particularly OLD composite? **NSU- Combination diamond and carbide burs**
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations?
3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders? **NSU- Pre-clinical**

grading is done in one full day/ immediately following the practical with a team of graders. The head grader standardized and calibrates the team before grading begins. The team consists of 4-6 graders and they grade in pairs.

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall? NSU-Pre-clinical standard prep: 1.0-1.5 mm.
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? NSU- RDT less than 0.5 mm

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? NSU- we have been teaching use of silver diamine fluoride in the Postgraduate Operative Dentistry Program level for the past 2 years; we will be starting with the pre-doctoral program this year. Also, the Department of Pediatric Dentistry has been teaching its use at the postgraduate level for years. If so, please describe the use.
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. NSU- OPTIONAL, according to manufacturers' DFU.

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)? NSU- Pre-clinical: class I and II amalgam, Class II, III,IV, Composite; Clinical: Class II amalgam, composite, class III complex, complex ICPA involving 3 or more surfaces.
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? NSU-No

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?
 - a. If so, in what manner? NSU-YES
 - i. scanning intraorally, inlays, onlays, single units NSU-YES
 - ii. scanning intraorally, bridges NSU-YES
 - iii. scanning casts poured from conventional impressions NSU-NO
 - b. Are students designing restorations? NSU-YES
2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation NSU-4th
 - b. Selective etch and wash, generation NSU- considering its use
 - c. Selective etch and wash, Universal Adhesive NSU- considering its use
 - d. Other
 - i. What evidence have you sited on which to base your choice? NSU- Systematic Review

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? NSU- MODIFIED COHRI

2. How does caries risk assessment manifest in the didactic/pre-clinical courses? NSU- Lecture, Written Exams
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others? NSU-Dept. of Cariology and Restorative Dentistry, Department of Pediatric Dentistry
 - b. In which courses is caries risk assessment taught? NSU- IRDS I and II
 - c. Is the teaching consistent across courses and disciplines? NSU- YES

3. How does caries risk assessment manifest in the clinic? NSU-Every patient has caries risk assessment in initial and periodic oral exams and at exit exam.
 - a. How is caries risk assessed and documented in patient records? NSU- Caries Risk Assessment Form in axiUm.
 - b. Do students medically manage caries when indicated? NSU-YES for ICDAS I and II non-cavitated lesions
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? NSU-Caries risk assessment affects lesions where cavitation is questionable and inactive lesions.

4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? NSU- Written Exams, Initial and Periodic Caries Risk Assessments, QA rotations, Exit Exams and OSCE.

5. How does caries risk assessment manifest in the faculty practice at your institution? NSU-In Faculty practice clinic: CRA form is in Axiom. Preventive dentistry measures following CAMBRA protocols are administered.

2016 National Agenda

University of Florida

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. **NO**

- a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?
 - i. What System?
- b. How soon?

2. **YES**

- a. Which courses? **Dental Anatomy and Preclinical Operative III (last Operative preclinical course), Fixed Prosthodontics I and II**
- b. What System? **Students are Introduced to both E4D and Cerec**
- c. How long have you been using a CAD/CAM System? **10 Years**
- d. How are you using CAD/CAM in your pre-clinical courses? **E4D compare software in Dental Anatomy, Fixed Prosthodontics I and II. Exposure to both Cerec AC and E4D in Operative III. What are the prerequisites for its use? Operative III course and online requirement**
- e. When do students get to use it? **In their two first years of preclinical education. Who provides supervision? Operative and Prosthodontic faculty members in preclinic (first 2 years)**
- f. What training did they receive? **Courses by manufacturers and on the job training by trained faculty.**

ii. Are you using CAD/CAM in your clinical courses?

1. **NO**

- a. Do you plan on incorporating CAD/CAM clinically?
 - i. What System?
- b. How soon?

2. **YES**

- a. Which courses? **All six Operative clinical courses over the students' two years of clinical education.**
- b. What System? **Primarily E4D.**
- c. How long have you been using a CAD/CAM System? **10 years**
- d. How are you using CAD/CAM in your pre-clinical courses? **See above**
- e. What are the prerequisites for its use? **See above**
- f. When do students get to use it? **Students have CAD/CAM requirements each of their 2 years in clinic.**
- g. Who provides supervision? **Trained faculty member from the Operative, Prosthodontic and General Dentistry Division.**

- h. What training did they receive? **Courses by manufacturers and on the job training by previously trained faculty.**
- iii. Are you using virtual reality haptic feedback training?
 - 1. **NO**
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? **We have discussed incorporating some technology, but VRH is not in the near future.**
 - i. What System? **N/A**
 - b. How soon? **N/A**
 - 2. **YES**
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses
 - 1. **NO**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES**
 - a. What System? **Primarily E4D, we also have 3M True Definition**
 - b. How long have you been using a Digital Impression System? **10 years**
 - c. What are the prerequisites for its use? **See above**
 - d. When do students get to use it? **Students have CAD/CAM requirements each of their 2 years in clinic.**
 - e. Who provides supervision? **Trained faculty member from the Operative, Prosthodontic and General Dentistry Division.**
- v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? **Not at this moment**
 - b. What System? **N/A**
 - c. How soon? **N/A**
 - 2. **YES**
 - a. What System?

- b. How long have you been using 3D printing?
- c. How do you use 3D printing?
- d. What are the prerequisites for its use?
- e. When do students get to use it?
- f. Who provides supervision?
- g. What training did they receive?
- 3. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. **Promote frequent literature review on the subject, provide opportunity for training/updates, and have availability/access to scanners/milling machines for DMD-DDS students and faculty to use in all clinics. Incorporate regular calibration sessions.**

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? **Each class starts with 93 students enrolled.**
- ii. What are your normal hours per clinical session? **There are two sessions every day, but Wednesday. Those sessions are scheduled from 8:30 – 11:30 a.m. and from 2:00 – 5:00 p.m.**
- iii. How are your clinical groups set-up? **They are set up in teams. Each team is approximately 20-22 students. Each team also have a Team Leader and a clinical coordinator. Students are also paired (senior and junior) and shared their patient family.**
- iv. How do your clinical groups function? **There is a total of four clinics, and two teams per clinic. Each clinical session has coverage as follow: a team leader, an operative faculty, a prosthodontics faculty and periodontics faculty.**
- v. How long have you had your current structure? **For approximately 6 years**
- c. Do you plan on changing in the near future? **Our last change was pairing students and it has been a success. We are discussing creating a centralized screening clinic.**
 - i. How are patients screened for acceptance into your pre-doctoral program?
 - 1. Provide numbers screened and yield if available
 - ii. Are you having difficulty finding suitable patients? **Yes, we have a proposal of making a screening clinic to recruit a better pool of patients.**
 - iii. If so, what are the main reasons? **The complexity of the cases, financial burden and distance commitments.**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? **For at-home care: Fluoride 1,100 ppm and 5,000 ppm (prescription for high to extreme risk patients). For in-office care: Fluoride varnish (22,600 ppm F), and more recently, SDF (UFCD clinical protocol is attached).**
- ii.
 - 1. Do you use Carbamide Peroxide for caries control? **No**

2. Do you use Sodium Diamine Fluoride for caries control? **Yes**
- iii. What evidence do you have to support your use/non-use?

Fluoride:

Weyant RJ, Tracy SL, Anselmo TT, Beltran-Aguilar ED, Donly KJ, Frese WA *et al.* (2013). Topical fluoride for caries prevention: executive summary of the updated clinical recommendations and supporting systematic review. *J Am Dent Assoc* 144(11):1279-1291.

Marinho VC, Worthington HV, Walsh T, Clarkson JE (2013). Fluoride varnishes for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 7:CD002279

SDF (randomized clinical trials are needed but below are some of literature available):

Rosenblatt A, Stamford TC, Niederman R (2009). Silver diamine fluoride: a caries "silver-fluoride bullet". *J Dent Res* 88(2):116-125.

Santos VE, Jr., Vasconcelos Filho A, Targino AG, Flores MA, Galembeck A, Caldas AF, Jr. *et al.* (2014). A new "silver-bullet" to treat caries in children--nano silver fluoride: a randomised clinical trial. *Journal of dentistry* 42(8):945-951.

Zhang K, Li F, Imazato S, Cheng L, Liu H, Arola DD *et al.* (2013). Dual antibacterial agents of nano-silver and 12-methacryloyloxydodecylpyridinium bromide in dental adhesive to inhibit caries. *Journal of biomedical materials research Part B, Applied biomaterials* 101(6):929-938.

Horst JA, Ellenikiotis H, Milgrom PL. UCSF Protocol for Caries Arrest Using Silver Diamine Fluoride: Rationale, Indications and Consent. *J Calif Dent Assoc.* 2016 Jan;44(1):16-28.

b. Caries Removal

- i. Do you teach total or partial caries removal? Partial removal of carious tissues.
(*hopefully, we can attach the UFCD protocol that is being currently revised*)

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **Yes**
- ii. Do you use bulk fill composite resin clinically? **Yes**
- iii. Which material(s) do you use? **Surefill SDR low viscosity**
- iv. What is your preferred technique for use? *Placement in the gingival boxes of Class II and pulpal floor of moderate depth tooth preparations*
- v. What evidence do you have to support your use/non-use?

van Dijken JW, Pallesen U. Posterior bulk-filled resin composite restorations: A 5-year randomized controlled clinical study. *J Dent.* 2016 Aug;51:29-35.

Vinagre A, Ramos J, Alves S, Messias A, Alberto N, Nogueira R. Cuspal Displacement Induced by Bulk Fill Resin Composite Polymerization: Biomechanical Evaluation Using Fiber Bragg Grating Sensors. *Int J Biomater*. 2016;2016:7134-283.

Van Ende A, De Munck J, Van Landuyt K, Van Meerbeek B. Effect of Bulk-filling on the Bonding Efficacy in Occlusal Class I Cavities. *J Adhes Dent*. 2016;18(2):119-24.

de Assis FS, Lima SN, Tonetto MR, Bhandi SH, Pinto SC, Malaquias P, Loguercio AD, Bandéca MC. Evaluation of Bond Strength, Marginal Integrity, and Fracture Strength of Bulk- vs Incrementally-filled Restorations. *J Adhes Dent*. 2016 Jul 14.

Alshali RZ, Salim NA, Satterthwaite JD, Silikas N. Long-term sorption and solubility of bulk-fill and conventional resin-composites in water and artificial saliva. *J Dent*. 2015 Dec;43(12):1511-8.

Rosatto CM, Bicalho AA, Veríssimo C, Bragança GF, Rodrigues MP, Tantbirojn D, Versluis A, Soares CJ. Mechanical properties, shrinkage stress, cuspal strain and fracture resistance of molars restored with bulk-fill composites and incremental filling technique. *J Dent*. 2015 Dec;43(12):1519-28.

Kumagai RY, Zeidan LC, Rodrigues JA, Reis AF, Roulet JF. Bond Strength of a Flowable Bulk-fill Resin Composite in Class II MOD Cavities. *J Adhes Dent*. 2015 Aug;17(5):427-32.

Al-Harbi F, Kaisarly D, Michna A, ArRejaie A, Bader D, El Gezawi M. Cervical Interfacial Bonding Effectiveness of Class II Bulk Versus Incremental Fill Resin Composite Restorations. *Oper Dent*. 2015 Nov-Dec;40(6):622-35.

Benetti AR, Havndrup-Pedersen C, Honoré D, Pedersen MK, Pallesen U. Bulk-fill resin composites: polymerization contraction, depth of cure, and gap formation. *Oper Dent*. 2015 Mar-Apr;40(2):190-200.

Kim RJ, Son SA, Hwang JY, Lee IB, Seo DG. Comparison of photopolymerization temperature increases in internal and external positions of composite and tooth cavities in real time: Incremental fillings of microhybrid composite vs. bulk filling of bulk fill composite. *J Dent*. 2015 Sep;43(9):1093-8.

El-Damanny H, Platt J. Polymerization shrinkage stress kinetics and related properties of bulk-fill resin composites. *Oper Dent*. 2014 Jul-Aug;39(4):374-82.

Flury S, Peutzfeldt A, Lussi A. Influence of increment thickness on microhardness and dentin bond strength of bulk fill resin composites. *Dent Mater*. 2014 Oct;30(10):1104-12.

IV. Student Assessment

a. Clinical Grades

What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? Pre-clinical and Clinical evaluation is based on a quality evaluation which consists of daily clinic evaluations, level I skills assessments in the junior year and level II

skills assessments in the senior year. In addition, the amount of experience gained in the clinic is evaluated by the number of RVUs earned.

Clinical Operative Syllabus Overview							
Semester	Summer/6	Fall/7	Spring/8	Summer/9	Fall/10	Spring/11	Graduation
Course #	7744L	7745L	7746L	8747L	8748L	8749L	
Credit hours	1	2	2	2	2	2	
Quality Evaluation							
Daily Clinic Evaluation	The Following 3 Criteria are Evaluated During Each Clinic Session: 1. Patient and Appointment Management 2. Problem Solving, Clinical Reasoning and Integration of Relevant Scientific Evidence 3. Clinical Skill			Evaluation is based on whether a student: Exceeded the Expected Outcome Achieved the Expected Outcome Achieved an Acceptable Outcome with Modification/Intervention Did Not Meet the Expected Outcome (Refer to the Daily Clinical Assessment Rubric p.9 & 10)			
	Level I Skills Assessments		Successful Completion of all 3		Successful Completion of all 4		Successful Completion of all 3
Level II Skills Assessments							Successful Completion of all 4
Miscellaneous Requirements Aesthetic & Complex Class II	1 CAD/CAM Onlay (or 2 assists) 1 Veneer or Diastema Closure (or 2 assists) 1 Complex Class II Restoration			1 CAD/CAM Onlay 1 Veneer or Diastema Closure 1 Complex Class II Restoration			Successful Completion of Jr. & Sr. Requirements
<p><u>Students must complete a minimum of one case in the same clinical classification prior to challenging the skills assessment.</u></p> <p><i>Students must select the case and patient and declare the skills assessment at the morning huddle.</i></p> <p><i>A grade of "2.5" or greater is considered a passing grade for skills assessments.</i></p> <p><i>An grade of "1" or "F" in any category will result in a failing grade for the skills assessment.</i></p>							
Quantity Evaluation							
Breadth of Experience/RVUs	4 >600	>3,000	>5,500	>8,000	>10,500	>13,000	11,001
	3 450-599	2,500-2,999	4,750-5,499	7000-7999	9,500-10,499	12,000-12,999	
	2 350-449	2,000-2,499	4,000-4,749	6000-6999	8,500-9,499	11,000-11,999	
	1 <350	<2,000	<4,000	<6,000	<8,500	<11,000	
A minimum of 1000 RVUs must be accumulated in semesters 7 through 11 in order to achieve the above grades.							
Grade							
Quality 70%							
Quantity (RVUs) 30%							
All skills assessments and miscellaneous requirements must be completed by semester 8 and 11 or an "E" grade will be issued.							

- i. Are students evaluated (graded) on their daily clinical procedures? Our daily clinical evaluation consists in three components (see below)

	Did Not Meet Expected Outcome	Modification/Intervention	Achieved Expected Outcome	Exceeded Expected Outcome
Patient and Appointment Management (Including Infection Control)				
Problem Solving, Clinical Reasoning and Integration of Relevant Scientific Evidence				
Clinical Skill				
Comment (optional)				

If so, what metrics or methods are used?

Daily Clinical Assessment Rubric description of the grading criteria. (see rubric below)

The grade scale is:

4-Exceeded Expected Outcome

3-Achieved Expected Outcome

2-Modification/Intervention Necessary

1-Did Not Meet Expected Outcome

- ii. Provide Rubrics if available.

Daily Clinical Assessment Rubric

	Exceeded Expected Outcome (4) (all of the following are true)	Achieved Expected Outcome (3) (all of the following are true)	Modification/Intervention Necessary (2) (any or all of the following are true)	Did Not Meet Expected Outcome (1) (any or all of the following are true)
Patient and Appointment Management (Including Infection Control)	<ul style="list-style-type: none"> Outstanding preparation, record management, time utilization, pain control and infection control Demonstrates a high level of compassion and respect for patient, staff and faculty. Clearly recognizes patients' needs in the context of their lives and their oral care. Skilled and purposeful communication which demonstrates sensitivity to cultural diversity Displays fair-mindedness and actively seeks feedback 	<ul style="list-style-type: none"> Acceptable preparation, record management, time utilization, pain control and infection control Demonstrates compassion and respect for patient, staff and faculty. Recognizes patients' needs in the context of their lives and their oral care Acceptable communication Seeks feedback <p>Acceptable standard was met Student is prepared to perform the procedure. Student needs some assistance Student finishes on time (treatment and paperwork)</p>	<ul style="list-style-type: none"> Minimally prepared, help needed with record management, time management, pain control and/or infection control Does not fully recognize or understand the interpersonal needs of the patient, staff and faculty. Challenged communication Does not seek feedback <p>Acceptable standard was met with assistance/modification Student finishes on time with the patient however the paperwork and grading have to be done after clinical hours.</p>	<ul style="list-style-type: none"> Unprepared, unaware of the steps and procedure to satisfactorily meet the needs of the patient Inappropriate record management, time utilization, pain control, and/or infection control Ineffective communication and failure to establish functional rapport with patient, staff and/or faculty Unaware or uninterested in patient's needs. Displays closed-mindedness by resisting faculty or patient feedback. <p>Acceptable standard was not met Time was improperly managed, not finished on time and/or the patient must return to complete procedure. The paperwork and grading may have to be done after clinical hours.</p>
Problem Solving, Clinical Reasoning and Integration of Relevant Scientific Evidence	<ul style="list-style-type: none"> Demonstrates outstanding conceptual understanding and insightful application of relevant scientific evidence Information is communicated completely, accurately and concisely Seeks more information and asks insightful questions <p>When guidance is requested, the student appropriately and accurately informs the faculty and proposes excellent treatment options based on relevant scientific evidence</p>	<ul style="list-style-type: none"> Demonstrates conceptual understanding and insightful application of relevant scientific evidence Information is communicated effectively Seeks more information and asks insightful questions <p>When guidance is requested, the student appropriately and accurately informs the faculty and proposes treatment options based on relevant scientific evidence</p>	<ul style="list-style-type: none"> Demonstrates some gaps in understanding, clinical reasoning & problem solving. Foundation knowledge is incomplete and inaccurate. Minimal scientific evidence is incorporated into patient treatment 	<ul style="list-style-type: none"> Failed to demonstrate conceptual understanding, clinical reasoning, problem solving and application of relevant scientific evidence
Clinical Skill	<ul style="list-style-type: none"> Outstanding technical skill demonstrated Clinical procedures are accomplished somewhat independently and competently Follows faculty directions precisely 	<ul style="list-style-type: none"> Technical skill was appropriate for level of education Clinical procedures are accomplished with minimal instruction Follows faculty directions 	<ul style="list-style-type: none"> Faculty intervention was necessary to complete treatment or to get patient to an acceptable point for dismissal Need for minor deviation due to the student error (Treatment errors require minor additional treatment or a minor variation in planned treatment) 	<ul style="list-style-type: none"> Failed to demonstrate acceptable technical skills Failed to meet expectations for this level of education Does not follow faculty directions or proceeds with treatment beyond the ideal (or the expected norm) without informing faculty Treatment errors require additional treatment or a change in treatment

V. Administration

a. **Organizational Structure**

- i. What is the name of the major decision making body within your school?

1. Who sits on this Council, Committee, Board?

The faculty and administrators of the University of Florida College of Dentistry are committed to the concept of shared governance. One very important way that shared governance is made operational at the college is through the Faculty Assembly. The faculty of the college meets in assemblies to:

1. Establish rules and regulations of self-governance including the identification of the various standing committees and the election of their members;
2. Make recommendations to the Dean regarding academic policies on student affairs, pre-doctoral education, advanced education, continuing education, and research;
3. Disseminate and gather information of general and scientific nature.

The Assembly acts within the general policies, rules and regulations established by the Board of Trustees and the University, and those responsibilities assigned to administrative officers of the University are retained. These include the authority to call meetings of the faculty, to preside at such meetings, and to serve or to have representatives serve as ex officio members of all standing committees of the Assembly.

In addition, the Dean meets regularly with assistant and associate deans, chairs, and our Faculty Advisory Board. All three groups advise the Dean in decision making.

Furthermore, we have 12 standing committees (Advanced Education Committee, Clinical Affairs and Quality Assurance, Constitution Committee, Curriculum Committee, Faculty Development Committee, IT Steering Committee, Promotion and Tenure Committee, Research Committee, Strategic Planning Committee, Student Admission and Recruitment Committee, Student Affairs Committee, Student Performance Evaluation Committee) that serve in an advisory capacity to the Faculty Assembly and the Dean.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

We have 9 chairs of 9 departments. Restorative Dental Sciences is our largest department and as such has 3 division directors within the department. The

Department of Oral and Maxillofacial Diagnostic Sciences also has 3 division directors.

We have 8 associate and assistant deans: 6 are associate deans and 2 are assistant deans.

We have 11 Graduate Program Directors (including our new Operative Program) and 10 additional program directors of centers or other units.

iii. Provide school organizational tree if available.

VI. Ethics and Professionalism

a. Social Media

i. Have you had any student conduct issues related to the improper use of Social Media?

1. ex...the use of patient photos on Facebook
2. If so, provide examples.

Yes, we all have very strict guidelines about patient privacy and improper use of social media. We have only had a couple of issues related to improper use that were immediately addressed.

ii. How do you inform the students of their professional responsibilities?

We have a stream of professionalism courses that run throughout the four years. We also have a section in our student handbook and course syllabi to remind students about our expectations.

Excerpt from our student handbook:

Professional Behavior

The College of Dentistry expects all dental students to behave as professionals in their dealings with patients, colleagues, faculty and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings. The behavior of a dental student reflects on a student's qualification and potential to become a competent dentist. Attitudes and behaviors inconsistent with compassionate care, refusal by or inability of the student to participate constructively in learning or patient care, derogatory attitudes or inappropriate behavior directed at patient groups, peers, faculty or staff, or other unprofessional conduct can be grounds for dismissal.

In conferring the DMD degree, the University of Florida certifies that the student is competent to undertake a career as a dentist. It also certifies that in addition to competency in dental knowledge and skills, the graduate possesses those personal traits essential to the profession of dentistry. Professionalism encompasses altruism, accountability, compassion, duty, excellence and respect for others.

Monitoring, Reporting and Disciplining Variance in Student Professional Behavior

On occasion, a student may vary from the positive expression of the college's core values by displaying unprofessional behavior. Their actions may be directed not only to individuals but also to property. On such occasions, their behavior needs to be reported and acted upon by the College administration.

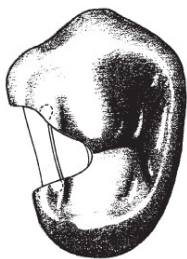
iii. What specific rules/guidelines do you have in place?

We issue a professional variance when unprofessional behavior is demonstrated. If a student is issued three variances, they fail the professionalism course in which they are enrolled. If the behavior warrants more immediate action, the student is referred to our Student Performance Evaluation Committee and a hearing is held to decide the most appropriate form of action.

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **The retention form is compromised with forces that can dislodge the amalgam toward the proximal.**
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation? **In the amalgam, the occlusion has to be evaluated and in each preparation the principles of retention form and resistance form must be achieved. We do not support retention grooves in composites.**
1. de Kok P, de Jager N, Veerman I, Hafeez N, Kleverlaan C and Roeters J. Effect of a retention groove on the shear bond strength of dentin-bonded restorations. JPD. 2016
2. Summit JB, Chan DC, Dutton FB. Retention of Class 3 composite restorations: retention grooves versus enamel bonding. Oper Dent 1993.
3. Muhlbauer JA, Dunn WJ, Roberts HW and Murchison DF. The Effect of Resin Composite pins on the Retention of Class IV Restorations. Jour Oper Dent 2002.
4. Caplan DJ, Deheny GE, Reinhardt JW. Effect of retention Grooves on fracture strength of class II composite resin and amalgam restorations.
5. Kuramochi G, Borie E, Orsi I, Del Sol M. Magnitude and distribution of stresses in composite resin and sound dentine interface with mechanical retentions. J Clin Exp Dent April 2015

**VCU**

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **We attempt to use the same criteria in preclinic and clinic. We also attempt to have the same faculty teach in both clinic and preclinic.**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible

for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **Students received training in cariology during the preclinical courses. When they are in the junior year (1st year in clinic) they are responsible for diagnosis, management and prevention of carious tissue. They have two competencies related to cariology. (Caries Risk Assessment and Carious Tissue Removal)**

DCG

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.

We are teaching ICDAS in the first operative course and also have already implemented a competency requirement on caries management.
2. How do others teach material removal, particularly OLD composite?
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations?
Students received a lecture from Dr. Valeria Gordan on repair vs replacement. She has been studying the topic and has published data for 10 years.
 1. Moncada G. et al. Longitudinal results of a 10-year clinical trial of repair of amalgam restorations. *Oper Dent* 2015; 40(1):34-43
 2. Gordan VV et al. The Decision to Repair or Replace a Defective Restoration is Affected by Who Placed the Original Restoration: Findings from the National Dental PBRN. *Tex Dent* 2015. 132 (7):448-58
 3. Gordan VV et al. Repair or replacement of restorations: A prospective cohort study by dentists in The National Dental Practice-Based Research Network. *J Am Dent Assoc.* 2015 Dec;146(12):895-903
 4. Gordan VV. Restorative material and other tooth-specific variables associated with the decision to repair or replace defective restorations: findings from the dental PBRN. *Tex Dent J.* 2014 Mar;131(3):219-31.
3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders? **The course director calibrates the faculty during the course and also prior to grading. The ideal number of graders depends of the number of categories to evaluate. Ideally, one faculty pair grades one category on every student's exam. This is not always possible, so one faculty grades a single criterion on each exam. At the end of the grading**

session, the faculty and course director review the failures to assess the faculty calibration.

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall? **In pre-clinic our students are taught to extend to 1.5 mm of axial depth for class II amalgams. In clinics the disease dictates the axial depth, but we encourage an ultraconservative approach to avoid pulp exposure.**
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? **It depends of the reaming dentin thickness. It is recommended that a liner is placed if the RDT is >0.5 mm, and then a base. If the depth is between 0.5 to 2 mm a base is recommended or a layer or RMGIC or flowable for stress breaking.**

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use. **We introduced SDF to the student clinics this semester. It is indicated for arresting carious lesions on high caries risk patients, elderly that have root caries, hard access lesions and for prevention in patients with radiotherapy or chemotherapy.**
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. **We do not use desensitizers containing HEMA under composite restorations.**

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?

Preclinical: There are four pre-clinical course and a total of 14 psychomotor examinations
Dental Anatomy: (3) psychomotors, wax on a central incisor, mandibular molar and maxillary molar.

Operative I: (3) psychomotors, Class V preparation and RBC restoration, Class III preparation and RBC restoration, and Class I preparation and RBC restoration.

Operative II: (4) psychomotors, Class II preparation, Class II Amalgam restoration, Class II RBC restoration, and Class II Complex RBC restoration.

Operative III: (4) psychomotors, Ceramic onlay preparation, Class IV layering RBC restoration, RBC Veneer and Porcelain veneer preparation

Clinical: There are three skills assessments in the junior year and four skills assessments in the senior year.

Junior year or level I: Caries Risk Assessment, carious tissue removal and Class V restoration

Senior year or level II: Class III, Class II, Class IV (with wax up) and Caries management.

2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry?

Dental anatomy has them carve a central incisor from a bar of soap before they start dental school. Instructions and a video are sent for early visual learning.

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?
 - a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units **In clinics we use E4D, Cerec and 3M**
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
 - b. Are students designing restorations?
2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation **x**
 - b. Selective etch and wash, generation ____
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - i. What evidence have you cited on which to base your choice?

1. Peumans M, De Munck J, Mine A, Van Meerbeek B. Clinical effectiveness of contemporary adhesives for the restoration of non-carious cervical lesions. A systematic review. *Dent Mater.* 2014 Oct;30(10):1089-103.
2. Peumans M, Kanumilli P, De Munck J, Van Landuyt K, Lambrechts P, Van Meerbeek B. Clinical effectiveness of contemporary adhesives: a systematic review of current clinical trials. *Dent Mater.* 2005 Sep;21(9):864-81. Review.
3. Peumans M¹, De Munck J, Van Landuyt KL, Poitevin A, Lambrechts P, Van Meerbeek B. A 13-year clinical evaluation of two three-step etch-and-rinse adhesives in non-carious class-V lesions. *Clin Oral Investig.* 2012 Feb;16(1):129-37.
4. Boushell LW, Heymann HO, Ritter AV, Sturdevant JR, Swift EJ Jr, Wilder AD Jr, Chung Y, Lambert CA, Walter R. Six-year clinical performance of etch-and-rinse and self-etch adhesives. *Dent Mater.* 2016 Sep;32(9):1065-72.
5. Wilder AD Jr, Swift EJ Jr, Heymann HO, Ritter AV, Sturdevant JR, Bayne SC. A 12-year clinical evaluation of a three-step dentin adhesive in noncarious cervical lesions. *J Am Dent Assoc.* 2009 May;140(5):526-35.

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other?

Our Caries Risk Assessment and Management program was created based on CAMBRA with some modifications. For example, we have included additional questions for assessment of dietary habits and xerostomia.

2. How does caries risk assessment manifest in the didactic/pre-clinical courses?

- a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?

The faculty member teaching CRA has Cariology training but belongs to the Operative Dentistry division.

- b. In which courses is caries risk assessment taught?

Operative I course (2nd semester) and more extensively on the Treatment Planning course (4th semester). Of note, the curriculum is currently being revised to allow the introduction of a new Cariology course. This course will concentrate all Cariology topics, including CRA.

- c. Is the teaching consistent across courses and disciplines?

The teaching of CRA is consistent among courses and disciplines mostly because is being touch in preclinic and clinic by the same group of faculty (Operative).

3. How does caries risk assessment manifest in the clinic?

- a. How is caries risk assessed and documented in patient records?

There is a CRA form in Axiom that is used for "Initial Assessment" and "Reassessment" . Once completed by the students, the forms are evaluated and "saved" in the patients' records by a faculty member.

- b. Do students medically manage caries when indicated?

No. When a medical condition is suspected and/or diagnosed, the patient is referred to its main physician.

- c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis?

Yes.

4. How is competency in caries risk assessment and management assessed over the four years of the curriculum?

We have 2 competencies on Caries Management that are : 1) based on the initial CRA and management program for 3DNs, and 2) based on the CRA reassessment, called Caries Management Case Completion for 4DNs (guidelines attached).

5. How does caries risk assessment manifest in the faculty practice at your institution?

The use of a CRA and management program in faculty practice varies from faculty to faculty. It is not mandatory as it is for the DMD clinics.



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

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2016 National Agenda

University of Kentucky

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses? **Advanced Esthetics**

b. What System? **We used Cerec II, III, and IV from about 2000 until 2015 when we switched to E4D Planmeca**

c. How long have you been using a CAD/CAM System? **16 years**

d. How are you using CAD/CAM in your pre-clinical courses?
Students are scanning preps and designing the restorations, we are milling the restorations and then cementing the crowns

e. What are the prerequisites for its use? **In class training with trained faculty**

f. When do students get to use it? **third year**

g. Who provides supervision? **Faculty and trained fourth year student**

h. What training did they receive? **Planmeca provided training to faculty**

ii. Are you using CAD/CAM in your clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES

a. Which courses? **RSD 831, RSD 841**

b. What System? **E4D**

c. How long have you been using a CAD/CAM System? **1 year**

- d. How are you using CAD/CAM in your clinical courses?
Selected patients and students are scanning intraorally, designing and milling in house
 - e. What are the prerequisites for its use? Premolars, students have completed the preclinical course.
 - f. When do students get to use it? When they request and the case is suitable, ie. premolar with supragingival margins
 - g. Who provides supervision? trained faculty
 - h. What training did they receive? Students receive training in third year advanced esthetics course, faculty received training by Planmeca
 - iii. Are you using virtual reality haptic feedback training?
 - 1. NO
 - a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? Exploring the possibilities of design and application at this time
 - i. What System? In house collaboration
 - b. How soon?
 - 2. YES
 - a. Which courses?
 - b. What System?
 - c. How long have you been using Virtual Reality Haptic Feedback Training?
 - d. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. NO
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. YES
 - a. What System? E4D, soon to go to 3shape
 - b. How long have you been using a Digital Impression System?
1 year
 - c. What are the prerequisites for its use? Advanced esthetics course

- d. When do students get to use it? **selected cases**
 - e. Who provides supervision? **trained faculty**
 - f. What training did they receive? **Various hands on courses including E4D, 3 shape**
 - v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO not yet**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? **yes**
 - b. What System? **Not yet decided**
 - c. How soon? **2017-2018**
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?
 - c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
 - vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. **Provide quality training, most are interested**
- b. Clinical Organizational Structure**
- i. How many pre-doctoral students do you have per class? **Aprox. 65, may decrease soon**
 - ii. What are your normal hours per clinical session? **9-12, 1-5**
 - iii. How are your clinical groups set-up? **5 teams for fourth year students, discipline-based for second and third year students**
 - iv. How do your clinical groups function? **Vertically. Second and third year students treat patients under disciplines after data collection and comprehensive care treatment planning. Fourth year students treat patients using the private practice model of comprehensive care. An advanced clinic with select students handles complex cases under Prosthodontic coverage**
 - v. How long have you had your current structure?
 - vi. Do you plan on changing in the near future? **We are continuously self-evaluating and tweeking our system**
- c. Screening**
- i. How are patients screened for acceptance into your pre-doctoral program? **Currently screened by faculty team leaders and some DS 3 are involved in Oral Dx. within this process.**
 - 1. Provide numbers screened and yield if available **1600/yr. screened**

- ii. Are you having difficulty finding suitable patients? **yes**
- iii. If so, what are the main reasons? **Cases are too complex**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?
 - 1. Do you use Carbamide Peroxide for caries control? **No**
 - 2. Do you use Sodium Diamine Fluoride for caries control? **This is being used in the Pediatric Graduate Program Clinic at UKCD and is being taught in the didactic Cariology course for undergraduate dental students**
- ii. What evidence do you have to support your use/non-use?

b. Caries Removal

- i. Do you teach total or partial caries removal? **Both are taught, total when RDT is adequate, partial with indirect pulp cap technique when RDT is not adequate and tooth is vital**

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **no**
- ii. Do you use bulk fill composite resin clinically? **no**
- iii. Which material(s) do you use?
- iv. What is your preferred technique for use?
- v. What evidence do you have to support your use/non-use?
There are no RCT to support use and address polymerization shrinkage and depth of cure issues of such a large bulk.

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? **Daily detailed rubrics including self-evaluation, OSCE, competencies to measure mastery**
- ii. Are students evaluated (graded) on their daily clinical procedures? **yes**
 - 1. If so, what metrics or methods are used? **Daily clinic sheet which includes self-eval and with very specific criteria**
- iii. Provide Rubrics if available.

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
Leadership Group
 - 1. Who sits on this Council, Committee, Board? **Deans, Program Directors, Division Chiefs, Select Faculty, Select Staff**

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? **Aprox. 25**
- iii. Provide school organizational tree if available. **We have an interconnected web, not a tree.**

VI. Ethics and Professionalism

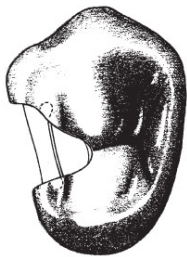
a. Social Media

- 1) Have you had any student conduct issues related to the improper use of Social Media? **We have a policy statement on this and annually, Med Center legal discusses the implications of the Social Media policy and appropriate behaviors, with specific attention being paid to privacy issues relative to HIPAA**
 - i.
 - 1. ex...the use of patient photos on Facebook
 - 2. If so, provide examples.
 - ii. How do you inform the students of their professional responsibilities? **At Orientation and in their student handbook, we provide them the information regarding the 3 relevant code on campus. Students Rights and Responsibility (all UK students); Health Care College Code of Professional Behavior and the UKCD Honor Code. We also host an hour long seminar with the first year student prior to White Coat on ethics and professionalism.**
 - iii. What specific rules/guidelines do you have in place?

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? *yes*
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation? *Yes for amalgam, not for composite. For composite bevel buccal and lingual cavosurface margins.*

**VCU**

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? *Self-assessment is part of every preclinical as well as clinical daily rubric. Pre-clinical rubrics tend to be a bit more detailed than clinical daily grades, however competencies follow pre-clinical rubrics.*
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? *Second year*

DCG

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.
2. How do others teach material removal, particularly OLD composite? *Assuming an asymptomatic situation, old composite is grossly removed, however deeper composite which is well-bonded need not be removed prior to replacement.*
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations? *We do not typically teach repair of amalgam. Composite may be repaired because it will bond to itself.*

3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders? *One examiner grades all of one criteria for consistency. Calibration is discussed and values agreed upon prior to commencement of grading.*

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall?
0.5mm into dentin, typically 1.25-1.5mm
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? When there is less than 0.5mm RDT it is necessary. *It may be used under amalgam when there is greater RDT if the required 1.5mm thickness of amalgam can be obtained.*

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use. *Yes, the application of SDF has just been added to the Cariology course for 1st year students. Material on this topic includes the efficacy of use of SDF, indications and contraindications, application process, etc. based on available evidence in conjunction with risk assessment. SDF has been used in the Pediatric Dentistry Graduate Program at UK. Although this material has been approved as a desensitizing agent, it is mostly used in the Pedo Department for high carries risk patients pre-surgery. Literature review on this topic is also included in this program.*
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. *no*

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? *No. The earliest skills development comes concurrently in dental anatomy with wax and in operative with handpieces, hand instruments, amalgam and composite. Both courses begin in the fall of the first year curriculum.*

UK

1. Are you currently utilizing digital impressions in the undergrad clinic?
 - a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions

- b. Are students designing restorations?
- 2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation____
 - b. Selective etch and wash, generation____
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - i. What evidence have you cited on which to base your choice?

**Southern CaMBRA Coalition
Agenda 2016**

- 1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other?
- 2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?
Cariology is a course which falls in the Restorative curriculum and is taught in the fall of the first year
 - b. In which courses is caries risk assessment taught? *Cariology primarily, but also in Oral Diagnosis/Oral Medicine and Operative*
 - c. Is the teaching consistent across courses and disciplines? *Yes, and Oral diagnosis/ oral Medicine Dept. is developing a course for DS1 Spring that integrates all disciplines taught in D1 Fall in order to establish an interdisciplinary approach in treatment planning decision making.*
- 3. How does caries risk assessment manifest in the clinic?
 - a. How is caries risk assessed and documented in patient records? *CRA is available in the EPH (Axium) at UK in all clinics including student, graduate, and faculty clinic. 4-day diet analysis form is available to be used in student clinic.*
 - b. Do students medically manage caries when indicated? *Unfortunately, this is not achieved for all patients in the undergraduate student clinic. As this is an emerging field, lack of faculty calibration and perception of value are impediments.*

- c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? *See (b) above. This is matriculating slowly.*
- 4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? *There is no system assessing competency in caries risk assessment at this point. Hopefully, we are able to establish them soon.*
- 5. How does caries risk assessment manifest in the faculty practice at your institution? *This is dependent upon individual provider philosophy. There is no standard protocol.*



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

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2016 National Agenda

UNC

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. *No*

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses? *Yes*

i. What System?

Trios 3 and 3M True Definition with Roland milling machine. Possibly Cerec system but not sure.

Depends on funding.

b. How soon? *Within the next two years*

c. Which courses?

d. What System?

e. How long have you been using a CAD/CAM System?

f. How are you using CAD/CAM in your pre-clinical courses?

g. What are the prerequisites for its use?

h. When do students get to use it?

i. Who provides supervision?

j. What training did they receive?

ii. Are you using CAD/CAM in your clinical courses? *No*

a. Do you plan on incorporating CAD/CAM clinically? *Yes*

i. What System? *Possibly adding Roland milling machine for use with 3 Shape Trios Scanner and 3M True Definition scanner*

b. How soon? *Within the next 2 years.*

c. Which courses?

d. What System?

e. How long have you been using a CAD/CAM System?

f. How are you using CAD/CAM in your pre-clinical courses?

g. What are the prerequisites for its use?

h. When do students get to use it?

i. Who provides supervision?

j. What training did they receive?

iii. Are you using virtual reality haptic feedback training? *No*

- a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses?
 - i. What System?
 - b. How soon?
 - c. Which courses?
 - d. What System?
 - e. How long have you been using Virtual Reality Haptic Feedback Training?
 - f. Who provides supervision?
 - i. What training did they receive?
 - ii. What System?
 - iii. How is it being used?
 - g. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses? **Yes**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System? *Trios 3 and 3M True Definition*
 - c. How soon?
 - d. What System?
 - e. How long have you been using a Digital Impression System?
About 2 years
 - f. What are the prerequisites for its use? ***Class Training Sessions, Students required to produce a scan on a classmate for practice supervised in clinic by faculty, Student required to get faculty approval for case to scan, Student required to get assigned to primary Cad/Cam Trained Faculty for cases, then can scan single crowns and 3-4 unit bridges.***
 - g. When do students get to use it? ***During Fall and Spring of DDS4 years***
 - h. Who provides supervision? ***Faculty trained in Cad/Cam use for 3M True Definition and 3 Shape Trios 3 scanners***
 - i. What training did they receive? ***See above. They have class training in summer DDS4 year. Then hands on practice in clinic on fellow students, then practice with faculty on student patients.***
- v. Are you using 3D printing for any pre-clinical or clinical application? **Yes**
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? **Yes**

- b. What System? **Envisiontec printer**
- c. How soon?
- d. How long have you been using 3D printing? **6 months**
- e. How do you use 3D printing? **Printing surgical guides**
- f. What are the prerequisites for its use? **Faculty supervised use only**
- g. When do students get to use it? **DDS4 year**
- h. Who provides supervision? **Faculty trained on 3D printer use.**
- i. What training did they receive? **Faculty received training from supplier and students do not receive training at this time. They can only observe.**
- vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc.
Organizing hands-on sessions for faculty will help.

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? **80-85**
- ii. What are your normal hours per clinical session? **3 hour clinic sessions; 10 Am -1PM and 2PM -5PM**
- iii. How are your clinical groups set-up? **20 students per group. One group practice director for each group. 2nd and 3rd year group practice directors manage 40 students. 20 from each class.**
- iv. How do your clinical groups function? **Group practice directors do treatment plans, work with patient care coordinator on patient assignments, faculty assignments in clinic etc.**
- v. How long have you had your current structure? **About 4 years.**
- vi. Do you plan on changing in the near future? **No.**

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
Approximately 500 patients
 - 1. Provide numbers screened and yield if available. **About half**
- ii. Are you having difficulty finding suitable patients? **Yes, for partial and complete denture**
- iii. If so, what are the main reasons? **Well-fitting dentures available at offices like 'Affordable Dentures' for cheaper and fewer appointments.**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients?

Fluoride, SDF, on very selective cases MI-Paste Plus

1. Do you use Carbamide Peroxide for caries control? **No**
2. Do you use Sodium Diamine Fluoride for caries control? **Yes**
- ii. What evidence do you have to support your use/non-use?

J Dent Res 88(2):116-125, 2009

Ismail et al. BMC Oral Health 2015, 15(Suppl 1):S9

b. Caries Removal

- i. Do you teach total or partial caries removal? **Selective Caries removal**

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **No**
- ii. Do you use bulk fill composite resin clinically? **Yes in DDS 4 clinics**
- iii. Which material(s) do you use? **Surefil SDR and Sonic Fill**
- iv. What is your preferred technique for use? **Depends on the preparation design and difficulty of the restoration.**
- v. What evidence do you have to support your use/non-use?

Van Ende A, De Munck J, Van Landuyt K, Van Meerbeek B. Effect of Bulk-filling on the Bonding Efficacy in Occlusal Class I Cavities. J Adhes Dent. 2016;18(2):119-24

Ilie N, Schöner C, Bücher K, Hickel R. An in-vitro assessment of the shear bond strength of bulk-fill resin composites to permanent and deciduous teeth. J Dent. 2014 Jul;42(7):850-5.

Juloski J, Carrabba M, Aragonese JM, Forner L, Vichi A, Ferrari M. Microleakage of Class II restorations and microtensile bond strength to dentin of low-shrinkage composites. Am J Dent. 2013 Oct;26(5):271-7

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences?

PRECLINICAL:

Written evaluations: There are three written (multiple choice) evaluations.

To pass the course, a student must have at least a 70/100 average on the written evaluations.

Laboratory evaluations: The laboratory grade will constitute 50% of the final grade.

The laboratory grade will consist of 3 practical evaluations. To pass the course, a student must have at least a 70/100 average on the three Practical Evaluations and must have a passing grade (C or higher) in at least two of those three practical evaluations.

Quizzes: Announced and unannounced quizzes will constitute 5% of the final grade.

CLINICAL:

Daily grades: Daily grades include elements of preparedness (health history, diagnosis, caries risk assessment, material selection, treatment appropriateness, etc.), technical standards (tooth preparation and restoration skills and knowledge), and professionalism and ethics (documentation, infection control, communication with patient, time management, professional attitude, etc.);

Operative points: Each clinical procedure will be given both a weight (based on complexity) and a grade (based on performance) as described above. These two factors will be combined to provide a "points" designation for the completed clinical procedure. Thus, you receive more points for greater complexity and higher grades. Students earn Operative points based on their daily grades and procedure complexity. To successfully complete Clinical Operative Dentistry, students must acquire 175 points by the end of the DDS-3 year; with at least 35 of these points being completed by the end of the DDS-2 year. These benchmarks represent minimal Operative Dentistry experiences we believe students should have to advance from DDS3 to DDS4. There are no numerical requirements in terms of number of procedures;

Clinical Independent Assessment: In addition to showing a minimum level of Operative Dentistry experiences, students must complete two independent clinical Independent Assessments before they can advance to DDS4. These competencies include domains of preparedness, professionalism & ethics, patient & practice management, informatics, critical thinking/judgement, technical skills, and communications & interprofessional skills, and have elements of student self-assessment and self-reflection.

- ii. Are students evaluated (graded) on their daily clinical procedures? **Yes**
 - 1. If so, what metrics or methods are used? **Point system, mentioned above**
- iii. Provide Rubrics if available.

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
Curriculum committee
 - 1. Who sits on this Council, Committee, Board? **Associate Dean of Academics, Group practice directors, DDS Course directors, Allied**

Dental health faculty representative, Basic sciences course directors.

- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?

1. *Interim Dean: Dr. Kenneth May, Jr.*
2. *Executive Associate Dean: Dr. Michael Roberts*
3. *Associate Dean for Research: Dr. Eric Everett*
4. *Associate Dean for Advancement: Mr. Paul Gardner*
5. *Associate Dean for Financial Affairs: Jacqueline Schroeders*
6. *Associate Dean for Education: Dr. Edward Swift, Jr.*
7. *Associate Dean for Clinical Affairs: Dr. Darryn Weinstein*
8. *Assistant Dean for Student Affairs: Dr. Matthew Morano*
9. *Assistant Dean for Admissions and Predoctoral Education: Dr. Mary Pettiette*
10. *Assistant Dean for Graduate/Advanced Education: Dr. Ceib Phillips*
11. *Assistant Dean for Computing and Information System: Mr. David Rankin*

8 department chairs

8 directors

12 graduate program directors

- iii. Provide school organizational tree if available.

VI. Ethics and Professionalism

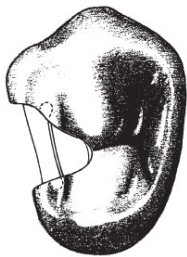
a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media? **Yes**
 1. ex...the use of patient photos on Facebook
 2. If so, provide examples. ***Sealed records***
- ii. How do you inform the students of their professional responsibilities?
Policies and protocols on professionalism, dress code etc
- iii. What specific rules/guidelines do you have in place?
Compliance policies are in place. Violation of policies will be addressed by the committee regulating the requirement.

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced?
Yes
2. Is retention needed in the conservative amalgam preparation as indicated? **Generally, we don't teach use of retention grooves in a conservative preparation for amalgam restoration. In the absence of a dovetail as shown in the illustration below, the retention grooves may be necessary.**
3. In the conservative composite resin preparation? **No**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses?
The rubrics used in preclinical course is not used in clinics. Most full time faculty who teach in clinics are familiar with the preclinical rubric. We provide an information session for adjunct faculty to calibrate them. However, there's room for improvement in the area of faculty calibration.
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram?

Cariology is introduced in preclinical course. They are expected to chart active/inactive, and cavitated/non-cavitated caries on the odontogram as early as Spring of DDS 2.

DCG

1. How other colleges are teaching ICDAS?
As part of didactic courses (pre-clinical) and as part of operative competencies (diagnosis and treatment planning)

- a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.
2. How do others teach material removal, particularly OLD composite?

We teach them that both composite and amalgam restorations can be repaired depending on the extent of the defect.

 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations?

We don't have a rubric
3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders?

We have one person grade 1 or 2 criteria for a preparation or restoration. For example, while grading a preparation for amalgam restoration, one faculty grades 'axis' and 'pulpal wall depth', another grades 'axial wall depth' and 'isthmus width' and so on... The whole preparation will be graded by 5-6 faculty but one faculty consistently grades the same criteria for all 80-85 students.

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall?

Depends on the extent of caries clinically but in preclinical course without caries simulation these are the guidelines provided: Ideal $\leq 0.5\text{mm}$ internal to DEJ, Acceptable $\leq 1.0\text{mm}$ internal to DEJ, Unacceptable $\geq 1.5\text{mm}$ internal to DEJ
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used?

Students are instructed to use radiographs to help make this decision but at about 0.5mm of remaining dentin thickness, they are instructed to place pulp protection.

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use.

Graduate clinic - Yes
Predoc clinic - Not yet
We mainly use it for arresting caries.
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps.

Yes. We use Gluma and G5 and follow the manufacturer's instruction.

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?

Preclinical Laboratory evaluations: The laboratory grade will constitute 50% of the final grade. The laboratory grade will consist of 3 practical evaluations. To pass the course, a student must have at least a 70/100 average on the three Practical Evaluations and must have a passing grade (C or higher) in at least two of those three practical evaluations.

Clinical Independent Assessment: In addition to showing a minimum level of Operative Dentistry experiences, students must complete two independent clinical Independent Assessments before they can advance to DDS4. These competencies include domains of preparedness, professionalism & ethics, patient & practice management, informatics, critical thinking/judgement, technical skills, and communications & interprofessional skills, and have elements of student self-assessment and self-reflection.

2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry?

No

UK

1. Are you currently utilizing digital impressions in the undergrad clinic? **Yes**
 - a. If so, in what manner? **All of the options listed below**
 - i. scanning intraorally, inlays, onlays, single units
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
 - b. Are students designing restorations? **No**
2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation - **Two step etch and rinse system (Optibond Solo Plus, Kerr)**
 - b. Selective etch and wash, generation - **We will soon be making a change to self-etch adhesive system.**
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - e. *What evidence have you cited on which to base your choice?*

Wilder AD Jr1, Swift EJ Jr, Heymann HO, Ritter AV, Sturdevant JR, Bayne SC. A 12-year clinical evaluation of a three-step dentin adhesive in noncarious cervical lesions. J Am Dent Assoc. 2009 May;140(5):526-35.

Van Meerbeek B1, Peumans M, Poitevin A, Mine A, Van Ende A, Neves A, De Munck J. Relationship between bond-strength tests and clinical outcomes. Dent Mater. 2010 Feb;26(2):e100-21.

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other?

UNC Caries Risk Assessment

2. How does caries risk assessment manifest in the didactic/pre-clinical courses?

Lectures, Hands-on and clinical (students exams of each other) experiences

- a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?

Operative Department, Pediatric Dentistry

- b. In which courses is caries risk assessment taught?

Cariology, Pediatric Dentistry

- c. Is the teaching consistent across courses and disciplines?

Consistent across all operative courses and pediatric dentistry courses.

3. How does caries risk assessment manifest in the clinic?

CRA is part of the patient data collection

- a. How is caries risk assessed and documented in patient records?

Specific CRA form

- b. Do students medically manage caries when indicated?

Students are instructed to prescribe Fluoride when indicated. Ww are working on trying to make sure it is more consistent

- c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis?

Unfortunately not across the board. Some practice groups enforce the management of dental caries more than others. We are currently making changes to make this more consistent

4. How is competency in caries risk assessment and management assessed over the four years of the curriculum?

As part of didactic courses (pre-clinical) and as part of operative competencies (diagnosis and treatment planning)

5. How does caries risk assessment manifest in the faculty practice at your institution?

The same electronic data record is used. Some faculty use it more consistently than others.



Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

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2016 National Agenda

VCU

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses? **Yes.**

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES

a. Which courses?

DENS 516 (Pre-Clinical): Clinical Skills II (Transition Module in the summer session): D-1s (who are Rising D-2s) = Scanning (save case)

DENS 625.01 Clinical Skills III (Pre-Clinical) (D-2 Fall) = Margin Marking/Restoration Proposal (on previously saved case)

Clinical Skills IV (Pre-Clinical) (D-2 Spring) = Onlay Scan/Margins/Restoration proposal on their typodont prepared teeth.

PROS 622.01 & 623.L01: Preclinical Fixed Prosthodontic Lecture and Lab (D-2 Spring) = Scanning/Margin Marking/Restoration Proposal (save case)

(D-3 Fall/Spring) = Mill/Polish/Deliver on Typodont (on previously saved case)

b. What System? **Planmeca/E4D, Compare**

c. How long have you been using a CAD/CAM System? **Began incorporating scanning in the D2 pre-clinical fixed prosthodontic courses possibly as early as 2014.**

d. How are you using CAD/CAM in your pre-clinical courses? **See a.**

e. What are the prerequisites for its use? **For the Transition Module, students have to complete an online training prior to their rotation. For the other pre-clinical and clinical experiences there are online modules that students need to complete.**

f. When do students get to use it? **See above.**

g. Who provides supervision? **Faculty trained in its use.**

h. What training did they receive? **Planmeca University course and instruction; some faculty also have taken additional C.E. courses/seminars on this topic and are experienced in using the software clinically.**

ii. Are you using CAD/CAM in your clinical courses? [CAD/CAM is being utilized in clinic on a limited case-by-case basis at the present moment. See answer below.](#)

1. **NO**

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. **YES:** [We have done ~8-9 CAD/CAM Crowns in house with D4 students in clinic by two of our GPG Leaders. Our goal is to have at least one student in each D4 Group practice \(8 groups\) to complete at least one CAD/CAM crown by the end of this semester \(Fall 2016\) and have all D4 students at least have seen or assisted one CAD/CAM crown procedure done in the clinic by the end of Spring 2017.](#)

a. Which courses? [See above](#)

b. What System? [Planmeca/E4D](#)

c. How long have you been using a CAD/CAM System? [Fall 2016](#)

d. How are you using CAD/CAM in your pre-clinical courses? [Most pre-clinical courses have started integration this year \(2016\)](#)

e. What are the prerequisites for its use? [See previous answers above](#)

f. When do students get to use it? [See previous answers above](#)

g. Who provides supervision? [See previous answers above](#)

h. What training did they receive? [See previous answers above](#)

iii. Are you using virtual reality haptic feedback training?

1. **NO**

a. Do you plan on incorporating Virtual Reality Haptic Feedback Training in your pre-clinical courses? [Not at this time.](#)

i. What System?

b. How soon?

2. **YES**

a. Which courses?

b. What System?

c. How long have you been using Virtual Reality Haptic Feedback Training?

d. Who provides supervision?

i. What training did they receive?

- ii. What System?
 - iii. How is it being used?
 - e. Is it efficacious?
- iv. Are you using an Intraoral Digital Impression system in your clinical courses?
 - 1. **NO**
 - a. Do you plan on incorporating Digital Impressions in your clinical courses?
 - b. What System?
 - c. How soon?
 - 2. **YES** It is being used in clinic on a limited basis.
 - a. What System? Planmeca/E4D
 - b. How long have you been using a Digital Impression System? Since Fall 2016
 - c. What are the prerequisites for its use? Appropriate case selection and supervised by trained faculty.
 - d. When do students get to use it?

Fall 2016 in a limited basis, at least 1 case per D4 group practice

Spring 2016, all D4 will at least have seen it done in clinic.

Phase 1 (sometime in Spring 2017) we will have CAD/CAM center

•2 Chairs

1 CAD/CAM trained assistant

2 scanners/lap tops/carts

Milling in CAD/CAM learning center

4 sessions/wk = 8 pts/wk. (Use Friday for equipment maintenance and supply ordering).

Phase 2 (Summer 2017 or Fall 2017)

•4 Chairs/2 Assistants = 16 pts/wk

- e. Who provides supervision? Currently three trained faculty. Soon, trained Group (GPG) Leaders and GP faculty.
 - f. What training did they receive?
 - v. Are you using 3D printing for any pre-clinical or clinical application?
 - 1. **NO** Currently NO
 - a. Do you plan on incorporating 3D printing in your pre-clinical or clinical courses? It will be in D2 Dental implant course (Pre-Clinical)
 - b. What System? Form 2 (Formlabs)
 - c. How soon? Spring 2017
 - 2. **YES**
 - a. What System?
 - b. How long have you been using 3D printing?

- c. How do you use 3D printing?
 - d. What are the prerequisites for its use?
 - e. When do students get to use it?
 - f. Who provides supervision?
 - g. What training did they receive?
 - vi. How to get faculty on board with integration of technology in clinic – Intraoral Scanner, CAD/CAM, Laser, etc. We are in the process of developing core faculty on CAD/CAM as well as 3D printing. The core faculty will be trained and calibrated. This core faculty ~4-8 faculty members will supervise students in training for each technology as well as the use of the core facility. Communication has occurred with Course directors individually regarding the integration. In addition, annual CE update for in house technologies will help in the integration.
- b. Clinical Organizational Structure
 - i. How many pre-doctoral students do you have per class? approximately 97 the first year, and 107 at the beginning of year 2 (addition of 10 IDP students)
 - ii. What are your normal hours per clinical session? M-F: 8AM-12:15PM, 1:30-4:30PM, except for Wednesday P.M. when the pre-doctoral clinic is limited to general screenings and a D2 Clinical Skills course, and Friday P.M. Clinic which has limited chairs available.
 - iii. How are your clinical groups set-up? 8 General Practice Groups (GPGs) for the pre-doctoral students
 - iv. How do your clinical groups function? Each GPG has a GPG Leader, and students are assigned to their GPG their first year.
 - v. How long have you had your current structure? The 8 GPGs were established in 2010 (?), and the current clinic schedule in 2015.
 - vi. Do you plan on changing in the near future? Not to my knowledge.
- c. Screening
 - i. How are patients screened for acceptance into your pre-doctoral program? There is a general screening by faculty for patients on Wednesday afternoons, and then screenings also occur during regular clinic hours by pre-doctoral students in each GPG.
 - 1. Provide numbers screened and yield if available N/A
 - ii. Are you having difficulty finding suitable patients?
 - iii. If so, what are the main reasons? Cost and parking issues?

II. Cariology HERE

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? OTC fluoride rinse, xylitol gum and prescription for PreviDent 5000Plus for moderate, high-risk and extreme-risk patients, adding MI Paste for those with dry mouth, and baking soda rinses for extreme. We follow CAMBRA guidelines for the use of antibacterials, and recognize the ADA chairside guideline as well. Please see attachments.
 1. Do you use Carbamide Peroxide for caries control? No.
 2. Do you use Sodium Diamine Fluoride for caries control? We use it to attempt remineralization on specifically indicated cases.
- ii. What evidence do you have to support your use/non-use? Horst JA, Ellenikiotis H, Milgrom PL. UCSF Protocol for Caries Arrest Using Silver Diamine Fluoride: Rationale, Indications and Consent. J Calif Dent Assoc. 2016 Jan;44(1):16-28.

b. Caries Removal

- i. Do you teach total or partial caries removal? In Cariology, partial caries removal is taught. The philosophy in the Cariology course currently is that there is no need to re-enter the tooth to place a definitive restoration, and that the glass ionomer restoration can stay unless or until it becomes compromised and requires replacement. If soft infected dentin is removed, leaving affected dentin and the DEJ margin has approximately 2mm of clean dentin (an arbitrary number as I understand), the tooth can be sealed sufficiently to allow any bacteria to go dormant and for the pulpal-dentinal complex to form reparative dentin. We are suggesting Theracal for direct and indirect pulp caps.

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? We teach about this material in the lecture portion of the course, but have not used it pre-clinically.
- ii. Do you use bulk fill composite resin clinically? Not in the pre-doctoral clinic.
- iii. Which material(s) do you use? For the bottom of the box of a Class II composite, we use a very small amount of Kerr Revolution flowable, which is then cured together with the first very small increment of Z250 Hybrid. We use the Z250 for the remainder of the restoration.
- iv. What is your preferred technique for use? See above.
- v. What evidence do you have to support your use/non-use? Placing the first increment of hybrid composite into the box and condensing it into place using the small end of the condenser after placing a small amount of flowable in the bottom of the box helps to further push the flowable into

all of the areas of the bottom of the box, providing for a restoration that is well-adapted to the margins, preventing or reducing microleakage.

“It has been postulated that any favorable effects on limiting microleakage may be caused by improved adaptation to cavity walls” [30] and stress-reducing effect of the lower stiffness of flowable composite resin....

30. Puetzfeldt A, Asmussen E. Composite restorations: influence of flowable and self-curing resin composite linings on microleakage in vitro. *Oper Dent* 2002;27(6):569–75. [Cited in Puckett et al. *Direct Composite Restorative Materials*. *Dent Clin N Am* 51 (2007) 659–675.]

“When a stiffer or packable composite is used for the restoration of the proximal box, a very small increment of a flowable composite first in the proximal box can be used to improve marginal adaptation of the restoration.” (Heymann 274;279)

60. Chuang, SF, Jin, YT, Liu, JK, et al.: Influence of flowable composite lining thickness on Class II composite restorations. *Oper Dent*. 29(3), 2004, 301–308.

61. Olmez, A, Oztas, N, Bodur, H: The effect of flowable resin composite on microleakage and internal voids in class II composite restorations. *Oper Dent*. 29(6), 2004, 713–719.

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? [This varies by course and department. For the Department of General Practice Dentistry for example:](#)

[The graded components of the \[D4 Clinical General Practice Dentistry\] course will consist of:](#)

Competencies	24.0%
Mock Licensure Board Examination	6.0%
Clinical points	35.0%
Comprehensive care patients: Sufficient clinical experiences and faculty evaluations	35.0%

- ii. Are students evaluated (graded) on their daily clinical procedures? [Daily clinical procedures, not competencies, are evaluated through Professional Judgment of Progression of Competency Evaluations, performed 4 times a year. If the evaluation process deems the student's progress as Marginal or Unsatisfactory, the course director will establish measures to facilitate the student's improvement.](#)
 1. If so, what metrics or methods are used? [Please see above.](#)
- iii. Provide Rubrics if available. [Attached.](#)

V. Administration**a. Organizational Structure**

- i. What is the name of the major decision making body within your school? [I believe that would be the Administrative Committee.](#)
 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have? [Dean, All 9 Chairs, Director of Philips Institute for Oral and Craniofacial Molecular Biology, Senior Associate Dean, Assistant Dean for Clinical Education, Senior Associate Dean for Student Services, Representatives from Steering Committee, Associate Dean for Clinical Education, Executive Associate Dean, Associate Dean for Development and Alumni Affairs, Assistant Dean for Research.](#)
- iii. Provide school organizational tree if available. [N/A](#)

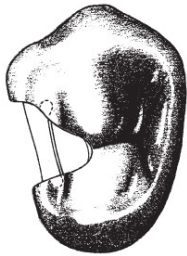
VI. Ethics and Professionalism**a. Social Media**

- i. Have you had any student conduct issues related to the improper use of Social Media? [Not to my knowledge.](#)
 1. ex...the use of patient photos on Facebook [N/A](#)
 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities? [In our course syllabi we include links to the University's policies \(Student Code of Conduct, VCU Honor System, etc.\) as well as School policies \(Guidelines Governing Examinations and Laboratory Assignments, etc.\).](#)
- iii. What specific rules/guidelines do you have in place? [Some links include:
<http://www.policy.vcu.edu/sites/default/files/Honor%20System%20-%20Interim.pdf>,
<http://policy.vcu.edu/sites/default/files/Student%20Code%20of%20Conduct.pdf>,](#)

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **Yes. You can also place a sealant on the remaining occlusal surface if indicated.**
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation? **I think it would be a good idea for the amalgam; no for composite.**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **To my knowledge, most if not all pre-clinical laboratory courses have a self-assessment component of their rubrics used in daily exercises and/or exams. There are also self-assessment components in our clinical competencies. We are in the process of trying to better align our pre-clinical rubrics with our clinic rubrics as part of our Strategic Plan in the Dept. of General Practice Dentistry. Pre-clinical and Clinical Course directors have been discussing this, and it was also a topic at our most recent department retreat.**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? **D3 year.** Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **D2 year.**

DCG

1. How other colleges are teaching ICDAS? **In the D-1 Operative dentistry course, ICDAS is introduced as well as some basic ICCMS guidelines. We have further ICDAS instruction in the D-2 Cariology course, and students can properly assign ICDAS codes by the end of the fall semester.**
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the

new non-surgical mgt competency required from CODA which is coming. A representative from VCU, Dr. Susie Goolsby, attended the CAMBRA meeting at the midwest operative meeting in Chicago, and the National CAMBRA coalition meetings. VCU was represented in the group that supported the changes in CODA regarding Caries management.

2. How do others teach material removal, particularly OLD composite? High-speed handpiece with water-spray and high-evacuation suction for both amalgam and composite removal. For composite, one should assess frequently to make sure only composite only is being removed. Check with an explorer.
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations? We use guidelines from the Sturdevant text 6th ed. (pp.225-226), and indicate repair mainly for localized defects. As stated in Puckett et al. "Direct Composite Restorative Materials". Dent Clin N Am 51 (2007) 659–675, "Composite repair may be accomplished if a patient has a localized defect."
3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders?
For pre-clinical operative, the Course Director assigns a category (such as Gingival Floor) to each faculty. If there are 7 categories, 7 faculty will each have their own category. All faculty grade only their category on every tooth (assembly line style), the grade is calculated from this, verified and recorded by the Course Director, and this way every tooth gets graded the same. Prior to beginning the grading, faculty are calibrated individually with the Course Director on their own category, and then as a whole group: approximately 10 teeth are graded and discussed, to get everyone calibrated, before the official grading begins. Our pre-clinical laboratory practical exams are labelled as such and are not called competencies.

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall?
We follow the Sturdevant text 6th ed. regarding axial wall depth on a Class II amalgam preparation: "If no retention grooves needed, axial depth 0.2 mm inside (internal to) the dentinoenamel junction (DEJ).... If retention grooves needed, axial depth 0.5 mm inside (internal to) the DEJ". (346) For the pre-clinical operative course, we teach 1.25-1.4mm gingival floor width.
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used?
Here also, we follow the Sturdevant text 6th ed. (p. e37) that provides these guidelines in relation to remaining dentin thickness: For an amalgam and composite, if the RDT is >2mm, base or pulpal protection is not needed. For amalgam if the RDT is 0.5-2.0mm, a base (we use Vitrebond Plus) is recommended. We teach that the text states in this situation a liner/base

would not be need for composite as it is more insulative than amalgam; however, we leave that up to the discretion/judgment of the instructor. For amalgam and composite that has RDT <0.5mm, pulpal protection is needed for both amalgam and composite, and we use Theracal. We used to teach using Dycal with Vitrebond covering the Dycal, but with Theracal, we no longer place Vitrebond on top of it but place multiple cured layers of Theracal as needed.

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use.
Yes. At VCU, we have Advantage Arrest, which contains 38% Silver Diamine Fluoride. It can be used as a dentin desensitizing agent and for remineralization around margins of crowns and restorations. It may stain composite restorations. It is not to be used on more than six sites per visit.
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. We currently do not teach using Gluma under composite resin restorations. However, Gluma is available in our clinics for sensitivity.

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?
Pre-Clinical Operative (D1 Year): DentSim class I amalgam preparation, DentSim class II amalgam preparation, manikin simulation class II amalgam preparation, manikin simulation class II amalgam restoration, manikin simulation class II composite restoration, manikin simulation class IV composite restoration, manikin simulation complex composite restoration
Clinical Skills Course (D2 Year): These skills assessments are termed "Challenges" of which there are 2:
 1. #4-DO amalgam preparation and #13-DO amalgam restoration manikin simulation
 2. #4-DO composite restoration and #13-DO preparation manikin simulation
Clinical Competencies:
D3 Year: See below
D4 Year: Competencies count for 24% of Clinical General Practice grade :
 Treatment Planning - 11%
 Operative Dentistry - 9%:
 1. Class II amalgam restoration (threshold) D3 year
 2. Class II composite restoration or a conservative slot composite restoration (threshold) D3 year
 3. Class III composite restoration (3% of final grade)
 4. Cuspal coverage amalgam restoration (3% of final grade)
 5. Class IV composite restoration (involving the incisal edge). A direct composite facial veneer may be substituted (3% of final grade) .
 Operative Dentistry Quality Review - 4%

2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? **Not to my knowledge.**

UK

1. Are you currently utilizing digital impressions in the undergrad clinic? **Yes, Planmeca/E4D**
- a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units **Currently Crowns, onlays and inlays.**
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions **We can but this is not our current goal.**
 - b. Are students designing restorations? **See National Agenda section.**
2. What bonding technique are you currently using for direct operative? **We are using a 5th generation: etch and rinse, primer and adhesive in one: Optibond Solo Plus.**
- a. Total etch and wash, generation
 - b. Selective etch and wash, generation
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - i. What evidence have you cited on which to base your choice? **"In vitro dentin bond strengths have improved so much that they approach the level of enamel bonding.²⁷ Therefore, much of the research and development (R&D) has focused on the simplification of the bonding procedure. A number of dental materials manufacturers are marketing a simplified, two-step etch-and-rinse adhesive system. Some authors refer to these as fifth-generation adhesives, and they are sometimes called 'one-bottle' systems because they combine the primer and bonding agent into a single solution. A separate etching step still is required.**
Numerous simplified bonding systems are available, including...OptiBond SOLO Plus (Kerr Corporation)..."(Heymann 123-124)
Heymann, Harold, Edward Swift, Andre Ritter. Sturdevant's Art and Science of Operative Dentistry, 6th Edition. Mosby, 2013.
27. Swift, EJ, Perdigao, J, Heymann, HO, et al.: Enamel bond strengths of "one-bottle" adhesives. Pediatr Dent. 20, 1998, 259–262.

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? [CaMBRA](#)
2. How does caries risk assessment manifest in the didactic/pre-clinical courses? [Caries Risk Assessment is introduced in the D1 Operative Course, and then taught more in depth in the D2 Cariology course. It is taught in the D2 Cariology course, and is then used with each IOE and yearly recall. The CRA form in axiUm is CAMBRA based. In the D3 year, the students must complete a caries risk and management competency. The Cariology Course Director introduces the competency in the D2 year. The students are reassessed in the D4 year as well. The faculty have been calibrated and are calibrated to correctly assess risk, as well, and are instructed to review all forms completed during the IOE and recall appointments.](#)
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others? [Please see above.](#)
 - b. In which courses is caries risk assessment taught? [Please see the above.](#)
 - c. Is the teaching consistent across courses and disciplines? [I think so. The D1 Operative Course Director is in communication with the Cariology Course Director, who also contributes a reading assignment and online assignment in the D1 operative dentistry course.](#)
3. How does caries risk assessment manifest in the clinic? [We have a form in axiUm that the students complete.](#)
 - a. How is caries risk assessed and documented in patient records? [We have a form in axiUm and also our notes template includes this. We also have Caries Risk dental codes.](#)
 - b. Do students medically manage caries when indicated? [Yes](#)
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? [Yes](#)
4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? [Please see #2 above.](#)
5. How does caries risk assessment manifest in the faculty practice at your institution? [Every patient in the school including those in F.P., have a chart in axiUm, which have the same items regarding CRA as described above.](#)

CAMBRA Reference Chart

Low	OTC fluoride toothpaste BID Oral hygiene instruction Dietary recommendations	6-12 month recall Radiographs every 24-36 months
Moderate	All of the above plus: Fluoride varnish at each recall 0.05 % NaF rinse BID Xylitol gum 6-10g/day, chew 6-10 pieces/day <ul style="list-style-type: none"> - Spry® - Search '100% xylitol gum' online Consider sealants	4-6 month recall Radiographs every 18-24 months
High	All of the above plus: 5000 ppm toothpaste BID Assess saliva <ul style="list-style-type: none"> - Test for flow and pH - Clinical description may suffice Acidogenic bacterial load test <ul style="list-style-type: none"> - If needed, 10ml 0.12% CHX rinse for 1 minute at night <i>at least 1 hour apart from using fluoride</i> for one week each month. Retest at recall. 	3-4 month recall Radiographs every 6-18 months
Extreme High	All of the above plus: pH neutralization <ul style="list-style-type: none"> - sodium bicarbonate rinse or sipping (2 tsp NaHCO₃ in 8 oz water) - CariFree® CTx2™ spray, www.carifree.com or search online 'CTx2 spray' Calcium phosphate supplement <ul style="list-style-type: none"> - MI Paste® - Trident® w/ Recaldent® Consider rx sialogogue if trial dose increases salivary flow after 30 minutes (test) <ul style="list-style-type: none"> - pilocarpine or cevimeline 	3 month recall Radiographs every 6 months until no new lesions

Name:

Date:

EXTREME RISK

Our assessment reveals you are at EXTREME RISK of having dental decay in the near future. This is due mainly to your dry mouth. We want to help you reduce that risk and avoid new decay if at all possible. We recommend the following:

For you to do at home and between visits:

- **Use an ADA approved 0.05% fluoride rinse from the dental care section of any store**
 - Often referred to as 'Anticavity'
 - Act®
 - Insure ADA approval if purchasing generic form to insure proper release of fluoride
- **Chew 6 to 10 pieces of 100% xylitol-sweetened gum each day**
 - Spry®
 - Search online for '100% xylitol gum'
- **Use a high fluoride toothpaste**
 - 5,000 parts per million fluoride twice daily in place of your regular toothpaste. Your dentist can prescribe some for you.
- **Take measures to reduce the acidity of your mouth due to your lack of saliva**
 - Rinse with or sip frequently a mixture of 2 teaspoons of baking soda in 8 ounces of water
 - Use an over-the-counter product such as CTx2™ spray, by CariFree®, available online
- **Take measures to replace critical ions for fighting tooth decay that are missing due to your dry mouth**
 - MI Paste®
 - Trident® w/ Recaldent®
- **Follow dietary recommendations made by your dentist, which may include:**
 - Reducing your daily intake of carbonated and/or sweetened beverages (ex. "soda", sweet tea)
 - Reducing your frequency of snacks that contain fermentable carbohydrates (ex. sugary sweets, candy, crackers, cereals)
- **If recommended by your dentist, consider a daily medication that may increase your saliva flow**
- **If recommended by your dentist, use the prescribed antibacterial mouth rinse as directed**

For you to do with your dentist:

- **Return for a caries recall exam in 3 months**
 - This evaluates your progress and checks for any new dental decay
- **Get new radiographs (x-rays) every 6 months**
 - This will check for cavities between your teeth or in other areas that are not directly visible
- **Get a fluoride varnish for all of your teeth every 3 months at your caries recall exams**
- **Get sealants applied to the biting surfaces of your back teeth**
 - This helps prevent re-infection of cavity-causing bacteria
- **Complete tests assessing the quality and quantity of saliva and bacteria in your mouth**
 - This measures the amount of cavity-causing bacteria in your mouth. If excessive, it may be recommended that you use an antibacterial rinse at home to reduce this level of infection.

Name:

Date:

HIGH RISK

Our assessment reveals you are at a HIGH RISK of having dental decay in the near future. We want to help you reduce that risk and avoid new decay if at all possible. We recommend the following:

For you to do at home and between visits:

- **Use an ADA approved 0.05% fluoride rinse from the dental care section of any store**
 - Often referred to as ‘Anticavity’
 - Act®
 - Insure ADA approval if purchasing generic form to insure proper release of fluoride
- **Chew 6 to 10 pieces of 100% xylitol-sweetened gum each day**
 - Spry®
 - Search online for ‘100% xylitol gum’
- **Use a high fluoride toothpaste**
 - 5,000 parts per million fluoride twice daily in place of your regular toothpaste. Your dentist can prescribe some for you.
- **Follow dietary recommendations made by your dentist, which may include:**
 - Reducing your daily intake of carbonated and/or sweetened beverages (ex. “soda”, sweet tea)
 - Reducing your frequency of snacks that contain fermentable carbohydrates (ex. sweets, candy, crackers, cereals)
- **If recommended by your dentist, use the prescribed antibacterial mouth rinse as directed**

For you to do with your dentist:

- **Return for a caries recall exam in 3 to 4 months**
 - This evaluates your progress and checks for any new dental decay
- **Get new radiographs (x-rays) about every 6 to 18 months**
 - This will check for cavities between your teeth or in other areas that are not directly visible
- **Get a fluoride varnish for all of your teeth every 3 to 4 months at your caries recall exams**
- **Get sealants applied to the biting surfaces of your back teeth**
 - This helps prevent re-infection of cavity-causing bacteria
- **Complete a bacterial test**
 - This measures the amount of cavity-causing bacteria in your mouth. If excessive, it may be recommended that you use an antibacterial rinse at home to reduce this level of infection.
- **If recommended, complete a test of your saliva**
 - This will check your ability to make enough saliva that is of adequate “quality” to fight tooth decay

Name:

Date:

MODERATE RISK

Our assessment reveals you are at a MODERATE RISK of having dental decay in the near future. We want to help you reduce that risk and avoid new decay if at all possible. We recommend the following:

For you to do at home and between visits:

- **Use an ADA approved fluoride toothpaste twice a day**
- **Use an ADA approved 0.05% fluoride rinse from the dental care section of any store**
 - Often referred to as 'Anticavity'
 - Act®
 - Insure ADA approval if purchasing generic form to insure proper release of fluoride
- **Chew 6 to 10 pieces of 100% xylitol-sweetened gum each day**
 - Spry®
 - Search online for '100% xylitol gum'
- **Follow dietary recommendations made by your dentist, which may include:**
 - Reducing your daily intake of carbonated and/or sweetened beverages (ex. "soda", sweet tea)
 - Reducing your frequency of snacks that contain fermentable carbohydrates (ex. sweets, candy, crackers, cereals)

For you to do with your dentist:

- **Return for a caries recall exam in 4 to 6 months**
 - This evaluates your progress and checks for any new dental decay
- **Get new radiographs (x-rays) about every 18 to 24 months**
 - This will check for cavities between your teeth or in other areas that are not directly visible
- **Get a fluoride varnish for all of your teeth at your recall exams**
- **Consider getting sealants applied to the biting surfaces of your back teeth**
 - This helps prevent re-infection of cavity-causing bacteria and can be discussed with your dentist

PROFESSIONAL JUDGMENT OF PROGRESSION OF COMPETENCY VCU SCHOOL OF DENTISTRY

Student Name: _____

Date: _____

Detail Evaluation

ORGANIZATION AND DOCUMENTATION SKILLS	(C)	(P)	(M)	(I)	(NO)
▪ Demonstrates familiarity with project / procedure objectives and steps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Properly organizes instruments and materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Utilizes clinic/class effectively and completes treatment /project in a timely manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Manages patients and appointments effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Accurately and thoroughly completes chart and radiographic entries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROFESSIONAL SKILLS					
▪ Demonstrates courtesy, empathy, and priority for patient needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Displays positive attitude toward learning, and responds appropriately to constructive feedback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates critical thinking and problem solving skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates the ability to self-assess and take corrective action as needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Communicate thoughts and ideas clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates ethical decision making, honesty, integrity, respect, and nondiscrimination in all activities	<input type="checkbox"/>			<input type="checkbox"/>	
CLINICAL SKILLS					
▪ Follows infection control protocols	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
▪ Obtains informed consent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates the application of evidence based dentistry in clinical decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates the ability to recognize and prevent or manage pain and anxiety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates the application of evidence based dentistry in clinical decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates perceptual ability and psychomotor skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Demonstrates safe and effective use of instruments & materials; with proper field isolation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Avoids damage to adjacent tissues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Recruits faculty assistance before complications become irreversible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Professional Judgment Evaluation Criteria:

- (C) Competent: student **consistently** demonstrates behavior and skills essential to beginning the practice of dentistry; works independently as observed by faculty, performance is reliable and does not require faculty assistance.
- (P) Progressing: student **inconsistently** demonstrates behavior and skills essential to beginning the practice of dentistry; works requires some faculty assistance; progressing well toward competency.
- (M) Marginal: student rarely demonstrates behavior and skills essential to beginning the practice of dentistry; work requires additional faculty assistance; not progressing toward competency.
- (I) Inadequate: student never demonstrates behavior and skills essential to beginning the practice of dentistry; work requires significant faculty assistance; behavior and skills need significant improvement.
- (NO) Not Observed: performance or behavior was not sufficiently observed to make a judgment.

(Please see opposite side for completion of form)

Student Name:

Faculty Written Evaluation

Student Response:

Student Improvement Plan (if needed):

Objective:

Objective timeframe:

1.

1.

2.

2.

3.

3.

Faculty Signature:

Student Signature:

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Consortium of Operative Dentistry Educators (CODE)

2016 National Agenda

Prepared by:

Gary L. Stafford DMD – National Director

gary.stafford@mu.edu

2016 National Agenda

MeHarry Dental School

I. Curriculum

a. Integration of Technology in the Pre-clinical and Clinical experience

i. Are you using CAD/CAM in your pre-clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM in your pre-clinical courses?

i. What System?

b. How soon?

2. YES YES

a. Which courses? **Preclinical Operative Dentistry/In the future-Preclinical Fixed Prosthodontics**

b. What System? **CEREC/E4D in GPR**

c. How long have you been using a CAD/CAM System? **1 Year**

d. How are you using CAD/CAM in your pre-clinical courses?
Lecture on onlays followed by hands on use for fabrication of onlay restorations

e. What are the prerequisites for its use? **Lecture**

f. When do students get to use it? **In laboratory setting post lecture**

g. Who provides supervision? **Calibrated faculty**

h. What training did they receive? **CEREC 2 day training session/Sirona Summit 3 day training session/GPR training**

ii. Are you using CAD/CAM in your clinical courses?

1. NO

a. Do you plan on incorporating CAD/CAM clinically?

i. What System?

b. How soon?

2. YES

a. Which courses? **Operative Dentistry Clinic**

b. What System? **CEREC**

c. How long have you been using a CAD/CAM System? **1 year**

d. How are you using CAD/CAM in your pre///-clinical courses?

e. What are the prerequisites for its use? **Preclinical Training**

f. When do students get to use it? **When cases are treatment planned and working with a trained faculty member**

- 2

2. **YES**

- a. What System?
- b. How long have you been using 3D printing?
- c. How do you use 3D printing?
- d. What are the prerequisites for its use?
- e. When do students get to use it?
- f. Who provides supervision?
- g. What training did they receive?

- vi. How to get faculty on board with integration of technology in clinic –
Faculty training /Professional Development Intraoral Scanner, CAD/CAM, Laser, etc.

b. Clinical Organizational Structure

- i. How many pre-doctoral students do you have per class? **60**
- ii. What are your normal hours per clinical session? **8AM-12 PM/1-5 PM**
- iii. How are your clinical groups set-up? **We have changed operation with 5 D4 and 5 D3 students per team in 12 teams**
- iv. How do your clinical groups function? **1 full-time Team Leader per 10 students**
- v. How long have you had your current structure? **Since August 2016**
- vi. Do you plan on changing in the near future? **Modifications have been made and will continue to be made pending feedback and staffing**

c. Screening

- i. How are patients screened for acceptance into your pre-doctoral program?
We have created a screening orientation rotation with students
 - 1. Provide numbers screened and yield if available
- ii. Are you having difficulty finding suitable patients? **Always**
- iii. If so, what are the main reasons? **Income levels of patient groups and cost of treatment procedures. Patient education. Competition with other charitable groups and systems.**

II. Cariology

a. Caries Control

- i. What chemotherapeutics are you using for your moderate and high-risk caries patients? **MI Paste/Fluoride Varnish**
 - 1. Do you use Carbamide Peroxide for caries control? **No**
 - 2. Do you use Sodium Diamine Fluoride for caries control? **No**
- ii. What evidence do you have to support your use/non-use? **Not applied**

b. Caries Removal

- i. Do you teach total or partial caries removal? **Both**

III. Materials and Techniques

a. Bulk Fill Composite Resin

- i. Do you teach the use of bulk fill composite resin pre-clinically? **No**
- ii. Do you use bulk fill composite resin clinically? **No**

- iii. Which material(s) do you use? **Esthe-x**
- iv. What is your preferred technique for use? **Incremental placement**
- v. What evidence do you have to support your use/non-use? **Sturdivent textbook and research articles**

IV. Student Assessment

a. Clinical Grades

- i. What metrics, methods, and cut offs are used to evaluate students in their pre-clinical and clinical experiences? **Rubric grade sheets/Licensure evaluation forms**

To assess dental students' clinical operative dentistry experiences, two evaluation approaches are used. Approach #1 is a four point grading scale of 0-3, evaluating: students' appropriate use of anesthesia, rubber dam isolation, the seven steps of a cavity preparation, and proper condensing and carving. Critical errors, which would result in an automatic failure of the procedure, are included in the assessment as well. Approach#2 (universal to all Meharry clinical procedures) evaluates students' o their professionalism/behavior and overall management of their patient, the patient's protected health information, and their operatory space throughout the appointment. For students' preclinical operative experiences, only approach # 1 is used (minus the use of anesthesia).

Are students evaluated (graded) on their daily clinical procedures? **Yes**

- 1. If so, what metrics or methods are used? **Daily grade sheets**

- ii. Provide Rubrics if available. **OK**

V. Administration

a. Organizational Structure

- i. What is the name of the major decision making body within your school?
 - 1. Who sits on this Council, Committee, Board?
- ii. How many Deans, Chairs, (Department Heads, Section Heads, Program Directors, etc...) do you have?
- iii. Provide school organizational tree if available.

VI. Ethics and Professionalism

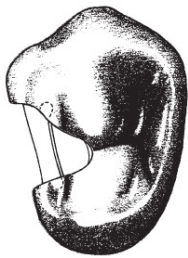
a. Social Media

- i. Have you had any student conduct issues related to the improper use of Social Media?
 - 1. ex...the use of patient photos on Facebook **No**
 - 2. If so, provide examples.
- ii. How do you inform the students of their professional responsibilities? **Student Orientation/Clinical and Academic Policies and Procedures**
- iii. What specific rules/guidelines do you have in place? **Policy and Procedures Manual**
Public Health Dentistry- Dr. Leavelle

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced?
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation?



Composite Bonding-Retention is not required

Amalgam-a retention slot will work facial/perhaps two retention slots (facial and lingual)

VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **Introduced in D1/D2 courses**
2. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **As D3 students**

DCG

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming.
2. How do others teach material removal, particularly OLD composite?
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations?
3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders?

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall? **For a premolar use a 10-7-14 hatchet/ For a molar use a 15-8-14 enamel hatchet**
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? **Amalgam-Place varnish at the ideal cavity prep depth and apply base 1-2 mm from the pulp**

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use. **They are exposed to literature materials in D3 Operative Dentistry**
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. **No**

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)? **Amalgam, composite, veneers, CAD-CAM onlays and crowns**
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? **No**

UK

1. Are you currently utilizing digital impressions in the undergrad clinic? **Yes**
 - a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units **X**
 - ii. scanning intraorally, bridges
 - iii. scanning casts poured from conventional impressions
 - b. Are students designing restorations?
2. What bonding technique are you currently using for direct operative?
 - a. Total etch and wash, generation____
 - b. Selective etch and wash, generation____
 - c. Selective etch and wash, Universal Adhesive
 - d. Other
 - i. What evidence have you cited on which to base your choice?

**Southern CaMBRA Coalition
Agenda 2016**

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? **CAMBRA**

2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
Radiographs/Textbooks
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?
Operative Dentistry

 - b. In which courses is caries risk assessment taught?
3rd year Operative Dentistry/Pediatric Dentistry/ODS

 - c. Is the teaching consistent across courses and disciplines? **Yes**

3. How does caries risk assessment manifest in the clinic? **Taught by ODS last year/This year Team Leaders are responsible**
 - a. How is caries risk assessed and documented in patient records? **On the Odontogram and Risk Assessment Form**

 - b. Do students medically manage caries when indicated? **Yes**

 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis? **Yes**

4. How is competency in caries risk assessment and management assessed over the four years of the curriculum? **Written examinations, clinical knowledge, accuracy of filling out the clinical forms**

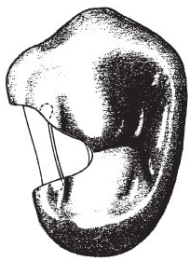
5. How does caries risk assessment manifest in the faculty practice at your institution? We currently do not have a faculty practice

CODE 2016 Regional Questions ECU

UofL

Summitt's textbook recommends the use of conservative preparations for amalgam restorations where possible (picture below).

1. Is the prep design appropriate for amalgam and composite assuming the remainder of the occlusal grooves are well coalesced? **Yes**
2. Is retention needed in the conservative amalgam preparation as indicated? In the conservative composite resin preparation? **No**



VCU

1. How does your school do self-assessment and alignment of rubrics between pre-clinical and clinical courses? **the pre clinical rubrics mirror the clinical rubrics with minor circumstantial variations.**
- 2.
3. If Cariology is introduced clinically, in which year are students responsible for correctly assessing and managing risk? Also, at which point in the students' clinical experience are they responsible for charting active/inactive, and cavitated/non-cavitated caries on the odontogram? **(as soon as they start in clinic)**

DCG

1. How other colleges are teaching ICDAS?
 - a. Jan Mitchell's comments- Have the group discuss also becoming a southeast CAMBRA coalition. It is a natural fit with this group. Sharing info on caries management non-surgically is the obvious adjunct to treating it surgically. I also want to get ahead of the new non-surgical mgt competency required from CODA which is coming. **ICDAS is introduced in the first year and we have implemented a required clinical non-surgical skills assessment 4 years ago.**
2. How do others teach material removal, particularly OLD composite? **We don't have a preclinical lab specifically for removal of composite /amalgam. They usually learn in clinical setting.**
 - a. Does anyone have a good criteria/rubric for repair vs replacement of restorations? **The criteria is presented in lectures but we don't have a specific rubric for it.**

3. In the past we've had really good discussions on the issue of how to assess competence at the pre-clinical level, but there has never been a question addressing this.
 - a. How do people grade practical's? One person grades all, calibrate multiple graders, or alternative grading like scanning? Is there an ideal number of graders? **Here at ECU , we have a digital automated rubric system that requires 2 graders that are blinded and a 3rd grader as the tie breaker if needed. The system's logarithm calculates the level of agreement between student's self assessment and the graders as well the IRR(Inter-rater reliability).**

MeHarry

1. For a class 2 amalgam on a premolar or molar, how far axially is the depth of the axial wall? **We teach students to complete lesion driven preparations.**
2. For a class 2 or a Class 1, as far as depth of the cavity, when should a base or pulp protection be used? **If the estimated distance to the pulp is less than or close to 1 mm.**

UNC

1. Do you teach use of Silver Diamine Fluoride for caries control in the predoctoral or graduate programs? If so, please describe the use. **Yes its used when indicated (rampant decay/ limitations on access to care patients, time constraints)**
2. Do you use a desensitizer containing HEMA under composite resin restorations? If so, please explain the clinical steps. **Yes , we have it available when indicated. For Steps, we follow manufacturer's instructions.**

ECU

1. How many and which Operative skills assessments are required in your institution (pre-clinical and clinical)?
Pre clinical preparations – class 1 amalgam, class 5 amalgam, class 3 composite, class 2 amalgam.
Pre clinical restorations – class 1 composite, class 5 composite, class 3 composite, class 2 amalgam, class 2 composite, class 4 composite.

Clinical – Class 2 amalgam or composite, class 3 composite, class 5 composite or amalgam, non surgical management of caries (to include resin infiltration, sealants, remineralization modalities), Caries risk assessment.
2. Does your institution teach/develop any early visual/perceptual/psychomotor ability skills prior to content related to dentistry? **Yes, We developed a number of exercises (depth and measurement , hand-eye coordination, indirect vision, angle perception, spatial visualization, drawings, handpiece exercises and material manipulation learning blocks.**

UK

1. Are you currently utilizing digital impressions in the undergrad clinic? **Yes**

- a. If so, in what manner?
 - i. scanning intraorally, inlays, onlays, single units **Yes**
 - ii. scanning intraorally, bridges **Yes**
 - iii. scanning casts poured from conventional impressions **Yes**
 - b. Are students designing restorations? **Yes pre-clinically but clinically they participate but faculty member is responsible for the design most times .**
2. What bonding technique are you currently using for direct operative?
- a. Total etch and wash, generation_ **Yes 4th** __
 - b. Selective etch and wash, generation_ **No** __
 - c. Selective etch and wash, Universal Adhesive **No**
 - d. Other
 - i. What evidence have you cited on which to base your choice?
The vast literature that supports the long term stability of 4th generation systems.

**Southern CaMBRA Coalition
Agenda 2016**

ECU School of Dental Medicine, Greenville NC

1. Which caries risk assessment system is used at your institution? CaMBRA? American Dental Association? Other? **Mix of both**
2. How does caries risk assessment manifest in the didactic/pre-clinical courses?
 - a. Who teaches caries risk assessment? Operative? Cariology? Public Health? Others?
Operative and cariology.
 - b. In which courses is caries risk assessment taught?
Cariology , Public health , Pedodontics
 - c. Is the teaching consistent across courses and disciplines?
Yes
3. How does caries risk assessment manifest in the clinic?
 - a. How is caries risk assessed and documented in patient records?
Caries Risk Assessment forms in Axiom. Assessment by clinical, radiographical analysis along with diet analysis, oral hygiene analysis, medication and health history analysis as well as lifestyle analysis. We try to manage the disease by advising preident , xylitol 6g daily, fluoride varnish every 3 months in high risk patients, restricting sugary beverages, sipping with a straw, increasing the amount of arginine in the diet, drinking within 15 minutes versus long periods.
 - b. Do students medically manage caries when indicated?
Yes and they get credit for that.
 - c. Has caries risk assessment influenced the way that caries is managed at your institution on a day to day basis?
Yes, a more systemized and conservative approach is followed.
4. How is competency in caries risk assessment and management assessed over the four years of the curriculum?
Preclinical, CRA is done, Clinically, non-surgical management skills assessment.
5. How does caries risk assessment manifest in the faculty practice at your institution?
Same mindset of being conservative, prioritizing medical management.

CODE REGIONAL MEETING FORM

REGION: Southeast (VI)

LOCATION INFORMATION FOR 2015 REGIONAL MEETING

University: University of Florida

Dates: TBD

Chairperson: _____ Phone # (352) 273-5800

University: _____ Fax # _____

Address: 1395 Center Dr, Gainesville, FL 32610 E-mail _____

List of Attendees: Please complete the CODE Regional Attendees form (See next page)

Suggested Agenda Items for Next Year:

We proposed extending our meeting to include Wednesday afternoon to discuss the Southern CAMBRA Coalition Questions/Answers we added to our meeting this past year.

LOCATION INFORMATION FOR 2016 REGIONAL MEETING

University: University of Louisville

Dates: October 12 – 14, 2016

Chairperson: Dr. Michael Metz _____ Phone # (502) 852-6168 office

University: _____ Fax # _____

Address: 501 South Preston Street _____ E-mail michael.metz@louisville.edu
Louisville, KY 40202

Please return all completed enclosures to;

Dr. Gary Stafford, National Director
Marquette University, School of Dentistry
1801 W Wisconsin Avenue
Milwaukee, WI 53233

E-mail: gary.stafford@marquette.edu
Phone: 414-288-5409
Fax: 414-288-5752

DEADLINE FOR RETURN: 30 Days post-meeting

Also send the information on a disk **and** via e-mail with **all** attachments.

Please indicate the software program and version utilized for your reports.

CODE REGIONAL ATTENDEES FORM

REGION: Southeast (VI)

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